

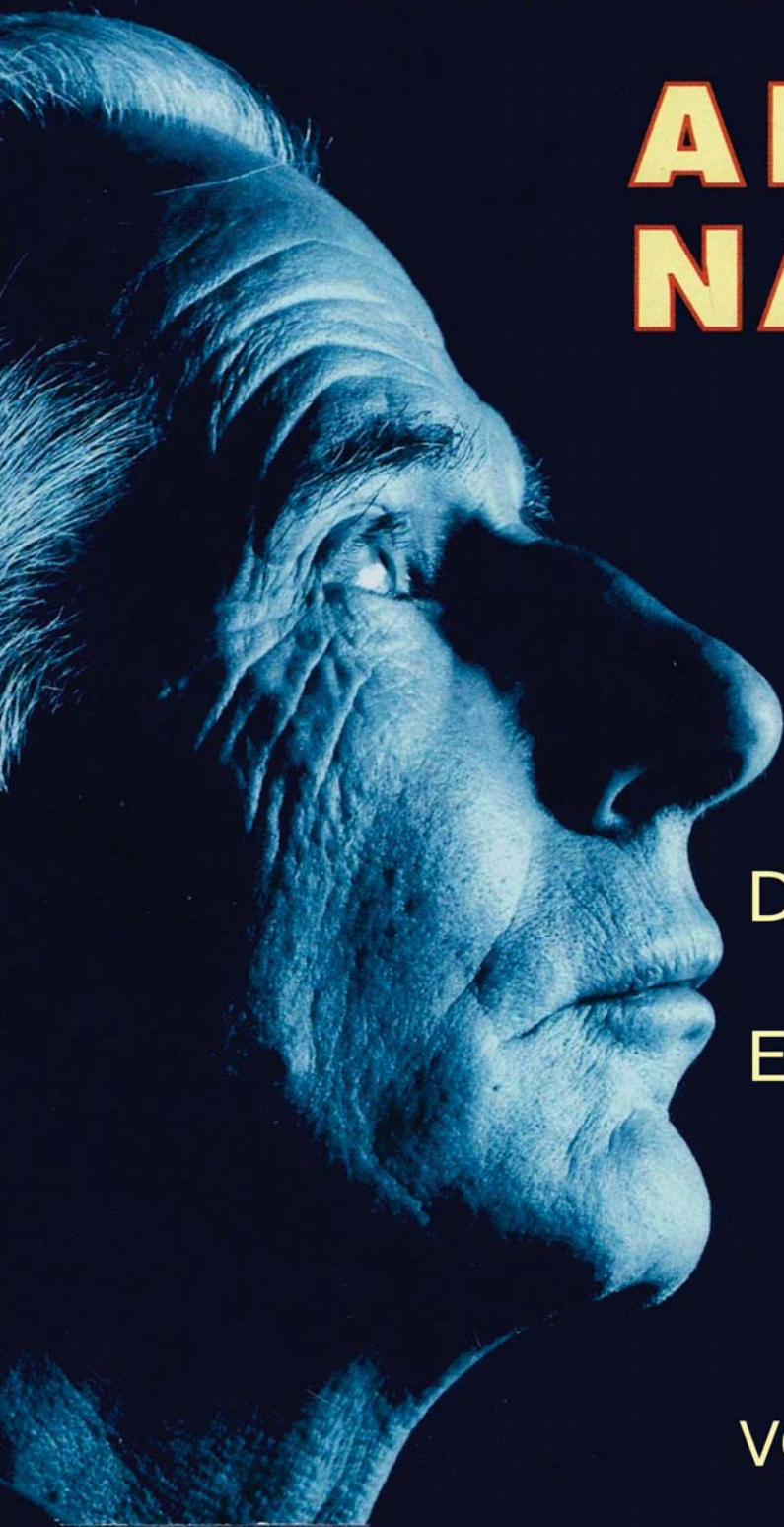
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## **BOOKS**

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## Ideology and Rationality

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### Neutral and Negative Definitions of Ideology

Definitions of the term *ideology* may be grouped in two main classes, those that imply a negative evaluation, such as “there is something rotten about any and every ideology,” and those that are roughly neutral. The first class, which treats *ideology* as a dyslogism, may be further divided into two subclasses: definitions that stress illusion, preconception, fanaticism, mistakes, or narrowness, but *not* insincerity, and those that *do* refer to insincerity, bad faith, rationalizations in a Freudian sense, distortion, concealed interests, or naked power orientations. Most of the couple of hundred definitions provided in a previous work (Naess et al. 1956) conform to such a classification into neutral or negative definitions.

Rather than starting out here with a dyslogistic normative definition of the terms *ideology* and *ideological*, I define *political ideology* in a roughly neutral way, as for example has been done by F. Gross (1971: 5): “A political ideology is a system of political, economic, and social values and ideas from which objectives are derived. These objectives form the nucleus of a political program.”

Perhaps the term *system* in this definition might be dropped in favor of *aggregate* or *conglomeration*, since “system” suggests a rigid rather than a loose connection between parts of the ideology.

Political ideologies are predominantly rational and objective in various

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senses. Intersubjectively and interculturably testable, *sachlich*, their ideas may be true or false, valid or invalid. In principle, a scientific theory may be a mass of mistakes, as in the case of modern cosmology, but it is nevertheless objective. The same applies to testable ideas in general. However, ideologies are only *predominantly* rational: there are degrees and there are exceptions.<sup>1</sup> Nevertheless, the more or less controversial exceptions should not color the metatheory of political ideologies. As metatheorists, conducting *descriptive research* on political ideologies, we influence political life in different directions according to how we speak and write about political ideologies. The present paper is thus partly motivated by a desire to contribute to the partial rehabilitation of political ideologies from derogatory pronouncements made by political scientists and other groups of “intellectuals.”

### Empirical Tests of Rationality

The rationalist and objectivist thesis has an empirical foundation. Widely known material in support of the thesis was collected by UNESCO from 1948 to 1949, when—with the superb collaboration of Stein Rokkan—I led its project on the ideological controversies between East and West concerning democracy. I shall have to describe the project in order to illustrate what might be called successive approximations to rationality through debate.

UNESCO invited about four hundred political scientists and well-known defenders of political creeds to describe their views on ideological and controversial issues at the beginning of the Cold War. A long and complicated questionnaire was duly answered, sometimes in the form of carefully written articles. Excerpts from thirty-three answers,<sup>2</sup> together with an analytical survey, were subsequently published. The resulting book was immediately sold out and never reissued.

I shall now convey a crucial lesson of the project. Each answer was mimeographed and sent to the other participants. Critical and polemical sections were commented upon, and in some cases we were able to organize a series of dialogues between fierce ideological opponents. The contact sponsored by UNESCO led to successive clarifications of disagreements and to the elimination of misunderstandings and unnecessary rhetoric. Although the dialogue sharpened some of the disagreement, and although

contrasts became more sharply defined, nevertheless the whole process served to increase the level of rationality and objectivity. When one unambiguously stated opinion contradicts another, both cannot be true. Mistakes, however, do not automatically reduce rationality. If they did, science would have to be classed as irrational.

Accusations of *Unsaßlichkeit*, of motivational distortion, and of all the other features that push political ideologies into cognitive disrepute were weakened or tended to disappear. On the whole, the sharp disagreement concerned *testable hypotheses*. This holds true if we do not suggest more severe requirements of testability than are adopted by sociology, history, or cosmology.

Whereas much of the UNESCO material is published in some form, my second batch of empirical material is largely unpublished, or accessible only to those who read Scandinavian languages. In short, it is the formulation of, and the debate concerning, what has been called green political ideology. It is not a very definite group of ideas; rather it is a family of related and very broad views that fit exceptionally well Gross's definition of ideology.

### Deep Value Priorities in Ideology

In political ideologies, political objectives and programs are derived both from deep-seated value priorities and from hypotheses about the world. For example, a decrease in or freezing of the material standard of living in the rich industrial countries is proposed as an expression of world solidarity, not just for reasons of resources, or to avoid north-south confrontations, or because the recent increase in the material standard of living does not seem to have increased the well-being of the average human being. This proposal is *in part* motivated by adherence to "universal solidarity" as a deep value priority, and to its realization as a hypothesis through politics.

A second example can also be drawn from Green ideologies. Concepts relating to an increase in the quality of life are advocated on fairly philosophical grounds in order to supersede those related to the standard of living. From this new value priority, new objectives are derived that contrast with traditional social-democratic views. Indeed, the social-democratic government in Norway has been provoked to put forth a political program

for 1978–1981 that takes notice of the value debate. Eight main goals of its policy are formulated, and its concrete political proposals are worked out as a consequence of the value priorities' acting as normative guidelines.

A third example concerns how a higher regard for the needs of future generations—resources, clean oceans, diversity of cultures and ecosystems—clashes with prevalent priorities. The justification for this new approach requires depth of argument and touches the levels of philosophy.

Of course, there are many other examples from many parts of the world that show the vigor of political ideologies operating on a fairly high level of rationality combined with deep value orientation. "Deep" in this context refers to chains of argument: "Why *A*? Because *B*. Why *B*? Because *C*. Why *C*? Because *D* . . .," and so on. The farther such chains extend, the "deeper" are the questions and the answers.

A major question remains concerning the intersubjective and intercultural testability of value priorities. How can a *proposal* for increased global solidarity be tested for goodness or validity? This depends on the arguments for the proposal. It is largely an empirical question as to which arguments actually are used by those who defend an ideology, and it turns out, on the whole, that the weight and relevance of the arguments are testable. In the present case, for example, while it may be difficult to test some of the arguments concerning a decrease in north-south confrontations, it is nevertheless not impossible. The argument that overconsumption in one part of the world in the face of hunger in other parts of the world contradicts the ethics that most consumers wish to practice, is itself testable. This argument does not proclaim the validity of an ethic, but the ideology is, after all, a political one, and not a complete system comprising ethics. The argument is testable as a hypothesis about wishes and consumers.

Value-oriented arguments against Norway joining the European Economic Community were based on highly testable predictions, as were the arguments for EEC entry. Both sets of predictions, in the form in which they were stated in the mass media, have now been tested and, on the whole, confirmed. Some of the more carefully worded predictions remain either untested or unconfirmed. In any case, it is not warranted to complain about an essential lack of testability in such value-oriented arguments.

In short, a proposal is good in relation to its value statement, and the value statement is tested by asking what the value is supposed to be valu-

able for. There are hierarchies of aims and goals, and therefore of rules, of norms, and of values. In ideologies, as in scientific research, rules and values have no definite ultimate foundation. Or if they do have, such as with the basic rules of inference in a system of logic, there are limits to testability. Without trying to take up the philosophical problems encountered here, I contend that such a limitation does not justify a denial of rationality.

As already indicated, however, ideologies do differ in this regard. A distortion of problems may take place, for example, as is ably argued by Raymond Aron (1957: 239–40): “Sometimes the [ideological] debates truly reflect the problems which a nation must seek to solve, sometimes they distort or transform them in order to fit them into would-be universal patterns.” The *intercultural* testability is realized insofar as the special conditions within one nation or culture can be described so that they are roughly comprehensible to outsiders. In other words, there is no difference in principle that makes “foreign” political ideologies inaccessible to research on ideology.

### The Irrationality of Our Opponents’ Ideology

There are certain misunderstandings that contribute to the view that political ideologies either are irrational or function irrationally.

1. Violent clashes of will and crude confrontations are taken as proof of the irrationality of the sets of ideas of the combatants. Certainly, if the will to compromise is lost, political confrontation is likely to follow, but this may be taken into account in a rational fashion within the ideologies: “if they do not accept our proposal, we shall win.” Thus, the fight itself is not part of the ideology.
2. We attribute blindness, partisanship, and closed-mindedness to our ideological opponents, and since we do not regard ourselves as ideologists but as being politically open-minded and reasonable, accusations are then turned upon ideology in general.
3. We occasionally tend to identify the ideology of our opponent with his slogans and catchwords, or with the least defensible of its versions, whereas we select carefully what we are willing to identify as the views of our own group or party.
4. The closed-mindedness of our opponent is conceived as being typi-

cal of his ideology. In fact, it may owe largely to his having already heard most of what we tell him. He has already decided that our view is untenable, and therefore he is impatient and will not listen. The simple explanation for his stubbornness may be unconvincing to us, because we feel sure that *if* he really listened carefully he would change his opinions—or else we have to consider him stupid or dishonest.

5. The alleged fanaticism of our opponent or his stand has a similar genesis. Here, though, a set of rhetorical rules of the political game is relevant. Suppose, for example, that a policy is *defended* by a dozen pro-arguments and by a dozen arguments against counterarguments (“cc-arguments”). Then the rhetorical game is such that no admission of the slightest relevance or weight of a main counterargument, or a ccc-argument, is acknowledged without an immediate proclamation of the superior relevance or weight of a corresponding cc-argument or cccc-argument. So, within the framework of this game, no concessions are granted. Given a negative attitude toward the opponent or his stand, the rules of the game are falsely attributed to close-mindedness and/or fanatical beliefs. The negative conclusions are subsequently transformed into derogatory utterances about ideologies.

6. The overwhelming complexity of political considerations makes it necessary for a politician to rely heavily on intuitions in forming a policy. However, the rules of the game demand that, if pressed, he should be able to furnish arguments. It seems that, lacking real arguments, he might resort to anything, however irrelevant or trivial, but the way in which the “answer” is provided suggests that the policy defended is largely independent of the support of those so-called arguments.

### Ingroups and Outgroups

An exact comparison of expressed doctrines requires distinctions in terms of ingroups and outgroups. There is an ingroup version made by the adherents of doctrine *A* describing itself and doctrine *B*, and an outgroup version of doctrine *A* described by the adherents of *B*. An important job of the researcher is to explore the possibilities of reducing these differences in order to arrive at a single version of each doctrine. This job is essentially the same whether one is comparing trends or schools in social or natural science.

What if the reduction of one version is impossible without changing



the very opinions of the adherents? What if the mutual image (for example, the communist image of anticommunism and vice versa) is an essential part of the ideologies?

The conclusion is *not* that there is a kind of basic irrationality at hand, or that we encounter irreducible perspectives when structuring the world. The conclusion is rather that the argument of one group does not convince the other group. This was a main conclusion of the UNESCO examination of the East-West ideological controversies on democracy. Some opinions are changed through dialogue and added information, but in most cases this is not adequate to the task of changing the essential parts of an ideology.

An important ingredient in descriptions of outgroup opinions is the hypothesis that the outgroup says one thing but means another. The outgroup says that it favors protecting small business against big business, but it really does not mean this. The outgroup answers that it does *really* mean it, and that the ingroup (*A*), which is its (*B*'s) outgroup, only accuses *B* of duplicity in order to discredit it. Group *A* really understands that group *B* sincerely means to protect small business.

The situation resembles that of the experimental theory of learning in psychology. The different schools—one led by E. C. Tolman with Berkeley as a center; the other, by C. L. Hull presiding at Yale—engaged in a debate in which one class of disagreements touched the very opinions of the contestants. Tolmanic views about what Hullian theory of learning actually *asserted* differed consistently and permanently from the ingroup view, and vice versa. The disagreements were never resolved. Although some might say that this shows the irrational character of theories of learning, it should be noted that essentially the same situation holds in debates about the so-called Copenhagen interpretation in quantum physics.

Clearly, any debate carried through in all seriousness may end without any major concessions from either party. This in itself, however, does not imply irrationality, bad faith, or different basic perspectives on the world. There may indeed be honest disagreement; for example, as to the *priority* of protective measures for small business under various circumstances.

The goals or values of a political program are always in conflict with one another, in the sense that maximum satisfaction of one implies less than maximum realization of another.

The maximum *persuasive* power of representation requires the presentation of a program to slur over the mutual conflict of goals and values. The maximum *convincing* power of representation requires difficult, complicated, and bulky presentations, unsuitable for mass communication. In practice, one has to meet the politicians in more or less “closed” sessions to get hold of some of the most satisfactory formulations from the standpoint of descriptive research on ideology. (In this paper I have that kind of research constantly in mind.)

I say “some of the most satisfactory formulations” because versions that are cognitively less satisfactory but nevertheless more effective are important to the understanding of how an ideology actually functions and also of how the politicians wish that it should function. They do not usually regret the effects of certain misunderstandings arising from vagueness, ambiguity, or the concealment of conflicts between goals.

### The End-of-Ideology Movement, *Ideologiekritik*, and Hermeneutics

The reaction against very vague and very general political convictions is sometimes carried too far, as can be seen in the end-of-ideology movement. Raymond Aron, in his justly famous work *The Opium of the Intellectuals*, fought the “myth of the left” and “the myth of the revolution,” but he did not stress the need for deep, value-oriented ideologies that can cope with deep political, national, and global problems. Moreover, after his scathing criticisms, what did he then put forth as valid political goals for France? “To organize a genuine community between Frenchmen and Moslems in North Africa, to unite the nations of Western Europe, so that they are less dependent on American power, to cure the technological backwardness of our economy—such tasks as these might well arouse a clear-sighted and practical enthusiasm” (Aron 1957: 317–18). Today, a political ideology worthy of enthusiasm would have to dig much deeper.

It is an unfortunate misconception that the degree of fanaticism must be in proportion to “deepness.” On the contrary, an awareness of the immense distance between ultimate premises and concrete proposals for action in a definite political situation is a protection against fanati-

cism. In the long term, this awareness is something that can be fostered everywhere.

The *Ideologiekritik* movement in Germany has contributed to the interest in close relations between political views on the one hand, and vested interests, social position, and economic system or, more generally, means of production on the other. It has stressed bad faith, distorted communication, and other phenomena referred to in negative definitions of ideology. Unfortunately, *Ideologiekritik* has rarely been carried out in research programs with adequate methodological tools.

The same holds for hermeneutical and holistic interpretations of ideology, which stress basic differences in ways of understanding the world and subsequent basic, more or less insuperable differences in political language and views. Here, an overreaction against logical positivist views seems to have reduced the interest in plain descriptive comparisons of existing ideological trends.

Doctrines stating that political ideologies are irrational promote irrationality in politics. They tend to have a slightly self-verifying character. In Scandinavia the political philosophy of *Ideologiekritik*, and especially the inclination to look upon social-democratic ideology as a mere reflection of means of production or naked power constellations, has made it difficult for young people to take their opponents seriously, and thus led them to favor confrontations rather than serious debate. There can be no sincere debate when the opponent's way of understanding the issues is considered to be determined by his social position.

## Conclusion

In conclusion, I would like to stress that the views defended in this paper are consistent with a serious concern about the irrational features of present-day political ideologies. Nor do these views imply an overestimation of the causal weight of ideological considerations in shaping the world. The direction of development of the rich industrial societies may be largely independent of what politicians or others are thinking and saying. To a large extent, political actions may be considered as minor adjustments to trends that are out of control. Further, in spite of the vastness of govern-

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mental organizations, their power over technological trends may be rather modest.

Having made this concession not only to irrational but also to all non-rational factors in political developments, I end with a plea for plain descriptive research on ideology. It bears repeating that such research tends to confirm the predominantly rational and objective character of ideologies and of ideological debate.

## II

### PHILOSOPHY OF SCIENCE

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## Science as Behavior: Prospects and Limitations of a Behavioral Metascience

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### Metascience from the Far Outside and from the Near Outside

The various sciences of religious prayer do not presuppose the existence of any gods. If a religion with a *G* is studied, the researcher does not have to be a believer in *G*. The sentences he writes have meanings, truth-values, and designated objects that are independent of the question of whether *G* exists. The phenomenologist of religion does not study the believer's relation to his god, but the believed relation. If the believer reports that lately his prayers have been heard and rain fell on his lands, this is used as material, as object, for analyses of various kinds. As to the validity or truth of the believer's assertions (insofar as they are assertions), the phenomenologist of religion retains his *epoché*. The same holds for the existence of any objects of religious worship.

How far is it possible to maintain such a detachment and still understand what is supposed to be studied, namely, religion?

The programs for a science of science that are the primary concern of this paper are characterized by looking at a scientific enterprise (or a part of it) as an object to be studied "from the outside," not as an undertaking to engage in and improve upon. They are phenomenological insofar as they maintain, more or less, an *epoché* in the sense just described.

The qualification "more or less" is essential because there are theoretical as well as practical limits to the degree and extent of attainable alienation from the claims of scientists. Beyond certain limits, it becomes more

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and more doubtful whether what is studied is still science. After all, the practicing scientist explains what he is doing in sentences presupposing the existence of a vast number of objects—elementary particles, matter waves, stimuli, drives—and what he refers to as the scientific enterprise is defined in terms of intentions and aspirations.

On the other hand, the basic aim of metascience as discussed in this article is to study a scientific enterprise without engaging in it. The scientist himself not only uses but also mentions sentences in his own discipline. His work consists partly in comparing contemporary theories, which implies neutrality within certain narrow limits. When these limits are widened, the conception of metascience envisaged in this article emerges. An answer to “What is cosmology?”—as a piece of metascience from the near outside—would describe the contemporary cosmological undertaking but would take part in assessing neither the truth-value nor the “fruitfulness” of the various theories, nor of the specific presuppositions of that discipline. This requirement, if stated clearly, implies that the metascience cannot even presume that there is a cosmos such as is described by the cosmology under study.

Falsification and rejection of a particular theory should not occasion retraction of anything said in the genuinely metatheoretic description of the theory and of its prior acceptance. However, because the falsification of a theory sometimes also undermines the reasons for accepting the existence of certain objects or entities in terms of which the theory is described, the program of the scientist of science must be to eliminate sentences that presuppose their existence. It will, however, retain names naming the expressions used in the theories studied. “Cosmology,” for example, may be used in the metavocabulary as a name of the expression “cosmology” in a cosmological textbook.

To avoid the very special problems confronting a sociology of sociology, a theory of learning of theory of learning, or a logic of logic, I shall limit the expressions “a science of a science” or “*x*-ology of *y*-ology” to cases in which *x* and *y* are different. That there are special problems connected with “*x*-ology of *x*-ology” does not impress scientists so much as philosophers. Thus, E. C. Tolman (1932: 430), the purposive behaviorist, says that he himself asserts “that all human knowledge, including physics and purposive behaviorism and our own present remarks, are but resultant of, and limited by, human behavioral needs and behavioral capacities.”

I shall discuss the attempts that have been made to supply the conceptual tools for a certain kind of factual science of science, the behavioral. The discussion will, I think, bring to light considerable theoretical difficulties inherent in the programs of such a science of science. Whatever the ultimate limitations of a molar behavioral view and way of attack, however, I believe that this approach will continue to be a potent agent in the carving out of new fragments, disciplines, or departments of science.

We are in a position to describe a psychological system as an object only when we place ourselves within a frame of reference that is different from the ultimate, specific premises and rules of that particular system. This does not necessarily force us out of any psychological frame of reference whatsoever (see S. Koch's *Psychology: A Study of a Science*, and similar undertakings). The studies from the near outside are not independent as to general presuppositions of the science. The objects of the science are presumed to exist. A revolutionary change in beliefs concerning these objects might therefore affect the acceptance of the metascientific theories from the near outside.

### **Research Behavior Units: A List of Scientific Doings**

Behavior conceptions are generally pragmatic and functional. They try to focus on the deeds of the researcher and describe his theoretical results in terms of achievements and adjustments, such as bringing order into something.

In one sense, the scientific enterprise is described by its practitioners themselves in terms of acts or deeds. These descriptions may be improved upon by researchers looking at other researchers from the outside, but still participating in general. This aspect is what Albert Einstein (1934: 30) had in mind in his maxim, "If you want to find out anything from the theoretical physicists about the methods they use, stick close to one principle: don't listen to their words, fix your attention on their deeds."

The behavioral metascientist will find that the scientists themselves have, in part, a vocabulary that seemingly describes a behavioral aspect of the general scientific enterprise. Let us suppose he takes over the terms in this vocabulary.

The initial behavioral metascientific vocabulary will accordingly con-



tain terms in general use among practicing scientists: observing, experimenting, measuring, classifying, describing (in gestures, writing, or speech), explaining, predicting, discovering, inferring, guessing, interpreting (symbols, processes), providing, deducing, calculating, justifying, presupposing, defining, discussing, refuting, accepting as working hypotheses, posing a problem, proposing conventions, accepting conventions. In what follows I refer to this (fragmentary) list as the list of "kinds of doings."

The terms themselves permit interpretations in different directions, some of which lead outside the behavioral aspect of science. The location of the boundary depends on the interpretation of the key terms *behavior* and *science*. "Located outside" is a strictly logical, or formal-logical direction. For example, logicians of science such as Karl Popper stress the view that they are concerned with relations between statements of science, such as implication, and that terms like *observe* and *falsify*, as used in the logic of science, have nothing to do with processes in time, as do psychological events. In studies that are not logical in a strict sense, but often so called, the terms of the list of doings are likewise taken in nonbehavioral senses. Rather, one is supposed to study the *logic* of the use of "observe" and "falsify." What the scientist actually does need not be described in the terms of his factual science.

Even when (as throughout this paper) "behavior" refers to the behavior of *living* beings, there is an institutional, more or less purely sociological sense of each of the words listed that falls outside the behavioral aspect of science. Thus, if one were to contribute to the institutional sociology of science, the accepting or rejecting of conventions would certainly be central themes, but the subject of inquiry would ultimately be defined, not in terms of behavior, but in terms of institutions. Furthermore, there may be a phenomenological interpretation, essentially bound up with the philosophy of Edmund Husserl or with related philosophies.

All the terms of the list, however, at least in one plausible interpretation, do refer to doings of human beings as individuals or groups. The characterization of observing, experimenting, and the others as "doings" is appropriate and significant in various degrees. Concerning explaining as a kind of doing one may, for example, ask, Who was it that explained this phenomenon? Did he explain it completely? When did he start? Has he yet finished? Have others explained the same? How did he explain it? Did he

do it well? Did he do any deducing in explaining? Why did he do it as he did? Could it be explained better otherwise?

Approaching his subject, the metascientist announces his intention to study some area or aspect of the scientific enterprise. The words he uses when he does this are not yet those of a metalevel; we may conveniently conceive of him as a scientist announcing his intention to other scientists in their common jargon. He may, for example, say that he intends to “study our explanations as explanations.” In spite of initially *using* the term *explaining*, the behavioral metascientist is committed in principle, when carrying out his intention, to taking the occurrences of that term in speech and writing *as objects*.

What this implies is conceived differently by metascientists of different philosophical inclinations. To some it implies abstraction from intended meanings and a focus on the extensional aspects—for example, on the string of letters e-x-p-l-a-i-n-i-n-g, or on a certain phonetic unity. By others, among them some phenomenologists of Husserlian inclinations, the object “explaining” is taken as an intended meaning.

If it seems convenient to the metascientist, he will continue to use the term *explaining*, but as a common name for occurrences of the term *explaining* in certain scientific contexts, or as a unit of intended meaning. To obtain fluency of use on a new level, he must undergo a process of unlearning or “extinction,” which poses practical difficulties that I shall not discuss. Analogous difficulties have been discussed elsewhere, for example, in literature dealing with the unlearning of natural or physical geometry when starting on pure or abstract or axiomatic geometry. I shall here assume that the extinction problems of a metascientist can be solved and that his objects can be named and identified by using the ordinary terms of the practicing scientist with new metalevel meanings.

One of the best surveys of pertinent behavioral literature is to be found in Campbell (1959). It refers to works by D. Bakan, G. Bergmann, L. Bertalanffy, E. Brunswik, D. T. Campbell, H. Feigl, W. Köhler, K. Lorenz, R. K. Merton, J. Piaget, G. Polya, E. C. Tolman, B. Whorf, and others. Most of these contributions have been made under the spell of a particular ideal, that of nomothetic science. There is a premium on general behavioral *laws*, as these quotations attest: “Categorizing is the means by which the objects of the world about us are identified.” “[B]y categorizing as equivalent dis-

criminally different events, the organism reduces the complexity of its environment." As formal scientists studying the research behavior of a scientist, we should investigate inventions in the light of his discriminatory behavior and capacities in general, his perceptions ("what he sees"), and his discriminations of degrees of convenience: "We invent logical systems such as logic and mathematics whose forms are used to denote discriminable aspects of nature and with these systems we formulate descriptions of the world as we see it and according to our convenience" (see Bruner 1956: 7–21). "Attainment of concepts" is defined as "the behavior involved in using the discriminable attributes of objects and events as a basis of anticipating their significant identity."

It seems more hopeful to look for structural and phenomenological accounts, taking behavioral science of science as primarily an idiographic discipline.<sup>1</sup>

### Value of a Total Behavioral View

By a total view of science, I mean a perspective or vision that, at least implicitly, embraces any part whatsoever of science as well as science as a whole.<sup>2</sup>

The implications of a total view, for example of a logical or sociological character, may in principle be carried through consistently in the form of an elaborate construct, or emerge without being noticed by those who share the view. Thus, a psychologist immersed in research on general features of learning processes, using rats in a more or less natural environment (not inside elaborate machinery as has been done recently), will in the long run, or remarkably soon if intensively engaged, acquire a very special way of looking at living beings as systems of behavior. For the psychologist or philosopher who is interested in basic ways of looking at and conceiving the world, any special views generalized or inflated into total ones are of great interest. A behavioral total view has an intrinsic philosophical interest.

The professional behavioral point of view, like many other professional views, has a strong intuitive component. In some researchers (Brunswick, Naess, Tolman), it has had the character of a vision. To those who do not share the intuition, more or less general statements about science as behavior that are obvious to the behavioral scientist sound far-fetched and un-

sound. For example, to look at *proving* as a piece of behavior or doing is rather rare and, to most, rather unnatural. When it is looked at freshly and consistently in this way, however, certain relations are immediately evident that are sometimes judged to be nonexistent by the philosopher or the mathematician, who habitually takes a logical point of view in science of science.

The selection of the terms of rule formulation is made on the basis of existing rules and habit formations among the prospective users of the rules by the rule senders. If any major variation in habits occurs, the rules will mislead or, rather, result in indefiniteness. This will be discovered, for example, by a contradiction or a non sequitur within the formal system. "A calculus is never completely regulated [*geregelt*] in the sense that the rules for manipulating the sign complexes prescribe perfectly unambiguously the way of manipulating" (Naess 1936a: 152). Kaila (1941) argued that this view does not make sense, since we have proofs of the completeness of the calculi or propositions and of the predicates. When the rule giver and the rule follower are seen behaviorally "from the outside," however, the incompleteness is intuitively clear. It is also clear that "behavioral incompleteness" is different from incompleteness as conceived by a participant in logical or mathematical research. Kaila's argument is conclusive only if the metalevel intended in a consistent behavioral account of rules is utopian or impossible in principle. If the latter is the case, the behavioral "vision" is self-deceptive, and Kaila's view is correct.

Historically, the behavioral point of view gained its strength from a dominant trend in psychological methodology stressing the importance of defining the objects investigated in terms of observables. "Behavior" came into favor in part because of a kind of maxim that a person's behavior is completely and conspicuously observable. Because of its genesis, the behavioral point of view might be considered to be infected with a latent "observationism." There is, however, no necessary connection between taking a behavioral point of view and "observationism" as defined by Peters (1951), for example. The behavioral point of view is independent of operationism and logical behaviorism; it does not imply that research activity must start (in time) with observation rather than with formulating a problem, with getting an idea or hunch, or with a need to test an idea already there. What is implied in the idea of behavioral science of science seems rather to be a

view of the researcher from the outside rather than as a colleague. The expression "from the outside" is to be taken in the metaphorical sense of "as a nonparticipant in the researcher's special doings" rather than in the sense of concentrating on his gross overt movements.

In practice, for a nonparticipant the possibility of saying anything of interest about the researcher seems to depend on being or at least having been a colleague. The behavioral "vision" therefore depends on a process of extinction (in the terminology of learning theory); and because of the large scope of this extinction, it is tempting to say that it depends on a process of alienation (*Entfremdung*).

The value, then, of a behavioral view as a total view has several components: (1) as a philosophical system or subsystem of the "alienation" class, (2) as a means of keeping apart and working out in isolation the logical, factual, and other aspects of a vague or general question, and (3) heuristically, in suggesting concrete behavioral research projects.

### The Behavioral Approach and Behaviorism

The behavioral accounts of science are highly sensitive to the use of the term *behavior* in the conceptual structures of *psychology*. We must tackle the problem of what behaviorists mean by behavior.

To eliminate certain confusions, it should be borne in mind that behavioral scientists have not intended to follow the "ordinary usage" of *behavior*. In the vernacular, "to behave" is usually qualified without reference to definite forms of behavior. The answer to "How does he behave?" is not "He is running" or "He is testing his hypotheses," but the provision of adverbial qualifications like "admirably" or "badly." To report on behavior and separate it from any evaluation is itself to behave rather strangely.

Let us inspect an astute behaviorist's comments on an example of behavior.

According to B. F. Skinner (1953: 15), "Narrative reporting of the behavior of people" is "part of the sciences of archaeology, ethnology, sociology, and anthropology," but "only the beginnings of a science." As an example of narrative reporting about behavior, Skinner uses the highly instructive sentence, "She slammed the door and walked off without a word." Such a remark, however, is typical of a participant in social events,

not of a scientific observer. Another witness might have reported the “same” event as “She ignored his question, moved slowly toward the door without looking at anybody, and disappeared.” Still another might have reported that “After this, she did not do anything—she just left.”

If every truthful, conscientious participant’s account is taken as an observational basis, behaviors will be strange, multidimensional events indeed. On the other hand, if a certain selection is made—for example, if “She shut the door” is preferred to “She slammed the door”—a process of behavioristic purification is started that seems to lead to absurdities. What would be the correct, nonparticipatory description in which only the public, molar behavior itself is reported?

Let us imagine that an ordinary behavioral description is made more and more detailed and complete. Will it ever include a kinematic description in terms of smaller and smaller segments of behavior? That is, *prima facie*, very unlikely. Let us try to formulate a complete behavioral description of an event, starting with an everyday description—let us take “She slammed the door.” Is it true, as Skinner argues, that behavior is a difficult subject matter for science “because it is extremely complex”? It would seem that if the event, which took place within the interval of one-third of a second, were described kinematically in a ten-page report as a *complex movement*, the report, for all its length, becomes no more accurate as a description of her slamming the door. The real complexity is related to the “social structure” that may or may not make an event a case of slamming.

Edwin R. Guthrie (1935: 29 ff.) uses terms such as “the continuing flow of behavior” and “total behavior” and suggests that science cannot cope with it in its entirety. This suggests that Guthrie wishes to define behavior in terms of movements.

What is indeed difficult is to make a *report* of the event “itself” that can be used as a *common basis* for various interpretations, some in terms of slamming, others in terms of mere shutting. I suggest that an “objective” report by a specialist in acoustics and a specialist in limb movements, “on the movements and the resulting noise,” would scarcely constitute a report that could be used as such a common basis. On the other hand, if the participants’ reports are taken as ultimates, one may no longer speak of different accounts or interpretations or meanings of *the same* event or behavior.

Guthrie (1959: 165) has stressed that “the hope that response could be

treated just as "movements in space" failed to carry us very far toward the understanding of behavior. "Patterns of stimuli and patterns of response have their psychological significance and usefulness tied to their patterning—pattern as pattern must be recognized and dealt with." *Can* pattern as pattern be recognized? It seems that a pattern must be a pattern of *something* within or on something. Guthrie's critique of "an entire generation" (Koch) of stimulus-response theorists leaves us in doubt as to what will be the subject matter of the next.

There is, of course, no reason a priori why "behavior" and forms of "behaviors" cannot, in spite of unorthodox semantics, be useful key terms within (so-called) behavioral science, that is, as terms suggesting a witness's view from the "near outside." However, behavior must then be dissociated from reports about "movements" and associated intimately with terms such as *doing*. "What is he doing now?" rather than "What is his behavior now?" is what is answered by accounts of the kinds that molar behavioral scientists class as observational. The usual answers about what somebody is doing are quite straightforward, in terms of the participator, at the witness level, not at the level of a complete stranger. Projection tests show that different people will answer the question "What is he doing?" very differently, "seeing" different doings. The resulting accounts are understandable and of interest to the acting person as true or false accounts of what he really is doing. If a report on mere movements is offered, he may legitimately protest, for the result is to substitute movements for doings. The same kind of protest is justified if the doings are in terms of other "far-fetched" frames.

Even in the cruder forms of behaviorism, "learning," "searching," "finding," and "making hypotheses" were not defined or conceived as classes of movements. In the field of rat learning, it was early stressed that the learning of a maze is not the establishment of any kind of definite sequence of movements or overt behavior fragments. In certain experiments mazes were flooded, yet rats easily found their food by swimming in spite of having learned them by running. Similarly, a description of research in terms of behavior must not be expected to consist of descriptions of concrete pieces of behavior (behavioral "episodes") corresponding to sentences of the kind "N. N. now falsifies the hypothesis *H*" and other sentences referring to the doings of scientists.

There is some truth in Ryle's contention that there has been a kind of "official" program in psychology to investigate states of consciousness as such, but since the famous article by William James (1904), "Does 'consciousness' exist?" the mind-stuff theory has not had much influence in psychological research. The notion that immediate experience can be investigated as mind-stuff and separated from the "material" world was not taken seriously, and molar behaviorists rejected the dichotomy between "sense data" and "physical reals."

So much in defense of the behaviorist's general view. As regards the *results*, the view suggested by R. Peters (1951), that these psychologists were rather sterile, can scarcely be taken seriously in light of the history of psychology since World War II (see Steward 1954).<sup>3</sup>

My main contention in this section is that certain psychologists who called themselves behaviorists worked within a conceptual framework that proved adequate in dealing with large areas of problems and that directly furnishes a workable research program for a factual science of science. It will not, however, automatically be a science of science at a genuine metalevel, studying the scientific enterprise as an object, but rather studying additions to science at the object level. A program of step-by-step elimination of participatory assumptions is called for, starting from "nearest outside."

A scientific enterprise is seen from the near outside within a contemporary framework more or less congenial with the enterprise studied. This implies that there is, strictly speaking, no "actual scientific practice" or "methods such as are actually used" to be investigated behaviorally from the far outside. There are only practices as seen by participants in research, more or less colored by definite traditions and schools, and by prevailing terminological and conceptual idiosyncrasies and ideological convictions. The slogan "Do not listen to what the scientist says, but study what he does" is misleading. One must listen and take part.

Later I shall turn to certain grave difficulties confronting those who try seriously to implement a program of a science of science that consistently occupies a genuine metalevel. One of these difficulties can be clearly stated with reference to the notion of "operation," a central notion in behavioral descriptions of the scientific enterprise.



### The Behavioral Approach and Operationism

According to operationism as defined by P. W. Bridgman, a concept is identical with a set of operations, and if a term is used for several operations, it expresses several operations.

An operational account of a scientific term or assertion is also a behavioral account, provided that an operation is a kind of behavior. Operations are performances; they are carried out correctly or incorrectly and with greater or lesser skill. To make operations a subclass of behaviors, we must presumably interpret this term in the direction of "doings."

Both the theory of relativity and quantum physics have contributed to a strengthening of behavioral tendencies in describing science. Physicists have explicitly distinguished between the intuitive pseudomeaning of a term, based on appeals to the imagination, and physical meaning in terms of certain doings such as measurement, which not only in theory, but also in practice, may be carried out. In the case of quantum mechanics, invocation to manipulate certain equations according to a set of rules has often replaced appeals to the imagination. The retreat from *Anschaulichkeit* has been a retreat from "connotative imagery" in the sense of the behaviorists.

If it were required of all physical theory that all terms be expressive of *physical* operations, modern physics would not fulfill the requirement: some terms are mathematical. Operationists characterize mathematical concepts as sign manipulations. If a physical theory need be testable only as a whole, its terms then need not all be expressive of physical operations. The mathematical manipulations, especially in the form of derivation operations, can be shown to furnish contact between the physical concepts of the theory and the operations of testing, such as measurements. As I understand it, a necessary condition for tenable operationist accounts of modern physics is that testability be required of a physical theory (in the form of a hypothetico-deductive system) only as a whole, not separately of every proposition contained in it. If this weaker requirement is made, the operationist can meet the argument of Einstein (1949: 679) against operationism. He complains that operationists overlook the point that a theory, in order to be physical, needs to imply only *some* "empirically testable assertions in general."

The operationist account of physics is clearly different from a logic of physics in that the operations are conceived as observable activities. One is

to *look at* the physicist and see how the different kinds of measurements are carried out. The operations are not conceived as rules governing observable activities. If the ultimate characterizations of an operation were to include a reference to a rule, this would spoil the postulate of observability. Rules are not observable activities.

Study of the operationist influence shows very clearly the danger of practicing scientists' taking metascientific theories seriously as guides for their own activity. Thus, the operationist influence in psychology has in part resulted in severe inhibitions of imagination in the researchers. In "heuristics" any kind of introspection, myth formation, or cognitive imagery may be of help to the theorist. Even in taking up the question of testability, there is room for much of this as long as the Einsteinian requirement, broadly approving as empirically testable any theory that connects at least at one point with nonverbal operations, is satisfied.

Strangely enough, it is among scientists of behavior that the idea of Bridgman's operationism as a kind of generalization from observation of scientists gained most enthusiastic support. Thus, S. S. Stevens (1953: 160), in a paper avidly read by psychologists, wrote that Bridgman in an "empirical spirit observes the behavior of his colleagues and finds that what is considered an *explanation* 'consists in reducing a situation to elements with which we are so familiar that we accept them as a matter of course, so that our curiosity rests.'"

With this faith in a nonpsychologist's capacity of observation as a basis, it may be understood that Stevens felt he was "witnessing the birth of a new discipline: the Science of Science . . . science-makers . . . asking themselves how they make science and turning on that problem the powerful empirical weapon of science itself" (ibid., p. 159).

The foregoing metascientific account of explanation implies not only that curiosity in scientists can be identified as a general attitude, but that a behavioral study can reveal the difference between "curiosity whether  $p$  or not- $p$ " and "curiosity whether  $q$  or not- $q$ ," where  $p$  and  $q$  are sentences in physics. Further, it implies a criterion-measure of "familiarity" and of "reduction of situation." All these concepts would then have to be either defined in terms of scientists' doings or connected into a unified theory from which some empirically testable propositions might be derived (using Einstein's minimum requirement).

It is not here suggested that the idea of an empirical behavioral meta-scientific discipline of explanation is completely utopian, but that its implementation presupposes questions of observation and testing that must be faced squarely before anything is accepted in the form of general results. Even if, through observation of behavior connected with research occurrences of a term *T*, we are led—and exclusively led—to observation of operations, tremendous difficulties confront the behavioral observer in deciding what constitute the specific characteristics of a definite kind, *B*, of behavior unit or doing. The question “Exactly what is he now doing?” is of a difficult type, normally capable of adequate answer only from extensive knowledge of the situation, which again implies knowledge of many happenings before “now.” Operationists presume that they have the capacity of giving adequate (definite) answers, because they presume the existence of an inventory of definite, identifiable operations, each having some unique characteristics: “We must demand that the act of observation equivalent to any concept be a unique set, for otherwise there are possibilities of ambiguity in practical applications which we cannot admit” (Bridgman 1948: 6).

As an example, let us take an answer to “What, exactly, is he *now* doing?” formulated as “He measures the simultaneity or lack of simultaneity of two events far from a stationary clock” (see Einstein 1923: 38). Exactly which traits or fragments of an actual sequence of behavior within a specified region of time and space are relevant and which irrelevant? Observing a scientist at work, ten bystanders who are not instructed about what the scientist is doing, or that he is a scientist, may each note down a hundred observations, each from his own perspective or interest, and none referring to any traits mentioned in the ordinary, conventional description of measurements of time. The definition of the behavior *B* (or, more precisely, of the kind of behavior) will be able to include reference to only a small number of traits. A *principle of elimination of irrelevant traits* is needed, and such a principle cannot be found by an observer who has no education in physics. Bridgman (1949) indirectly testifies to the difficulty of operational analysis when he credits Einstein with seeing the importance of certain details in measuring that “no one had had the imagination to formulate” or “to see that they might be significant.” Normally, students gradually learn to know which traits of behavior fragments are significant, that is, which traits are considered significant among contemporary experimental physi-

cists. The learning, however, does not include learning to give a verbal report stating explicitly which traits are significant. The behavioral metascientist could not get his data regarding the physicist's doings or behavioral units directly from the physicist by asking him, even if, as a metascientist, he were able to do so without giving up his metalevel.

The audible word-event "rascal" varies acoustically in an extremely complicated way. No researcher has been able to characterize acoustically the limits of satisfactory pronunciation of that term; the relevant acoustical studies are guided by phonetic knowledge. Similarly, exploration of forms of research behavior must proceed from an intuitive understanding as a "colleague" of the researcher studied. The absurdity, or at least extreme difficulty, of exploring in the other way (starting from more or less narrow behavioral observations and trying to arrive at the description of research units such as "testing the hypothesis  $H$ ") can be adequately experienced only by trying to abstract from what our colleagues have "whispered" about their research objects and research projects. An experiment of this kind (performed by the author in 1938) consisted in noting down the overt behavior of a psychologist engaged (he said) in studies of anxiety in rats. The rat suddenly found itself on an unexplored open space and began running around. High frequency of defecation and long distances of (bewildered) running were taken as manifestations of anxiety. Adopting the position of (behaving as if) not knowing what the psychologist "had in mind," the metascientist placed himself "accidentally" in such a way that the rat could not be seen. He nevertheless succeeded in obtaining an "observational journal" very nearly isomorphic with that of the psychologist by listing his movements with head, eyes, and hands. This observational journal could be used, however, for an indefinite number of different hypotheses about the psychologist, one being that he was practicing certain rules for coordinating head and eye movements and writing down symbols for those movements in his protocol.

The lesson from this kind of "wildlife study"<sup>4</sup> of researchers is that one must be extremely cautious about claiming that an assertion belongs to metascience if (as is here the case) it is thereby claimed that it belongs to a science *studying* science. Suppose the metascientist, uncritically, had introduced his account by stating that the psychologist  $A$  was "studying anxiety in rats." Suppose further that he was informed by  $A$ , ten years later, that

rats of course do not suffer anxiety, but only fright and that A therefore had not studied anxiety in rats ten years previously. The "metascientist" would then in a collegial way *change* his account, a sure sign of sameness of level.<sup>5</sup>

### Maze Epistemology

The shortcomings of attempts to describe the scientific enterprise from the far outside in terms of research behavior can be shown to derive from one fatal flaw, that of "maze epistemology" (Naess 1936).

A psychologist constructs his mazes and assumes that his own description of them is the correct one. He introduces food or obstacles of various kinds and describes the movements of the rat, freely using references to his maze and the objects in it and postulating a drive and a goal; the rat is said to make correct or wrong turns, to be a fast or slow learner, to make true or false hypotheses, and to make good or bad cognitive maps of the maze.

What happens, though, if one of them tries to carry over the attitude of unquestioned superiority, or this absolute frame of reference of the experimenter, to the metascientist's studies of the scientist? One notices at once that the metascientist does not, and cannot, make the mazes. What is the scientist looking for? Where are the goal, the culs-de-sac, the rewards? What is the problem situation? The metascientist must *ask* the scientist for information about the maze.

A description of science or the scientific enterprise may be said to be subject to the *error of maze epistemology* when the (would-be) metascientist announces his descriptions of the object of scientific research as the psychologist announces his description of his experimental setup—the maze, the food, the obstacles—whereas the descriptions are in fact more or less regurgitated information obtained directly from the scientist.

The error of maze epistemology results in the production of a quasi metascience, an ephemeral vision of science in terms of a part of the contemporary beliefs of scientists. In the interest of a genuine, if only fragmentary, behavioral view of the scientific enterprise, a step-by-step elimination of direct information by suitable methods should be carried out before claims are asserted that one has reached, in part or in approximation, a genuine metalevel.

The error is not only relevant to a description of contemporary science,

but also to historical accounts. It is known in that field as the “error of absolutism” in relation to the scientific beliefs of the historian’s contemporaries. Important chapters of the history of science have recently been rewritten by students of history who do not take the victor’s account (for example, Lavoisier’s) any more seriously than that of the defeated scientist (the phlogistonist’s).

### **Reformulation of the Program of Behavioral Science of Science**

Concluding, we may characterize a practicable and consistent program of molar behavioral science of science as follows: it is a program of description and explanation of the scientific enterprise in terms of the scientist’s molar behavior units in the sense of doings, not motions, in research situations, using, as far as possible, the methodologies of behavioral science. The frame of reference of the descriptions, that is, of the observational journals, will *not* be independent of the conceptualization of a definite tradition or scientific culture. There will be no description of scientific practice in itself (*an sich*) as something invariable. A radical pluralism is thus called for.

The conclusion that participation is a necessary characteristic of the metascientist’s relation to the scientist and his enterprise is of special significance to psychologists, because their own relation to the subject matter of psychology, the human being, is of the same kind. This structure of participation might be further developed as a supplement to the less fundamental discussion on formal aspects of psychological methodology.

### **Behavioral Science, Logic of Science, and Philosophy of Science**

The rise of psychology as an empirical science in the last decades of the nineteenth century inspired philosophers and scientists to advance theories *about* logic within the conceptual framework of a psychology of association, often combined with biological concepts of adjustment and achievement. These quite legitimate inquiries were, however, often marred by excursions into formal logical and methodological domains—an invasion that met little organized resistance before Frege and Husserl because of the lamenta-

bly low level of active logical research in those times. When this situation changed, reaction against “psychologism” set in with such tremendous force that not only were psychological conceptions swept out of logic, but a kind of witch hunt was carried far into the domain of general philosophy of science, a field in which many approaches are needed, and in which that of nonformal, nonnormative study must be fundamental in any delimitation of actual objects or processes studied. Thus, authors using terms that admit of both logical and nonlogical interpretations were criticized as if they *intended* to talk within the domain of logic, even if they did not. It is a stroke of irony that the antiempirical attitude has been strongest among philosophers who, in a broad way, belong to the empirical traditions in philosophy, whereas the philosophers more influenced by Neothomist, Marxist, phenomenological, or existentialist philosophy encourage systematic study of nonformal and nonlogical aspects of science.

The impact of symbolic logic and the renewed interest in logical problems quite generally, together with the perennially strong inclination of philosophers to rely on pure thinking rather than on masses of empirical material, has worked in the direction of identifying philosophy of science with “logic” of science. The term *logic* is used in more or less broad senses, the main emphasis, however, being on the philosophical irrelevance of actual happenings—for example, the way a term happens to be applied. A nonfactual program is explicitly stated by Karl Popper.

The deep effects of trying to take up a consistently logical rather than factual point of view is seen, for example, in Popper’s (1959) account of the empirical basis of science in his book on logic of science. A theory is (by definition) tested by basic statements. Certain stipulated logical or “formal” requirements for testing can be satisfied only by singular existential sentences. Therefore, theories are tested by singular existential sentences. Consequently, theories are, by definition and stipulation, such that we can derive the (admirable) falsifiability doctrine of Popper. What goes on is practically at all times *logic* of science—as we are justified in expecting from the title of the book (which is *The Logic of Scientific Discovery*). The question of observability is treated rather lightly, as are other “material” (Popper’s word) problems of immense nonlogical importance, problems that emerge when we ask, What *kinds* of singular existential sentences are to be classed as basic? Which are the kinds that have, *in fact*, been thus classed until now?

Popper complains—rightly, I think—of traditional confusion of logi-

cal with nonlogical aspects of problems and deplores the ill effects for logic of science. I myself regret the bad effects for the material, or nonlogical, aspects. It is, incidentally, to be expected that explicit, consistent treatment of the nonlogical aspects will make it easier for the logician to eliminate them. The recent history of the logic of science has shown how difficult is this elimination. Today there is a tendency to derive material conclusions from formal investigations just because modern logic has furnished explicit and scientific ways of handling formal problems, whereas material problems are largely dealt with intuitively or implicitly in the absence of any established nonlogical science of science.



## A Plea for Pluralism in Philosophy and Physics

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The impact of science on society and on the individual is today of such an order that any view or vision of the world and humankind labeled unscientific by authoritative scientists or philosophers of science has little chance of being enjoyed, expressed, or made an object of serious logical and empirical research. Among such worldviews, too easily ignored by admirers and philosophers of science, I have particularly in mind those conventionally classed as not empirical or not rational, including a list of philosophies inspired by the Dane Søren Kierkegaard and by the Germans Georg Hegel and Karl Marx, but I also have artistic visions in mind, such as those of the best science fiction.

To people with different visions, one and the same scientific result means something different. They agree completely on an "object level" but may disagree completely on the "metalevels." The differences might be part of the domain for serious metascientific research, but little has been done so far. It is a great task to help verbalize and conceptualize such visions so that others can see human beings, the universe, and world history with the coloring specific to a particular vision. Without deep engagement and serious research, we tend toward eclecticism, traditionalism, incongruence, "grayness," and incompleteness (partiality) in our views.

My plea for a multiplicity of precisely formulated views in the philosophy of science is not an invitation to physicists to engage in vague specula-

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tion or to take seriously what this or that philosopher—for example, Marx, Hegel, or Kierkegaard—has said about science or what he has intended to be answers to scientific problems. It is first a plea for extreme vigilance in distinguishing intersubjective, intercultural results of physical research proper from interpretations of those results within a framework larger than professional, technical, physical science. Second, it is a plea that all different, mutually inconsistent interpretations such as are suggested—but practically never more than suggested—by competent physicists and philosophers of physics be elaborated with painful clearness and in detail. An opposite plea would be for an immediate decision about what is true and what is false when one uses, for example, traditional, vague formulations of so-called operationalism, pragmatism, rationalism, dialectical materialism, idealism, and so on.

The world of personalities, of consistent personal perspective, is today still a colorful world, immensely satisfying to contemplate in its unbelievable variety. It would be disastrous to use the prestige of science to lay down limits and exclude some worldviews not refuted by science, or to call them irrational or intellectually dishonest because they are inconsistent with a definite “correct” philosophy of science proclaimed to be the only valid one. The same holds for metascientific views considered testable but not yet tested by genuine interpersonal and intercultural methods.

After all, the carefully formulated *results* of genuine scientific research are largely neutral toward differences in worldviews as long as these concern fundamentals: there is always room for differences in ultimate rules, valuations, premises, and postulates. As long as we do not have any established criterion for testing different metascientific theories concerning the completeness of a theory (for example, quantum mechanics), why not work out different views of completeness in all preciseness and detail instead of trying to promote just one view that is not even stated clearly?

Let me sum up what I wish to communicate so far: Comparability of worldviews requires precise formulation. Precisely formulated, basic positions are mostly seen to involve different assumptions and postulates. Attempts to point out the “true,” “correct,” or “valid” are futile in such cases. Pseudorefutations promote conformity, leaving us with colorless world pictures devoid of inspiration from visions.

Now let us offer some words about the use of the term *fundamental*, or

*basic*. The degree of fundamentality of a position is relative to the status of the discussion and research at any given moment. Roughly, those propositions, rules, or norms are ultimate that make up the last links in argumentations. If mathematics, as suggested by Lakatos, has no foundations outside itself, certain purely mathematical propositions and rules will be fundamental to any comprehensive position within mathematics. Philosophy of mathematics will then take over, however, asking, *Why* does not mathematics have any foundation outside itself? If the answer is considered a satisfying one, the questioner comes to a rest. There are questions, though, that lead us farther, namely: What is a satisfactory explanation? Which are the criteria of a true or good explanation, and are there ways of testing its truth or goodness? Now we certainly are outside physics, mathematics, or history, and our argumentations lead us to take up positions that I would call ultimate, basic, or fundamental—without in any way implying that there is any eternal or absolute resting point in questioning.

The tolerant and liberal attitude in philosophy of science serves the interest of keeping alive and working out in detail views that as yet cannot be intersubjectively and decisively tested.

Let  $T_1$  and  $T_2$  be different theories of explanation, with both descriptive and prescriptive components. What would constitute tolerance and liberalism in relation to them? If  $P$  is a researcher in the field of metatheory and he has a conceptual frame of reference in which he can state, compare, and test the truth or validity of  $T_1$  and  $T_2$ , considerations of tolerance and liberalism do not enter the picture in any way other than they would if he were dealing with two theories, for example, theories about the relation between molecular weight and the boiling point of alcohols, or any other particular scientific domain.

If  $T_1$  and  $T_2$  are not very superficial, however, they are likely to reach conceptual layers for which we, today, do not have proper intersubjective and intercultural methods of testing. This holds especially for the prescriptive component. The metascientific researcher is apt to succumb to illusions of comparability and close the door to research, insisting that he has performed a test with decisive results in favor of  $T_1$  (or  $T_2$ ).

Among the scientifically incomparable theories of explanation it is enough here to mention those tending toward seeing a *reduction* of the

thing explained (the explanandum) to the explanans, and those tending toward seeing a mere *shorthand description* of observational results.

Let, then,  $T_1$  and  $T_2$  be two different theories of testing, confirming, disconfirming, corroborating, and related activities. As they appear today, they have both descriptive and prescriptive features. There are at present no acknowledged intersubjective and intercultural ways of testing theories of testing. If  $P_1$  believes in  $T_1$ , he will normally use it to test  $T_2$ , in spite of  $T_2$  containing rules or descriptions in conflict with  $T_1$ ; and  $P_2$  will do the same with  $T_1$ . This circularity of procedure is, in some cases, inevitable, and perhaps only extreme rationalists will find the situation repugnant. It is at least clear, though, that metatheories of testing are not today scientifically testable.

In fields in which convictions are strong and research is weak, tolerance means adhering to intellectually decent ways of debate: not to pretend to disprove a theory without having bothered to state it clearly; not to pretend to have refuted a theory or point of view when one has allowed oneself to take for granted certain premises, presuppositions, or postulates that are negated in that theory or point of view.

What is most needed in these fields is an intense fight for explicitness. Only if certain levels of explicitness are reached can a serious search for methods of comparison and testing be instigated. Only then can truth or falsity be discerned—if ever.

Research attitude here involves cooperation between different schools of thought to help make each other's point of view clearer. It is often easier for researcher  $P_1$  adhering to  $T_1$  to explicate a hidden assumption in the rival theory  $T_2$  than it is for  $P_2$ , who himself has worked for years with  $T_2$  and believes in  $T_2$ .

Hertz, Poincaré, Duhem, Planck, Einstein, and Bohr, to mention only a few outstanding names in the realm of philosophy of science, had different overall pictures of science, of its basic conceptual framework and its methodology. The differences are parts of differences in total views, made more or less explicit in their nonscientific writings and sayings.

Any effort to restrict the variety of such total views by pretending that some are "unscientific" is not only unempirical, but goes against the kind of intellectual honesty and open-mindedness that is the greatest gift of research to human beings.

If two positions cannot be compared as to truth, if they cannot be refuted in the sense of Popper, the one does not, in relation to available conceptual frameworks, have a greater validity than the other. Neither can we say that both are lacking in validity, because that would leave us without anything to start out with. I propose putting it as follows:

All noncontradictory, fundamental positions (points of view) have the same non-zero status of validity.

Open-minded, constructive research, having such positions as an object, consists of clarifying and increasing the scope of them rather than trying to reduce their number. Reduction in number does not occur just by pointing out inconsistencies. This is indeed sometimes difficult, because concepts of consistency show variation with variation of position. It is also difficult because pointing out inconsistency requires a semantics, and today we do not have one, single semantic system but various incomplete, competing ones.

The term *validity* needs (even in this preliminary discussion) some elucidation. Truth—as agreement with reality—is here taken to be *a kind of* validity. The kind of validity of a fundamental position is not truth; it belongs to the class of validities such that  $p$  and non- $p$  may both be valid, though  $p$  may not be both valid and not valid.

The logic of this concept of validity is closely related to that of tenability: a view is tenable if not refuted. It neither  $p$  nor non- $p$  is refuted, they are *both* tenable, but, of course, not within one unit of argumentation. The term *refuted* as used here does, of course, need some elucidation, but I am afraid I must stop here.

The use of the term *reality* in philosophy of science (for example, as accepted by Mercier) immediately suggests questions about the criteria of being real and the various positions concerning reality and appearance—going all the way back to the dialogues of Plato. Most of our discussions in philosophy of science certainly need not, even *should* not, go that far. My plea for pluralism is—in respect to the debate on concepts and criteria of reality and appearance—the modest one of proposing that no door leading to the various ultimate positions should be shut by restrictive clauses.

The trend today is unfortunately against pluralism, because it is more and more plain that Eddington, Heisenberg, Rosenfeld, and others have

misled many physicists and made them adopt strange, philosophically interesting but unphysical views. However, a cry of “back to normality” or “back to realism” will not, I feel confident, close the door to new approaches, even if we agree with Landé that to maintain that the electron has *no* position between two measurements is rhetoric rather than a revolution in the theory of knowledge. The antipluralist trend is sound as a reaction against pluralism “by invasion”—by invading “physics itself” and constructing unnecessary and strange philosophical interpretations within this very discipline. (But what is “physics itself”?)

It is part of the historian’s business to try to make us experience from the inside (by *Einfühlung*) extremely different views of man and the universe. How is this possible? It seems to rest upon the assumption that the reader of a historical or philosophical work portraying the differences has a conceptual framework wide enough to cover the most extreme differences. If this were the case, we are in a sense back to monism, since a universal conceptual framework would be the only ultimate or basic one. I shall argue that we need not assume we have such an ultimate *conceptual* framework in order to make pluralism understandable and defensible at a nontechnical level. I need for this argumentation to introduce some semantic concepts.

If somebody utters a sentence  $T_0$  with truth—or validity—claim, the definiteness (not necessarily the “depth”) of cognitive meaning is limited by the set of discriminations he makes. The network of discriminations in the form of distinctions in meaning is not a stable one. Thus, if I say that such and such a ship weighs ten thousand *tons* or that  $\pi$  and  $h$  (Planck) are *constants*, I may have a very crude idea of what I intend to say, but it may be definite enough *for the purpose at hand*. An expert at Lloyd’s Register of Shipping, for example, will, in his professional capacity, have a high or sharp definiteness of intention. It can be conveyed to outsiders only by means of perhaps five hundred words. As regards the term *constant*, one’s network or grading of discriminations may be at least temporarily refined by reading articles such as those of Yourgrau about different usages of the term *constant*, or by trying to compete with Quine, Church, or Mates in introducing the term *constant* in mathematical logic, or by trying to prove some fairly general theorems about constants. Degrees of definiteness of intention may be, and have been, experimentally measured and compared, but this is a complicated affair.

Economy of thought requires that we work with a definiteness of intention commensurate with the requirements of the task, of the problems confronting us at the time. Problems in quantum physics confronting physicists who do not aim at making radical advances, do not require a high definiteness of intention regarding the significance of the symbols in, let us say, the Heisenberg equations. It is, therefore, misleading to say, as many do, that most physicists subscribe to the Copenhagen interpretation. Insofar as the so-called Copenhagen interpretation is formulated as a *specific* interpretation, contrasted with others, only a small fraction of researchers and teachers in physics in Western countries seem to discriminate. A high percentage at least *say* they do not discriminate. Their definiteness of intention is too low to reach relevant distinctions.

So much about the concept of definiteness of intention. The other concept, preciseness, can be introduced as follows: a sentence  $T_1$  is more precise than a sentence  $T_0$  if there is at least one interpretation to which  $T_0$  admits but  $T_1$  does not, and there is no interpretation admitted by  $T_1$  that is not also admitted by  $T_0$ .

If  $T_0$  and  $T_1$  are sentences in the philosophy of science, an interesting criterion of admittance is the actual ways of interpreting  $T_0$  and  $T_1$  within a competency group defined, for example, by having training in both physical and philosophical research.

Thus, when Leon Rosenfeld says to an audience of philosophers of science, "The type of causality of classical physics is determinism," the level of preciseness in communication will be measured roughly by mapping out the diversity of interpretations among the audience at hand. This level will be dependent, but of course not entirely dependent, on the diversity of interpretations of the terms *causality*, *classical physics*, and *determinism*.

That  $T_1$  is more precise than  $T_0$  may also be defined by saying that the range of differences in interpretation of  $T_1$  falls within the range of interpretation of  $T_0$ , or that the range of interpretation of  $T_1$  is a subclass of interpretations of  $T_0$ .

Applying these concepts to the pluralist postulate, I suggest that we place any *talking about* wide systems, the metasytematic utterances, at a  $T_0$  level. It is a relatively neutral level, not because of wideness of scope or vastness or abstractness of conceptions, but because of its low level of discriminations (in relation to systematic conceptualizations). Any suffi-

ciently vigorous effort to exact a delimitation of the pluralism postulate inevitably plunges it into the arms of a definite system or family of systems.

This is easily seen, considering the fact that the above formulation of pluralism includes the words *noncontradictory*, *fundamental*, *position*, and *validity*. Any fairly precise account of what might be intended by these vague and ambiguous words must reveal some worldview idiosyncrasies of the author, or some of his basic methodological positions. This ruins the communicability of the pluralism, making it understandable only within a definite camp. Pluralism is, therefore, in some sense only an ad hoc and rough position, “exposed to wind and weather” and awaiting its destruction—but what is not ad hoc?

Pluralism does not *rule out* that ultimately there must be one truth. Except, however, in matters of little concern, or in practical affairs, many of us are never able to satisfy ourselves for any reasonable length of time with any definite solution to even one major theoretical question. Why not let this color one’s stand toward ultimate positions?

Let me make a digression on the plurality of “embryonic” worldviews among nonphilosophers.

It is almost universally believed among philosophers that nonphilosophers (or more specifically, men of common sense and, of course, youngsters who have not yet heard of philosophy) are naive realists in ontology, that they think truth consists in agreement with reality, and so on. If we take *naive realism*, *ontology*, *truth*, and *agreement with reality* as vague and ambiguous words on the  $T_0$  level, they can be used as starting points of preciseness that lead us ultimately to interesting differences in worldviews in general, and metascientific views in particular.

If empirical evidence is considered of any importance in this field of easy speculation, it supports an opposite conclusion. When they are directly or indirectly stimulated toward formulating philosophical opinions, I have found that fourteen- to eighteen-year-olds express in a crude way, with low definiteness of intention, very different ontologies, epistemologies, and other positions of fundamental import.

In environments in which certain trends of philosophy dominate, gifted young students tend to adopt the current opinions and attitudes, although an impressive teacher may induce some of the students to accept his views even if they are looked down upon within the dominating circle.



This is the exception, however. In any case, the narrowing down of variation is not attributable to any intellectual inferiority of certain basic views, and certainly not to clear-cut falsification. Intellectually, there seems to be a decline in variation owing to absence of systematic development of various intensively incompatible views on the professional level (the “monolithic” tendency). The “amateurs,” kept isolated from authoritarian adults, show a far greater tolerance of ambiguity (as this term is used in psychology), and also the courage to leave debates on fundamentals open. These are, of course, empirical hypotheses, and they have only in part been subjected to research. Results so far obtained point in that direction, however.

Finally, what is the relation of philosophical pluralism to the contemporary discussion of physical reality? Listening to what some physicists authoritatively tell us, pluralists get into trouble: to accept as pure physics what they tell us *must* today be accepted—and not as conceptions derived from some basic conceptions—entails accepting certain fundamental positions as the only possible ones. Thus, Leon Rosenfeld *insists* that the development of physics entails certain views in the logic of concepts. If this logic (which is more akin to ontology in the usual sense) is expanded, it fits Hegelian basic positions, not others. Those of us who are not physicists are accustomed, and inclined, to accept at face value what we are told is pure physics, and we are tempted to look at certain philosophies as falsified by physics. This means giving up pluralism. Listening to other physicists, however, we begin to suspect that physicists have succumbed to a gigantic non sequitur and are offering us positions on false grounds. Hence, we shall look with interest for evidence that different groups of contemporary physicists, all presumably very competent, have incorporated different positions in their so-called physics. This is happily the case. We should, therefore, be in a position to discriminate “pure physics” from “philosophical physics,” looking for pure physics in what is agreed upon by all physicists today. Philosophical physics would be physics explicitly developed within the frame of reference of a fundamental position.

Pure, unphilosophical physics is, of course, strictly speaking, nonexistent; it is a fiction. However, a position akin to Pierre Duhem’s may well be developed—*akin* to Duhem’s, because his doctrine that the succession of good physical theories makes them approximate a natural classification of real objects cannot, if accepted at face value, avoid coloring the physicist’s

criterion of a good theory. This makes him take a kind of realist philosophical position, thus *leaving* his "pure" physics.

The pluralist in me is interested in the further elaboration and clarification of the subjectivist interpretation worked out by Heisenberg. Eddington can be radicalized in the direction of Berkeley's idealism. Of value to pluralism, too, is the idea of Leon Rosenfeld and others that there is something dialectical, in the Hegelian or Marxian sense, in the doctrine of complementarity. In his famous Tokyo lecture (1960) this eminent, vehemently antipluralist physicist, Rosenfeld, made quantum physics part of a far from trivial metaphysics. He there said, among other things, that "Complementarity denotes the logical relation, of quite a new type, between concepts which *are mutually exclusive*, and which therefore cannot be considered at the same time because that would lead to logical mistakes, but which, nevertheless, must both be used in order to give a complete description of the situation." Logicians have not, as far as I know, been inspired to work on this quite new type of logical relation. The main reason, I think, is that the environment of logicians (in the West) is un-Hegelian or even anti-Hegelian: the notions of "concept" and of "logic" implicit in Rosenfeld's views do not belong within the mainstream of formal logic; they do belong to the Hegelian framework of Rosenfeld's philosophical physics.

Neither the Heisenberg nor the Rosenfeld philosophical theory has as yet the preciseness required for univocal location within the network of fundamental positions, but I hope that some philosophically trained Copenhagen people will take up the problem of how to find careful, precise formulations. This will not, however, be of any consequence if Landé is right: the point of departure *inside physics* of the Heisenberg and the Rosenfeld theory does not at all warrant any interpretations different from older particle physics. A quantum physics without particle-wave dualism cuts out any special quantum philosophy of the Heisenberg and Rosenfeld varieties.

What has the development of physics in the last decades to do with philosophical pluralism? The developments have convinced me, first, that fundamental advances in physics are made by physicists for whom physics is not a formidable set of tricks of the trade, but whose thinking proceeds within the framework of ultimate positions, of philosophical interpretations of the terms and formulas used in physics. With time, the philosophical theory of these physicists is "rubbed off," because physical practice does

not require preciseness in fundamentals. Second, I am convinced that the positions among creative physicists are and will continue to be mutually inconsistent, that efforts to stifle the sources of diverse philosophical inspiration constitute not only a methodological but a general cultural evil. The fight between supporters of so-called idealist and realist conceptions is barren except for increasing the explicitness, comprehensiveness, and consistency of each kind of conception.

The pluralist Bernard d'Espagnat says in his carefully written *Conceptions de la physique contemporaine* (1965: 11) that there are as many original interpretations of physics as there are "possible conceptions of the relation between man and the world." This is a happy formulation, I think, if we are permitted to add "basic" to his term "relation between man and the world," and "at least" before "as many." In the matter of particulars, or nonbasic problems, most views (even among the consistent ones) are eliminated by research, or will soon be eliminated as improbable, badly corroborated, and so on. Pluralism based on keeping alive refuted hypotheses is, of course, uninteresting to us as researchers.

Let me append to this pro-pluralist sermon a remark that might (mistakenly) be taken as antipluralist: Vigier embraced the idea of a theory of hidden variables before he could describe a single possibility of experimental confirmation. He has been unjustifiably criticized for this among some physicists, but, on behalf of all pluralist philosophers of the world, I would thank him; we have, as philosophers, little or no chance at all of creating alternatives in physics and are, thus, rather helpless when physicists point to certain interpretations as inevitable and definitive. Courageous physicists who suggest new paths even before it is seen where (or what) they might lead to experimentally are, therefore, especially welcomed. Vigier was inspired, however, by a form of dialectical materialism, in a way that would scarcely be possible if he were a pluralist in philosophy. This underlines the curious fact that it is difficult simultaneously to promote unconditionally both pluralism and swift, radical advancement in science.<sup>1</sup>

## Discussion

*Wolfgang Yourgrau:* Naess seems to plead for some sort of tremendous tolerance and liberalism, as far as philosophical schools are concerned. He is say-

ing, it seems to me, that all philosophical schools are more or less equivalent. According to my opinion, they can't all be valid. Having the sheep with the lions, the existentialists and the analytical philosophers, the rationalists and the realists, the pragmatists and the metaphysicians, all in one happy paradise—I don't believe in the probability of such a paradise.

In fact, it can be proved that some views held by a given philosophical school are in no way consistent with other views. So why not draw the most plausible conclusions? If they are wrong, we make corrections by trial and error. Philosophy, physics, mathematics—they all have learned from errors. You can't afford the luxury of having no viewpoint at all and simply say, "Well, I listen to you and you listen to me." Philosophically I find such an attitude slightly . . . repulsive.

In mathematics we have three famous schools. I grant that this *is* pluralism in a way, but even though one may contend that the intuitionists or the logicians or the formalists have each a very good case, one still has to say, "I am either a formalist or an intuitionist or a logicist." I don't think one can be creative in three *generically* different scores like a gifted musician.

When it comes to logic, although I have heard about many "logics," I think it has been very beautifully shown by Quine and later by other thinkers that most findings of modal logic can be reduced to nonmodal logic. These are interesting adventures, but on the whole I think we have a definitely unique viewpoint even among logicians, although one may pay tribute, or at least lip service, to other logicians with whom one doesn't agree.

I would like to stress that (although I agree the limits of definiteness are not very sharp) our aim must be, as scholars, to sharpen our concepts *even at the risk of antagonizing our colleagues*. There are situations in which one just cannot build bridges even within his own field. Bridges to another discipline are one thing; illusory bridges among your own fraternity are an entirely different thing.

Naess's viewpoint on contemporary physics is interesting, but unfortunately I can't agree with it. For me, any sincere physicist with academic integrity tries to tell us something about the world, sometimes in very involved conceptual language, sometimes using a mathematical apparatus that is intricate and abstract. But still, he is for me only a physicist and not a mathematician if he really wants to know something about reality. And

there I think pluralism is an approach I would not recommend to my students as *the* ideal recipe.

Finally, Vigier is responsible, together with Bohm et al., for a very interesting new model of the elementary particle and an aesthetically fascinating theory. Regrettably, as long as I haven't been shown for his precious model and theory even an iota of experimental evidence, I have to consider the adherents to those "original" ideas as quixotic. But let me confess that the very moment when I see an ever so slight experiential support for Vigier's contentions (and those of his collaborators), I shall become converted and eschew all my previous commitments in that particular domain.

*Arne Naess:* Let me restate the definition of the term *pluralism* as I used it. All explicit noncontradictory, fundamental positions have the same non-zero argumentational status of validity. Explicitness and fundamentality require preciseness. This rules out the standard statements of philosophical schools, as far as I can see. Behind the vague slogans of schools, however, are differences of basic views. These should be explicated.

At the lowest level of preciseness, the  $T_0$  level, contradictions do not appear, nor are interesting differences in premises, postulates, and rules of inference statable. To be able correctly to say to somebody, "You stated a contradiction," is a compliment because it means he operates above a certain minimum level of preciseness, and this is what I, of course, will require of an explicit, fundamental position. If we cannot locate where you stand in the landscape, how can we argue with you?

I am not excessively liberal and tolerant toward so-called schools of philosophy as we find them "defined" in dictionaries and bad histories of philosophy. What is asked for is not "tremendous tolerance and liberalism," but rather abstinence from totalitarian, sectarian, and conformist attitudes, and willingness to take part in teamwork involving serious research across ideological boundaries.

It would, of course, be queer to proclaim that "all philosophical schools are more or less equivalent" and their premises, assumptions, presuppositions, and postulates all "valid." Most school formulations are not precise enough even to make exact comparisons or to search for inconsistencies. Mists do not collide—and note: physicists are responsible for a lot of this mist!

Researchers do not like to be labeled by names of so-called schools, and this also holds for philosophers. A formulation said to express an assertion or rule characteristic of pragmatism *as a school* is mostly a formulation nobody would accept or take seriously, because of vagueness and ambiguity. The same is true for formulations pretending somehow to catch the essence of, for example, "existentialism," "Hegelianism," "ordinary-language philosophy," or "rationalism." When Yourgrau states that "all philosophical schools" cannot be "valid," he may have in mind formulations in mind, and I agree. *Validity* and *invalidity* are terms we both would reserve for formulations of statements or rules that show a minimum level of interpersonal preciseness. I have only such formulations in mind when advocating pluralism.

If, on the other hand, we take carefully selected formulations from, for example, the so-called pragmatist C. I. Lewis or Quine or from the anti-pragmatist Gottlob Frege, or from a Hegelian like Grenness, some may have the character of fundamentality that makes them "equivalid," "acceptable one at a time." That is, there is no sufficiently wide conceptual framework, including semantics and methodology, within which they can be scientifically compared and tested. Maybe future generations will see such frameworks; today, it seems best to travel on different roads. To invoke trial and error as a test method here would be naive.

The current philosophy of physics includes a great number of metascientific sentences on "completeness of a theory," "explanation," "observation," "levels of physical reality," "interaction of subject and object," "path of a particle." What is needed more than anything else is more precise and elaborate formulation of the positions suggested but not clarified by those sentences. Cooperation among people trained in philosophy and physics is needed to make use of the suggestions of Heisenberg, Rosenfeld, Bohr, Fock, Bohm, Vigier, Landé, Weiszäcker, de Broglie, and others. The school terms *idealism*, *pragmatism*, *dialectical materialism*, and so on, are apt to thicken rather than dispel the haze. Moreover, the stress on one position being true and the other false is premature; it leads away from constructive meta-research and the difficult work of finding hidden premises and of formulating, as exactly as possible, differences in postulates, fundamental assumptions, and styles of research. Contrasting positions must be sharpened, kept alive until, if possible, refuted in an intellectually honest way.

The emphasis on multiplicity of mutually inconsistent views is *not* eclecticism. The eclectic is rather a monist than a pluralist, rather an irrationalist in the “Popperian” sense<sup>2</sup> than a rationalist.

*Jean-Pierre Vigiér:* I wholeheartedly agree with Yourgrau. I think the real problems now, which are philosophical problems, are being fought on quite a different battlefield: the battlefield of science. The great periods of philosophy were precisely the periods in which the problems were tied to an explosion of scientific knowledge such as in Greece, the Renaissance, etc. Now in a sense we live in a similar but even more exciting period. Progress in the last forty years has been more important than in the last two thousand years; nine out of ten scientists who have ever lived are alive at present.

If one reflects on the nature of the big problems to which our knowledge has been brought to bear in the last ten years, we see we are on the way to answering problems that have been discussed on a purely rhetorical level for the last two thousand years between, for instance, the materialists and the idealists.

Consider, for example, the problem of whether life can be explained in terms of a possible behavior of matter. The answer to that problem is being given now, not by philosophers but by the scientists themselves. It rests on the discovery of DNA and the introduction of the feedback ideas of Wiener and many other scientists into the theory of life. This is the beginning of a real definition of the problem of life.

There is the same thing in the problems of soul and consciousness. Thinking machines are beginning to clarify certain elements of what “thought” is. This means that the corresponding problems are moved from the level of words to the level of the laboratory. I think the whole issue, of course, is that of synthesis within scientific knowledge.

I am against eclecticism. All ideas should be allowed to be expressed, but in science they are fought and settled on a very special level, that of scientific practice, by the results of experiments. I don’t think the discussion with the Copenhagen school is a merely rhetorical one. I am certain it is an issue that is going to be settled on the scientific level. A lot of so-called philosophy appears to me to be just sophistry. People like Teilhard de Chardin pretend to answer questions that they have no right to answer because all this talk about spheres is just words. The people who are doing the

actual work are the biologists, for they are really approaching, on a precise, controllable level, the fundamental problems raised by our knowledge. Hence, questions concerning physics or the laws of physics should be settled by the physicists themselves on the level of experiment. I want to chase the ideologists away from knowledge because the truly fundamental revolution of our time is precisely the construction of a synthesis out of scientific knowledge.

Now, this does not mean that I think there is a unique philosophy that is going to issue forth from the discoveries of scientific knowledge. I hold that we will observe in the following years new scientific revolutions—this is not a Teilhard de Chardin—like prediction—and a new qualitative synthesis will arise because science works by successive revolutions. There are long periods of accumulation of knowledge and then periods of breakthrough that change the whole traditional point of view.

If one reflects on the nature of modern science, one sees that all the barriers between the different branches of knowledge are falling down. Consider, for example, the impact of the work of a man like Norbert Wiener. I think that Wiener's contribution will appear, in time, as important perhaps as that of Descartes. The ideas of cybernetics, the notion of feedback, have transformed completely our ideas about the behavior of nature and about causality. They have opened the way to a new scientific explanation of what is life and what is soul.

What is really happening is the explosion of science. Now, instead of having long periods in which different branches of knowledge were independently deadlocked, any revolution in one branch changes the outlook in all other branches.

This is a fantastic change and explosion, and of course it is imperative to bring scientists and philosophers together. But, as I say, I have a deep conviction that the most advanced thought, the solution of the most advanced problems, originates in the laboratories themselves.

*H. J. Treder:* I think one of the best remarks Einstein has made about philosophical problems is that all physicists are philosophical opportunists. They do not have a philosophical system that will work. A physicist might be in one respect a realist and in another a positivist. The conceptions of the philosophers are only working instruments for the physicists. Of course,



some physicists may or may not lean toward some special philosophical systems. A relevant criterion of the physical meaning of the works of these physicists is the invariance of their results according to different philosophical points of view.

*Naess:* Since I was trained in psychology in general and social psychology in particular, the interview technique is natural to me; so I asked physicists doing research in quantum physics whether they apply such a method to the Copenhagen or any other interpretation. The answers mostly amounted to a denial that they have had to take a stand. Their work is neutral toward crucial differences of interpretation, and they often succeed, as they admit, by "mere" tricks of the trade. Further, if their work happens to put them in close contact with burning questions of metascience and of fundamental views in general, they often are, or act as, "opportunists," as pointed out by Treder. In other, perhaps rarer, cases, physicists do not act in this way, as exemplified by Niels Bohr and Einstein, for whom there was no clear distinction between a scientifically "pure" physics and a physics interpreted within a broader framework of metascientific and fundamental issues. In the early 1920s, so-called pragmatist and positivist attitudes were perhaps the *most* opportune ideas for "getting quantum physics moving." Einstein could not leave his fundamental positions, however, and Heisenberg did one of the crucial jobs. ("What is a physical theory?" and "What is physical reality?" were burning questions affecting their conceptions *in* as well as *about* physics.) In still other cases, metascientific issues *dominate* the physicist in his work, as was the case with Pierre Duhem. The result was sometimes a happy one, sometimes a deplorable one, from the point of view of heuristics.

All this I try to elucidate by using my concept of "depth of intention." The varieties of fundamental positions arise from a great depth of intention in any extraordinary situation. For most researchers in most of their work, great depth and the corresponding fine-grained set of discriminations (to use a phrase from psychophysics) are a luxury.

Recent significant advances in molecular biology have brought to the fore just those problems that cannot be solved in the laboratory alone, but that require going back to premises, postulates, and basic human policies. The "social" sciences in their turn require us to pose as precisely as possible

the values we shall defend. They do not operate automatically but require "input." When ordinary people ask scientists to state the implications of the discovery of DNA, to show what questions of eugenics, ethics, politics are implied, an answer must be stated in ordinary language, not in that of the biological laboratory. The scientist must be conscious of his own position in the vast metascientific field of rational debate.

*Hermann Bondi:* On the historical side, I think Naess's remark about great advances in physics coming from physicists with a philosophical bent of mind is true in some cases and untrue in others. The greatest experimental physicist of our century, Rutherford, was perhaps the most nonphilosophical thinker who ever lived. Dirac made many great contributions, but I think what most would regard as his greatest, viz., the equations of relativistic quantum mechanics, were essentially a trick of the trade, a usable one, but no more than that. So I cannot entirely agree there.

On the other hand, when Naess pleads for pluralism, then it seems to me very clear that pluralism is of the very essence of science. To me, it is the greatest glory of science that people of different religions and different ideologies can work together effectively. It shows that in science there are certain methods on which we can agree, in which experiment forces agreement, even if there are others on which we do not agree.

Next, there is the point at which I am perhaps a little more "Vigierist" than Vigier himself. There is science, yes, and in this we have theories that are testable in the "Popperian" sense. But we do not know (until we have explored alternatives) which part of the framework is essential and which is not. For eighty years after Maxwell proposed his theory, the field concept was thought to be a vital part of it, and the tests of electromagnetic theories were thought to show that the field concept was right. Then Wheeler and Feynman demonstrated that we could arrive at Maxwell's equations from an "action at a distance" concept, leading to the same experimental tests, and so we now know that the field concept is only *one* alternative basis. It has made the field part of the Maxwell theory move out of science just because it is no longer testable. But removing it from science strengthens the demarcation and is thus a true scientific contribution. If the Bohm-Vigier theory does not lead to any possible experimental discrimination, it will yet show that different approaches are possible. Thereby, it will have removed from science part of the usual foundations of

quantum theory as not being testable. Therefore, it will have made a valuable contribution.

My last point will merely be to support the plea for pedestrian work. As may be known, I have occasionally done some speculative work. I recall giving a lecture to students on some particularly speculative matters, and they became most interested and fascinated. And so I closed with the advice "I am delighted if I have interested you in this, but do not do any work in such speculative fields until you have done some good pedestrian work so people know you are a real scientist and not just a crank."

*Naess*: As Bondi indicated, sometimes philosophy of science is more of a burden than an asset for the creative scientist. I note not with reluctance but with delight that in science sometimes very unphilosophical minds do excellent things. In the case of physics, I venture to suggest that in certain years, from 1920 on, those who just said "Let us have more fun, doing some really good mathematical tricks," could do it more easily because they did *not* have the worldview of Einstein. Even if they had a background of positivism and pragmatism, I would not be right in saying that they were mainly philosophically inspired, but "unphilosophicalness" may be of a philosophical kind, an *implicit* pragmatism, or practicalism.

*Richard Popkin*: I think the history of ideas thrives on the sort of pluralism Naess is advocating. If there hadn't been this sort of pluralism, things would be very dull because we would be just studying the same idea over and over again. Fortunately, there has been this pluralism, but I find in studying it there is always a tension between the sort of tolerant pluralism that Naess is advocating and the dogmatic pluralism that has gone on all the time. The contribution of the many views that have existed in the past seems to depend not on the fact that they tolerate each other but on the fact that they don't. But the dogmatism, the fact that people believe these things, really take them so seriously, claim they have the unique way to truth, has led them to produce the novel ideas that they have. If they were as tolerant as Naess would like them to be, I wonder whether they would really make this sort of contribution.

Pascal observed that Pyrrhonian scepticism is true as long as there are dogmatists, but as soon as there are no longer any dogmatists, this scepticism will become false.

*Herman Tønnessen:* Vigier remarks that the solutions of the most advanced problems are given by the scientists themselves, achieved in the laboratories, and he mentions one problem to which, he claims, the solution is now coming from laboratories, viz., the problem "What is life?"

First, I want to say that this model is not adequate. It gives the impression that one is either here or there, whereas the point is that in most cases we are focused somewhere in the middle, and that we shift, oscillating from one situation to another. The model overstates our definiteness of intention. This is misleading, as the whole thing is more like one enormous porridge of meanings and intentions.

Let's take the problem of immortality, for example. If you say man is immortal, you can work out a formula. You can write "This is the maximum of tenability and this is the consolation value of your theory." But in my opinion, it goes something like this. The more tenability, the less consolation value. But what do people do with "immortality"? One may, on the one hand, give it a definition that it is very likely to be *true*. Then, on the other hand, one could at the same time hold an idea of immortality that would be much different, but that has great *consolation value*. Thus, it becomes a porridge of intentions and meanings; and one oscillates imperceptibly between both extremes, which gives one the very comfortable feeling that both ideas are true: we are immortal, and we have the consolation. We are utilizing the vagueness and ambiguity of "immortality" to comfort ourselves.

Well, I would maintain that it is the same thing Vigier does. He is assuming unlimited definiteness of intention. Possibly his intention is, at one point, *A*, but he is tacitly assuming that it is at another point, say, *B*. Therefore, when he is talking about laboratory experiments as being relevant, they are only relevant to someone who has the level of intention *A*; but this is totally irrelevant for anyone who has the level or depth of intention *B*. And of course, somewhere between *A* and *B* there would be mixed feelings, and these are the mixed feelings I wanted to express.

*Vigier:* The question of life is a precise question that can be split into a series of problems and has indeed been put by biologists in quite a precise set of single problems.

Now we understand how the cell works, because we know that the

DNA is a code and the code gives instructions for all cellular chemical reactions. The living cell can be defined as a memory that reproduces itself.

This is the way in which a problem passes from the level of vague words into a precise formulation, and that is the way knowledge moves forward. Look at the way, for example, in which knowledge moved during the Renaissance, the vague way in which questions in astronomy and in physics were expressed before Galileo and other thinkers, and the precise way in which they left these problems.

*Naess:* If all fundamental views or theories about physical reality were to be considered in a critical atmosphere, it could only be done in an environment of tolerant pluralism. As regards the chances of professional maximal (or optimal) achievement in an atmosphere of tolerant pluralism, I share Popkin's pessimism. Dogmatism, narrow-mindedness, cocksureness, and fanaticism have sometimes been conducive to great achievements because they have made a researcher work out the consequences of a bright idea with greater energy. Intolerance does not protect just weaklings. Generosity and wide perspective is sometimes bad heuristic but always good cultural philosophy.

Is our great problem today lack of perfect achievements? Is it not rather the drying up of sources of a colorful multiplicity of views and attitudes owing to the worldwide integration of technical, "scientific" culture?

Vigier says that the problem of life is a series of precise problems. I would say, though, that there is no precise series. A hundred and fifty years ago, one of the central questions concerning life was whether organic matter could be explored and explained successfully by chemists and physicists. Tremendous scientific victories in organic chemistry, since Wöhler in 1829 succeeded in obtaining urea from ammonium cyanate, have decided that issue. It is not a living issue any more. There has been a shift of problems—many times.

Only specialists on Aristotle can make us aware of his frame of reference in his "physics." As long as we did not go deep enough, we interpreted it in terms of Galileo and the decadent "Aristotelian" physics of his time. Today—to our astonishment—we see a "physics" of Aristotle that is capable of a rejuvenescence, not as a physics in the contemporary sense, but as a view of physical reality and of the logic of "things." The discovery is analo-

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gous to that of the independence of Stoic logic from the conceptual frame of—the same incredible genius—Aristotle. Both discoveries are feats of tolerance of diversity and careful inspection of fundamental assumptions, premises, and postulates.

*Frederic Nef:* I would only note that to distinguish is not necessarily to tear apart. To distinguish can be a means of bringing about agreement on a higher level and concerning matters that are more vital to man than those about which we disagree.

## The Case Against Science

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The central topic of this paper is thirteen complaints or grievances formed in countercultural<sup>1</sup> environments and directed against science. Most of them are formulated in a way that suggests a general disapproval of the scientific enterprise. My main conclusion will be that they are on the whole well-founded insofar as they oppose dominant trends of science in the industrial states (including certain eastern European ones), but on less firm ground when they take issue with science in general.

There are two subordinate topics. The first is the antiscientific, antirationalist countercultural reaction to establishment science and to the way science is taught at the universities. This reaction sometimes takes forms verging on the comical, yet it is both healthy and important in its main concern, which is the narrowly intellectual and technical rationality of industrialized science. The second topic is the role of science in a society that exists in ecological equilibrium.

### Eulogy: The Cheerful Face of Science

The term *science* evokes significantly varied reflections and emotions. I belong to the thousands of researchers who experience intensively positive associations. I am reminded of a search for Miocene carnivores in a California desert. We dug out bones of small horses and camels, having located a water hole near which they, millions of years ago, presumably gathered and

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many of them died following an attack by carnivores. Where were the attackers, though? It was not easy to figure out where to dig for their bones.

This stay in the California desert, where we studied conditions of mammalian life twelve to fifteen million years ago, was entirely meaningful. Neither the midday heat nor the scorpions could lessen our joy. The tools were cheap, and agricultural districts in the vicinity enabled us to live in ecological balance. Thus was science established as a main ingredient in an entirely satisfactory way of life.

The extensive generalizations of textbooks concerning Miocene horses do not, of course, reveal any of the joyful aspects of research. I quote: "The Miocene saw the horse family flourish to a greater extent than did any other period. It began with one lone genus, *Miohippus*, which soon branched into *Kalobatippus*, *Hypohippus*, *Anchitherium*, and *Parahippus*. In its turn *Parahippus* gave rise to *Meryhippus*, which branched into *Protohippus*, *Hipparion*, and *Pliohippus*" (Loomis 1926: 134–35).

Unhappily, science is often more or less identified with texts written in strange jargon. The preparation of such texts is an important part of the scientific enterprise, but to make people who yearn for science as a way of life memorize them may soon be regarded as one of the barbarisms of our century.

In what follows I shall accuse dominant trends of modern industrialized science of a number of crimes. However, my charges do not touch upon science as it can and should be.

My enthusiasm for science in general is gone. Like thousands of others, I have come to see the dark side of the scientific enterprise. My enthusiasm for research as a way of life is still there, but that kind of life has become a rarity in industrial societies and is not characteristic of what science as a gigantic enterprise does to society and to that major portion of youth who never experience research as a main ingredient in a meaningful way of life.<sup>2</sup>

### Dyslogy: The Sad Face of Science

A short semantical note is now called for. The term *science* is used in many senses. One authoritative use defines "a science" as "a coherent system of more or less general propositions systematically supported by evidence obtained through the use of particular methods that have an interpersonal



and intercultural status.” The propositions of such a system are said to express scientific knowledge and are thought of as having a high degree of certainty, though they are not necessarily either plainly or eternally true. Scientific propositions are rather thought of as eminently testable and falsifiable. The body of scientific knowledge is considered to be accumulative.

Studies of science in this comparatively narrow sense are now often said to concern the internal relations of science, but “science” is also used in the very different sense of the total scientific enterprise. As such, it has been undertaken on a vast scale only recently. In industrial societies science has become gigantic in scope—bureaucratic, impersonal, and politically powerful.

In what follows we will be exclusively concerned with science in the latter sense. Studies of science understood as the scientific enterprise are said to be studies of the external relations of science. Obviously, however, the internal relations presuppose the external ones, and vice versa.

We shall see how criticism of the external relations also affects the internal relations. Thus, as scientists we cannot remain aloof from the vigorous protest movement at the universities and in society in general.

Science has a gay and angelic as well as a sad or diabolic profile. The latter shows itself when we consider certain well-founded grievances against science.

## Grievances Against Science

### *Science and the Powers That Be*

Since research is part of the quest for truth, the scientific community has been widely expected to take a vigorous stand against people in power who manifestly propagate untruth. Twentieth-century opposition to pseudoscience, for example, was partly led by scientists, among them inmates of concentration camps. Wherever people in power have directly interfered in matters of scientific concern, some scientists have protested and others have at least supported the protesters.

Yet in cases of false accusation, distortion of contemporary history, and false propaganda in general, it is said that scientists by and large keep away from the conflict. Authors, artists, and other groups are said to be more alert, whereas scientists try not to antagonize sources of funds, equipment,

or campus facilities. The scientific community did, for example, acquiesce in Hitler's transformation of the universities, and in modern dictatorships scientists are said to keep quiet provided they are handsomely rewarded. The sad truth is that a scientific career is not conducive to civil courage.

### *Science Serves the State*

Especially in the United States there is a widespread reaction to defense research being done at universities with the tacit approval of the vast majority of scientists. The Vietnam War showed first-rate physicists and biologists at work inventing devilish new weapons of war. Moreover, this was condoned by the research community at large.

In general, it seems that any kind of regime and any kind of project, including scientific methods of torture, are more or less condoned by the majority of scientists in the sense that they do not join fights against these things. They organize neatly, at least in some European countries, as pressure groups for higher pay and so on. They belong to unions. Their lawyers fight hard to safeguard their clients' material and other privileges.

There is mounting pressure in the West to make science the servant of centralized governments. The still fairly high degree of autonomy in selecting research topics is being challenged. "Science . . . can no longer hope to exist . . . , through some mystique, without constraints or scrutiny, in terms of national goals, and isolated from the competition for allocation of resources which are finite" (Ivar Bennett, deputy director of the Office of Science and Technology, 1966, quoted in Greenberg 1967).

The cost of modern science and of a university education is tremendous, and it is only fair that government officials and the public should try to impose restraints. It would, however, be much better for society and for the individual researcher if the scientific community showed wisdom and self-restraint and turned to a philosophically and ecologically justifiable way of life.

### *Elitism and Privileges*

There is a pyramid of prestige, pay, and privileges in the universities and research institutions. Careerism is rampant and often there is a pervasive at-

mosphere of competition. Science has created big and ugly pyramids of power. In Eastern Europe scientists who are willing to serve the government and to keep quiet constitute a new "aristocracy."

The industrial states encourage an all-against-all race for well-paid positions with high status. A scientific career offers just this. The state tries to discover talent by testing and screening. Successful candidates are offered pay and privileges that set them apart from the majority of people.

Marx said about one hundred years ago that the Anglican church would rather forgive an attack on thirty-nine of its articles of faith than on one thirty-ninth of its money income (*Capital*, foreword). Science at that time could perhaps not be compared to a church, but its material wealth and the affluence of its "bishops" may cause it to resist social reforms in a manner that resembles that of the European churches in Marx's time.

### *The Pilate Reaction to Criticism*

I shall now consider one of the most serious charges leveled against science: its moral indifference. It is said that the scientist cannot be blamed for the extensive misuse of scientific results. "[D]ecisions about the use or abuse of scientific discoveries are made by politicians, ultimately by the elected or appointed representatives of society; they are not made by scientists" (H. J. Eysenck 1954). It is also said that the scientist has neither the means to predict how his results will be used nor the capacity eventually to find out how they have been used. What sudden modesty!

In many cases scientists do have the capacity—but not the will—to investigate the uses made of their discoveries. In other cases, especially in purely theoretical fields, there is no way of ascertaining what will be the consequences in the long or even the short run.

A few scientists have discontinued theoretical research because of suspected misuse of their findings. An example is James Shapiro, the Harvard biologist, who said some years ago: "In and of itself our work is morally neutral. . . . But we are working in the United States in the year 1969. . . . These people [in power] have consistently exploited science for harmful purposes."

In many countries there are organizations that help scientists who are "conscientious objectors," that is, those who leave their jobs rather than

work on dubious research projects. In the United States one of these is the Society for Responsibility in Science, which has branches in Europe.

### *Support of Technocracy*

The close relationship between technological and scientific development in the West finds expression in technological thinking on the part of scientists. There is, for example, a widespread belief in technical solutions for social problems. Although the slogan "social engineering," which was common among social scientists in the 1930s, is no longer in use, the idea lives on.

In many countries—of which Norway is one—governments increasingly take action on the basis of recommendations from technical agencies. One of these agencies calculates what is misleadingly called the increasing need for energy. The term *need* sounds so human, but the scientific calculation and extrapolation do not reflect human needs; they measure the effective demand on the world market, effective demand being defined as one that is backed by money. The Norwegian government acts upon the scientific conclusion concerning the tremendous increase in our need for energy in 1980, 1990, the year 2000, and so on, and decides to engage in vast oil adventures along our coast and to destroy rivers and landscapes in order to produce electricity. Politicians lack the means to work out alternative policies, since behind the recommendations of technologists may be months or years of scientific work, costing millions.

The countercultures vigorously protest against the unholy alliance of scientific personnel and institutions of modern technoculture. Their advice is to "get out," and indeed many gifted young men have given up their technical or scientific careers.

Where a technological outlook prevails in the social sciences, we find rationalizations of societal arrangements reminiscent of Huxley's *Brave New World*. In the 1930s and 1940s prominent social scientists predicted that politics would be replaced by science-based decision making, with a technocracy functioning as executive branch.

The utopia of scientific politics is largely dead, but opinions derived from it are very much alive. According to one contemporary believer in scientific politics, Daniel Moynihan, the social sciences "will give govern-

ment an enlarged capacity to comprehend, predict and direct social events" (1975). Considering the general quality of governments, such increased centralization is highly undesirable.

What is desirable is that people, not governments, obtain an enlarged capacity to comprehend, predict, and direct social events. That is, it is desirable that people direct themselves rather than be directed.

As the term suggests, a technocracy is a society that stresses the development of means for their own sake, while neglecting goals. Means, such as transportation, energy, organization, engineering, administration, and planning, are developed uncritically. The cultivation of values is not taken seriously. Nor are reflection and an autonomous lifestyle encouraged.

Again, our ultimate conclusion cannot go against science as such, because our criticism concerns only a dominant trend in science. Increasingly, the opposition to technocracy is strengthened by research started or instigated by individuals belonging to one of the countercultures.

Neither natural science nor the social sciences are inherently conducive to excessive technical development. What is known as scientific neutrality is not itself a scientific thesis but part of an antiphilosophical philosophy. The excesses stem from cultural and economic trends that can be explained only on a broad historical basis. Without science, the modern technocracies and their devastation of nature could not have developed, but it does not follow that a general downscaling of the scientific enterprise will result in diminished technical dominance.

Some parts of the scientific enterprise clearly need to be expanded. Think, for example, of the new trend in economics that stresses social cost rather than monetary cost. There are also studies of economic systems based on non-Western value scales. Thus, a Buddhist economics has been developed in Burma.<sup>3</sup>

### *Manipulation*

In Western societies, industry makes use of vast scientific resources in order to sell its products.

The use of psychology and other sciences for the manipulation of tastes and ways of life has increasingly come under fire. Critics have noted that even the definition of certain sciences suggests their manipulation and

degradation of the individual and society. The theoretical goal of psychology, says H. J. Eysenck, "is the prediction and control of behavior" (1954). Such control may be invisible; that is, the populace may be scientifically controlled in its behavior without having any clear idea of what is happening. Hannah Arendt concludes: "The trouble with modern theories of behaviorism . . . is that they actually are the best conceptualization of certain obvious trends in modern society" (1973).

This indictment concerns certain trends, not psychology as such. The widely used book *On Becoming a Person*, by C. R. Rogers and hundreds of other books show how important trends in the behavioral sciences join hands with the counterculture to reduce manipulation.

Many people generalize their criticism of manipulatory scientific projects into an indictment of the role of science in industrial society. Yet certain behavioral studies today aim at reducing interference and manipulation. I have in mind the vastly expanding field of the ecological study of animal (including human) behavior. The general conclusion of these studies amounts to a warning that we know too little about the long-range effects of the interference with and manipulation of nature to be justified in continuing them.

### *Lack of Respect for Personal Dignity*

Certain trends in modern behavioristic psychology have been taken as symptoms of a lack of respect for personal dignity. The most notable representative of such trends is B. F. Skinner, who openly favors a technology of behavior. One can, according to this prophet, change human behavior without too much understanding of how it has come to be as it is, or how people experience their own selves, freedom, decisions, and goals. "[W]e do not need to discover what . . . plan, purposes, intentions really are . . ." (Skinner 1971: 15).

Already, very tough kinds of so-called behavioral therapy exist. It was discovered in Norway that behavioral scientists systematically use isolation to change the behavior of a child. In the subsequent public uproar, science and expertise were often seen as the cruel, inhuman agent.

Drug addicts have been treated with a drug that produces paralysis and agonizing suffocation. The doctor whispers to the immobilized patient

frightful accounts of the dangers of narcotics. In another kind of experiment, the big spider known as a tarantula proved to be a most effective horror in aversion "therapy."

The ecological movement fights for the rights of animals. A vast number of research projects use animals in painful experiments. One kind of justification will no longer hold: that of merely advancing human knowledge. Nor is it enough to point vaguely to a possible use in medicine and related sciences.

The policy of universities should be to minimize cruelty through self-control, and not wait to change things until outside pressures build up.

### *Pretense of Political Neutrality*

If what is said in previous sections is true, then the scientific enterprise is not a neutral power in relation to contemporary political and social movements. Not telling the truth to the powers that be has the effect of backing the regime in power, whatever its merits or faults. The acceptance of projects such as Camelot (See I. L. Horowitz 1967)<sup>4</sup> and many others in the social sciences reveals an interest in the perpetuation of existing power structures. The acceptance of special privileges makes it tempting to go along with the regime that defends those privileges. The support of technocracy is not politically neutral but serves industrial interests and producer interests in general, rather than low-income consumers.

Whereas equations, whether in mathematics or ecology, do not have political meaning, the choice of favorite fields for costly research is in part politically motivated.

In spite of these obvious relations between politics and science, there is a persistent claim of political neutrality, or the claim that science is democracy's best friend (Sir K. R. Popper). The historian of science Joseph Needham proclaims that democracy might "almost in a sense be termed that practice of which science is the theory" (1949).

Open-mindedness and disinterested registration of facts have been thought of as supporters of democracy. Even a great scientist, however, may well be ignorant and dogmatic in all matters outside his specialty. His contact with people at large may be very superficial.

It must be conceded, though, that heavy-handed interference by politi-

cal commissars in scientific discussion is a condition that many scientists are willing to fight against, even at the risk of imprisonment and death (see, e.g., Medvedev 1969 on the Lysenko affair).

### *Autotelism, Intellectualism*

Does scientific knowledge have intrinsic value? Is knowledge to be sought for its own sake?

In my view it is never knowledge that has intrinsic value: only increased understanding does. The value refers to a subject that understands, given a finite capacity and available time. Understanding is personal; knowledge is impersonal.

For Roszak and many others of the counterculture, science as such has an inherent norm that says that knowledge is to be sought for its own sake "as a thing apart from compassion, humanity, wisdom, beauty" (Medvedev 1969: 253).

Against this it must be said that if science as a set of propositions or as a methodology is abstracted from the human scientific enterprise, it cannot contain its own recommendation. There will then be no norms saying that somebody should use the methodology without regard for wisdom or any other intrinsic value. On the other hand, if science is taken in the sense of the total human scientific enterprise, the norms of methodology are only one set of norms among others. Any action will have to be judged in the light of priorities. Thus, the complaint of lack of wisdom or compassion cannot be a general complaint in order to be justified. It only concerns particular actions or projects.

It is said that science has become more dependent on costly machinery, but this observation mainly reflects the needs of industrial states. There is nothing inherent in scientific methods, whether in the natural or the social sciences, that in an absolute way requires costly machinery. All depends on priorities of fields of research.

There is a minority of a few thousand people who do competent research without any public support whatsoever. They have some kind of job in order to obtain the necessities of life but spend most of their time in research. Their use of costly machinery is very limited and could be still less in a somewhat different society. Our conclusion is a counterattack: why do



not more people in the counterculture turn to research? It might make their life richer and more meaningful. Many teachers inside and outside our universities would certainly be glad to help them on their way.

It is a valid complaint that the scientific enterprise today includes a vast number of projects that add to our knowledge, but quite irrelevantly. It is also an impersonal affair in the sense of boring attempts to obtain a degree or a position. No personal or public interest is involved.

Again, this cannot be a completely general complaint, and we all agree that it is extremely difficult to find persons or committees who deserve to be entrusted with the power to determine whether the kind of knowledge or understanding aimed at in particular projects is worth having. More wisdom is required in the research communities. More self-respect, more joy.

### *Science Does Not Serve the People*

Marxists constitute the most important and powerful group attacking the scientific enterprise as it functions in Western societies, including Eastern Europe. They are basically antirevisionist, attacking Soviet science as vehemently as they attack that of the United States and the Common Market countries.

In general, these groups contend that the scientific enterprise, at least as it functions now, does not serve the people. I would say: "does not serve the underprivileged." Nationally it serves the exploiters, and internationally it exploits the Third World. This is evident from the fact that the scientific enterprise supports capitalism and social imperialism, and that neither of these serves the people. Science as it functions today is largely an instrument of domination. Its ideal is knowledge of the kind that supports any establishment, and hence the status quo.

Science, say the Marxists, should serve the needs of the masses rather than improve upon gadgets and services that are beyond the means of the less privileged. Medical research should concentrate on how to improve public health and not waste millions on special cures and operations that can only serve a small privileged minority.

Research in general should concentrate on the urgent problems of developing nations rather than spend vast sums on improving material conditions in affluent countries.

Under the influence of trends in China, there is also a tentative widening of the definition of research so that not just members of an elite with very special formal education can be scientists.

The "Serve the people!" movement may consistently oppose nearly every research policy at European universities without turning against science as such.

*The Limitations of Scientific Rationality and the Depreciation  
of Non-Western Cultures*

To what extent do countercultural groups through "the rising antirationalism" threaten the prevailing philosophy of science—let us call it  $P_1$ —and the university as we in the West have always known it?

There is, I believe, very little threat to Western universities from a philosophy of science different from  $P_1$ —but what if we add certain values to  $P_1$ : open-mindedness, tolerance, respect for the autonomy of the creative scientists? Let us call this more comprehensive philosophy  $P_2$ .

Large countercultural groups do not think these values are upheld in Western science, and to a significant degree recent historiography is on their side. Since the Renaissance the great universities have functioned mostly as strongholds of reaction and dogmatism. The "free" universities of Germany before the world wars were authoritarian, and the opinions of the professor *ordinarius* more or less sacred. Research followed definite patterns, which were not chosen through a sovereign scientific rationality but were largely determined by general historical forces and the dominance of particular metaphysical views. I can here refer to works by I. Agassi, J. D. Bernal, H. Butterfield, P. K. Feyerabend, T. S. Kuhn, I. Lakatos, and M. Polanyi.

For the purpose of this paper, the most important conclusion is that there is no independent scientific rationality. Only total views, such as that of Spinoza, are comprehensive enough to comprise norms of rationality of lasting worth.

To return to  $P_2$ , it seems that reforms of universities and of certain dominant patterns of research in the industrial states may well create conditions favorable to the realization of such a philosophy.

So much for rationality. Prevailing attitudes in many scientific communities attest to a rather narrow conception of what is rational—border-

ing on the merely efficient and the conventional. One subcultural complaint concerns the evaluation of non-Western cultures.

It is easy to find scientists who look down upon so-called primitive cultures. They cherish the belief that scientific rationality is an autonomous rationality requiring no philosophical or metaphysical framework. A kind of summary of textbook science is believed to furnish a scientific worldview.

An astonishing example is picked out by Roszak. He quotes Kroeber's *Anthropology*, page 298, where it is said that deviations from "scientific rationality" are chiefly found "among individuals whose social fortune is backward or who are psychotic, mentally deteriorated, or otherwise subnormal."

However, it is just as easy to quote scientists who express admiration of other cultures.

Since World War II, new branches of economics have developed that take the value priorities of developing countries as a basis for research. It is instructive to see how policies that are judged to be rational in Western industrial states are condemned as irrational within the framework of the new economics. In our industrial societies "a man who consumes more is 'better off' than a man who consumes less. A Buddhist economist would consider this approach excessively irrational: since consumption is merely a means to human well-being, the aim should be to obtain the maximum of well-being with the minimum of consumption" (E. F. Schumacher, in Daly 1973: 123–24).

Again, it is seen that while our science-inspired culture is extremely weak in some respects, it is healthier than ever in others. Far from despising other cultures, ecologists and social anthropologists often express great admiration for both primitive human and animal societies. If we were to list the twenty most pressing social problems and ask social anthropologists which of them are most successfully solved in which cultures, our industrial countries would not score high. Thus, we find scientists among our best-qualified cultural critics.

### *Reductionism and Positivism*

We now come to one of the most interesting criticisms of science itself.

Roszak defines reductionism as the attitude "which degrades what it studies by depriving its subject of charm, autonomy, dignity, mystery. . . .

As Kathleen Raine puts it, it is the mentality which would have us see in the pearl nothing but a disease of the oyster" (Roszak 1972: 264).

It should be unnecessary to stress that the scientific study of pearls need not imply lack of appreciation, but the publication of the results of such a study is rarely the right place to express that appreciation. Moreover, only scientists can properly assess the marvelous processes by which the oyster produces a pearl, and, so far as I know, usually it is only scientists who identify with oysters deeply enough to feel regret when an oyster is hurt.

It seems to me that Roszak, like so many others, confuses science with the learning of scientific results. Roszak's criticism does not concern research but its degradation. However, there are far more philosophical arguments concerning inherent scientific reductionism. Science explains, that is, often *reduces*, the mysterious and wonderful to the understandable. "[I]ts goal is the destruction of mystery" (B. F. Skinner 1971). Any scientific explanation is partial, however, and even if it were not, mystery and wonder may remain or even increase. Chemical and optical explanations of the luster of pearls or of the processes occurring in the oyster may elicit more wonder than isolated aesthetic appreciation. The advances in biochemistry make living matter yearly more fantastic and more unbelievably ingenious, but I see no reason why scientific journals should contain artistic expressions of the deep appreciation of the subject matter. Why compete with the poets? They have enough problems as it is.

Another charge of reductionism concerns the perversion of simplicity as a fundamental requirement in scientific theory, such perversion leading to a systematic reduction of subject matter in the study of complex phenomena such as the human personality. This objection is clearly valid when theories of personality are put forth with undue pretensions, as unhappily they often are.

Simplicity may be one of the main scientific reasons for theories that make the Earth circle the sun, and not vice versa. Among competing theories of the movement of bodies in the solar system, scientific methodology urges one to adopt the theory that explains the most through the simplest means. Now the solar system is very complex. Therefore, the simplest adequate theory is highly complicated. Thus, the simplicity rule does not forbid us to recognize complexity. Reductionism, therefore, is not a consequence of the simplicity rule.

The complaint of reductionism is intimately connected with the nearly universal charge of “positivism!” The meanings of this term vary widely, but very often it stands for *lack of reflection*. The positivist scientist, it is said, does not reflect on what he personally is doing or what his group or class is doing, what his presuppositions are, and in which historical situation he is an actor. The antipositivist movement is pro-philosophical and pro-politics, decrying the lack of autonomy on the part of scientists.

“[T]o desert scientific culture in disgust at its incorrigible reductionism” (Roszak 1972: 232) reveals philosophic misguidedness or sad defeatism.

### *Nature as the Object of Science*

In the last fifteen years extensive studies have been prompted by the question of how Western man could have developed such crude and cruel ideas about his place in nature. How has it been possible to ruin so much of nature without strong opposition from nature’s professional students? Why have some natural scientists since Galileo and Bacon been the leading proponents of the notion that nature is there to be subdued and exploited for narrow purposes, economic and otherwise?

Some have answered that it is largely owing to the prevailing scientific worldview, and the special character of natural science.

Hypothetico-deductive methodology has been singled out for special criticism. From general laws plus initial-condition statements, “predictions” are derived. Theories, it is said, are instruments for the control of phenomena through this function of prediction. The function of laws is mainly to fix the established order, to freeze existing conditions. This is clearly seen, it is said, when the social sciences imitate hypothetico-deductive methodology—as they do in technocracies.

However, the term *prediction* in hypothetico-deductive methodology is a name for directly testable sentences derived from initial-condition statements. They do not necessarily, or even mainly, predict future phenomena of interest. Nor is the tremendous stress on testability to be confused with emphasis on the control of the phenomena. The most admired hypothetico-deductive systems, such as the kinetic theory of gases, are clear examples of models, that is, of a very abstract kind of map of phenomena. The confusion

of map and terrain shows lack of real understanding of natural-science methodology.

"The world is *really* made up of atoms and the void." Clearly, there is a tendency to take fundamental natural-science models to be straightforward descriptions of the real world. The theory of primary qualities still has its adherents. Some still hold that colors do not exist in nature but are somehow made up in our brains. Thus, there are dominant trends in the scientific community that reduce nature to a vast chaos of waves and particles without properties: no colors, no tones, no definite forms, no recognizable qualities at all.

Such a nightmarish nature, of course, only deserves to be exploited and subdued.

A deeper study of natural science (including ecology) leads us, I think, to a much wider view of its methodology. There is not one but a number of methods in natural science. Careful study also frees us from believing that there is such a thing as a definite scientific worldview. All worldviews must go deeper than scientific disciplines; that is, they must include ontology, logic, and of course general methodology, which itself cannot be "scientific" in the sense of being subject to verification.

There is a tendency to imitate natural science in the contemporary study of society. Here again, there is room for very substantial criticism. The Frankfurt School has in eminent ways attacked the technocratic aspects of the social sciences and government-sponsored expertise, both of which play an increasingly powerful role in policy formation. However, its characterization of natural science is not tenable. There is no inherent tendency to manipulation and control in the hypothetico-deductive and other methods employed by natural science.

Concluding this section, we might return to one of its introductory questions—why natural scientists have helped destroy and exploit nature. Evidently, an important minority has been doing exactly the opposite—the naturalists. Enthusiastic botanists and zoologists have since the time of Aristotle fought the haughtiness and insensitivity of man. Paleontologists have always tried to make mineral exploiters and others take care not to ruin fossil beds. It is an irony of the history of ideas that countercultural authors have adopted the technocratic view of natural science or the textbook view, which suggests that "flowers hate botany." If so, why should not

flower-power hate science? The premise is false: the counterculture could learn a lot from natural scientists.

### *The Cult of Nonscience*

Mainly as a reaction to the hollow pretenses of the scientific worldview, whatever is conventionally judged to be unscientific tends to be wildly popular with academic youth. Young graduates and postgraduates, some of them in responsible positions, find satisfaction in all sorts of magic, in mythologies both ancient and modern, and in ways of life consciously violating scientific rationality. Any genuine human rationality is nonscientific, and to reject the so-called scientific worldview is perhaps one of the most rational things to do today.

Recently, the worldview revealed through hallucinatory drugs, as well as the sorcery and black magic of the Yaqui Indian "Don Juan"—as revealed in the three excellent books by Carlos Castañeda—has been widely praised. For many people with a university education, the world picture of black magic seems much closer to reality than that of modern physics, behavioral psychology, and other sciences. I think these protesters may be right. What is regrettable is that they seem to consider only two alternatives, a wild scientific worldview or a wildly magical one, abandoning the main philosophical traditions of both West and East. We should ask ourselves, Do our generalizations about the modern scientific enterprise do justice also to the research done in social anthropology and many other new areas? These are genuinely parts of the total enterprise and must be considered in any adequate assessment of the present and future function of science.

The cult of the nonscience provokes firm believers in scientific rationality, whose hollowness is revealed by their fierce reaction. An act is rational only if it conforms to a consistent set of ultimate valuations. Even to defend one's life is rational only when certain norms are accepted as valid.

Nor must politics be left out. The Marxist movement and subculture have taught us to analyze present-day power constellations and not to neglect the political fight necessary to establish a rationality of a more meaningful kind than is realized today in our industrial societies.

The eminent philosopher of science Paul Feyerabend attacks the self-glorifying ideology of scientists. They do not admit their dependence on nonscience and even the unscientific. “‘Unscientific’ procedures such as the herbal lore of witches and cunning men, the astronomy of mystics, the treatment of the ill in primitive societies *are* [said to be] totally without merit.”<sup>5</sup> Copernicus took over the idea of the “muddleheaded” mystic Philolaos, whose view was called incredibly ridiculous by professional astronomers such as Ptolemy. “Even today science can and does profit from an admixture of unscientific ingredients. An example is the revival of traditional medicine in communist China. When the Communists in the fifties forced hospitals and medical schools to teach the ideas and the methods contained in the *Yellow Emperor’s Textbook of Internal Medicine*, and to use them in the treatment of patients, many western experts predicted the downfall of Chinese medicine. What happened was the exact opposite. Acupuncture, moxibustion . . .” (Feyerabend 1975a)

Feyerabend has things to say about the social role of science that may gladden the heart of many friends of countercultures:

“Let us free society from the strangling hold of an ideologically petrified science just as our ancestors freed *us* from the stranglehold of religion!” Why should the ideology of science be compulsory in schools? “Physics, astronomy, history *must* be learned. They cannot be replaced by magic, astrology, or by the study of legends.” Feyerabend sees this as an inconsistency: if parents can decide whether a six-year-old child should be instructed in Protestantism or in the Jewish faith, why can they not decide whether the child should be instructed in the rudiments of scientific faiths? The governments should treat science as the United States treats religions. This means that financial support for science should “be drastically reduced.”

Again, the complaint against science is well-founded and needs to be taken seriously, but it does not touch science as such.

A last general remark on nonscience:

Because of the intellectually and epistemologically fragmentary character of individual disciplines and even of the total set of sciences at any time, a comprehensive or near-comprehensive view cannot be scientific. It follows that all consistent comprehensive views have an equal claim to validity—and none is scientific.



### Science in a Community in Ecological Equilibrium

What is called the deep ecological movement has a number of main tenets.<sup>6</sup> First, there is the pollution issue. The pollution caused directly or indirectly by the scientific enterprise is well known. Resource depletion is a second issue. The great consumption of energy and other resources through lopsided scientific development is under attack.

International science is hierarchical and centralized, with a built-in tendency to bypass research aimed at solving local problems. Ecological equilibrium requires intensive development of local research as well as decentralization. Self-sufficiency, not only in the material sense but also in educational opportunities, is a goal that can be rapidly attained if research is concentrated in these fields. Thus, the third and fourth aims of the ecological movement also call for a redirection of science.

A society in ecological equilibrium will probably have to eliminate many privileges. Even at the expense of professional efficiency, students and staff may have to partake in primary production. It is expected that this will also have a beneficial effect upon the prevailing ideology. It may further the basic ecological aim of making life complex rather than complicated, that is, of developing all faculties and opportunities, living in a rich local environment requiring many and varied kinds of activity, and on the whole obliterating the strict separation of work and leisure.

All in all, the deep ecological movement tends to give greater priority to action research—relatively short-term, goal-directed, informal investigations directed toward solving practical problems on the way toward ecological equilibrium. Because of the prevalent methodological primitiveness, high officials in universities and research institutions tend to scoff at such research problems. It is easier to get money for projects using sophisticated machinery and furthering what is now called eternalist science—science resulting in propositions of lasting value and general interest. The local problems of survival—physically and spiritually—are mostly not of this kind.

## On the Structure and Function of Paradigms in Science

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### Classical History of Pure Science and Modern History of the Scientific Enterprise

In the 1930s the Marx-inspired scientist Boris Hessen with a keen interest in history scandalized worshipers of pure science in general and of Isaac Newton in particular by asking questions such as whether the need for a superior technology of navigation in imperialist England influenced the genesis of Newtonian mechanics. Worse still, scientists inspired by Freud asked whether the castration complex might influence logicians in their conception of negation. The usual straight stroke as a sign of negation is at the same time a symbol of a knife. In these cases, science is seen as something certain people do who are just like most other people, impelled by a mixture of personal motives or by impersonal structures such as systems of production. History of science until that time was largely seen simply as a quest for truth with its own logic, that of induction, deduction, verification, and falsification. Other factors were treated under the title of heuristics, the art of discovery. All very laudable and decent, and deserving the name of classical history of science.

The central function of natural science during World War II furnished what might be called "real," highly professional historians with a strong motive to study the development of science with an intensity and a broadness of mind rarely, if ever, seen before. The historians inspired people with full competence in natural science to reshape its history. Instead of

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concentrating on internal, especially logical, aspects of science, the new study was, properly speaking, a study of the history of the scientific enterprise in its social setting, that is, the scientific community and the larger society.

The new look of science was known only to small professional groups until Thomas Kuhn published his *Structure of Scientific Revolutions* in 1962. With a brilliant, easily understandable terminology, he exposed certain aspects of the new trend in a way that inspired thousands of scientists in all major fields of study, including the social sciences and humanities.

In the years since the book's publication, his views have, of course, been subjected to criticism, and they have also been misrepresented and have invited extensions of which he did not approve. The work remains, however, a valuable source of inspiration, and his term *paradigm* irresistible.

### **Paradigms and Paradigm Shifts: Kuhn's Concept and That of Others**

#### *Kuhn's Concept*

A "paradigm," as this term was introduced by Thomas Kuhn in 1962, is, roughly speaking, a way of "doing science." It is characterized by the acceptance or use of (1) a fairly definite set of explicit theories and hypotheses, (2) a much less definite set of fairly general assumptions, and (3) a practice of experimentation and research behavior.

An adequate description of a paradigm is not easily produced by scientists themselves practicing science firmly and confidently within the framework of their definite paradigm. Much is implicit and relates to unexpressed features of that practice. It is an essential job for a historian of science to propose adequate description of the characteristics of a Kuhnian paradigm.

The examples of paradigmatic changes in the Kuhnian sense are those produced by the great scientific revolutions: Copernicus in astronomy, Lavoisier in chemistry, Galileo and Newton in physics, and Einstein and quantum mechanics in physics and cosmology. It is perhaps typical that professional historians are not highly motivated to point out Kuhnian para-

digm shifts in history itself. If a historian of historical research makes a lot of fuss about a sudden major shift in how historical research is done, his or her colleagues will immediately concentrate on finding predecessors—and they mostly find what they intensely want to find or believe they find, as we all do. However, even historians agree broadly, I think, that after World War II there was a deep change in doing history of science. I call it a shift from doing history of pure science to that of doing history of the scientific enterprise—considered as a social activity on an increasingly gigantic scale.

There are some notable properties of a Kuhnian paradigm: A community of scientists rather than individuals may be said to work within the framework of a definite paradigm. The work normally results in the accumulation of suspiciously well organized knowledge. The careful elaboration and definiteness of the framework ensure easy comparability and interpersonal testability. The members of the community know what to do, how to judge what is good and what is bad work, what to accept, and what to reject as absurd, arbitrary, meaningless, unscientific, or unfruitful. This all sounds good, but there is something rotten not just in Denmark.

A detailed framework is indispensable, but it narrows down how to pose questions and it prevents attempts to create new frameworks. A growing crisis is necessary to motivate members to try something shockingly new, something that is not so much mistaken as absurd from the point of view of the Kuhnian paradigm. Growth of knowledge without crises is a bad sign.

### *Non-Kuhnian Paradigms*

So much about the essentials of Kuhn's conception. What is relevant to the scientist's problems in cancer research is, I presume, scarcely paradigm shifts on the grand scale of the Copernican revolution or even the transition from phlogiston chemistry to that of Lavoisier. Olav H. Iversen and E. G. Astrup claim that they are "fully aware of some of" their own "paradigms, prejudices, and shortcomings" (Iversen and Astrup 1984: 51). The main use of the term *paradigm* in Kuhn's text is such that we work within one paradigm at a time and are *not* fully aware of it. I think it is fruitful to

use the term in a fairly wide sense, if not quite as wide as Iversen and As-trup in the above quotation. I shall concentrate on problems concerning dominance and shift of dominance of a theory with its particular conceptualization, and the concomitant practice of research, including experimental designs.

First let us ask, How is strong dominance possible in a community of presumably independent, open-minded researchers? Is it because a theory has been verified? The answer of today's philosophy of science—or meta-theory of science—is, Not at all!

The negative answer is most easily understandable when we concentrate on the relation between theory and observation. The total evidence for and against a theory is, of course, not only of an observational character, but I here deliberately limit myself to observation.

If by "theory" we mean a set of fairly general, abstract statements, there is no finite number of observations that can verify it. A theory about the function of insulin in human bodies is not limited to human beings presently living or to definite samples of insulin. Therefore, even billions of tests cannot verify the theory in a logical sense of proving its truth. The ratio of tested cases to possible cases remains the ratio of the finite to the infinite. Strictly speaking, a theory is not even made more probable by adding positive observations.

There is today a new factor. The ways of observation mostly include the use of immensely complicated instruments and machinery. A sentence written in an observational journal, a plus or minus or other short symbol, is only relevant to the test of the theory if the working of the instruments has been flawless at the moment of the observation. In short, there is no end to the premises assumed to be true or tenable if we say that we have verified a theory.

The distinguished philosopher of science Sir Karl Popper is reputed to have rejected the practicality of verification but retained falsification. If we look at a hypothesis such as "All ravens are black," a simple observation of color plus the help of a taxonomist may falsify the statement. Here is a raven, we say, and evidently it is green. However, the hypothesis "All ravens are black" is a simple generalization of something rather directly observable, and not what we call a scientific theory.

Suppose we make an observation that contradicts what we wish the

experimental setup to find. Is genuine natural-science theory then falsified? It is rather pretentious to say that. There may be a lot of weaknesses in our experimental setup, and perhaps the phenomena observed belong to the fringe of the intended field of validity of the theory. Suppose, however, that there is in the relevant community of scientists no doubt that it *is* a genuine disconfirming instance. From the point of view of logic, the theory is then falsified only if we suppose the community is right in its conviction. The curious conclusion is then that practically all established theories of high reputation are falsified, because there is at least one instance of disconfirmation, often unpublished, that we simply cannot rule out as spurious or misleading. I do not think we should say that all well-established theories are falsified, but instead say that there are some disconfirming instances that we cannot account for among a wealth of confirming ones.

In the above argumentation I use the term *established theory*, and now we perhaps reach the heart of the matter: the logic of scientific research is important, but the life of science, the activity within today's scientific enterprise, is not logical in any sense! What currently are the most successful theories are not the theories that are verified or shown to be probable, and the competing theories are not falsified or shown to be less probable.

When we try to understand the reasons for the life, death, or dominance of theories in natural science, what we may call the Mach-Duhem-Poincaré theorem is central. A somewhat long but precise formulation of the theorem is:

Given a theory  $T$  and a set of confirming observations  $O$ , whatever the number and kinds of observations, there are potentially an indefinite number of theories incompatible with  $T$  that also are confirmed by the observations  $O$ .

By two theories  $T_1$  and  $T_2$  being incompatible is here meant that the joint assertions of both of them yields a logical inconsistency.

The extremely simple general reason for the validity of the Mach-Duhem-Poincaré theorem is the availability of incompatible premises yielding the same conclusion.

By a theory  $T$ , I shall in what follows, as in the preceding, denote a

causal or statistical, general, abstract statement without temporal limitations, for example the limitation to saying what *has been* the case rather than what *is* the case. The succession of simple events such as light signals can be directly observed, but causes cannot.

Let me illustrate what cannot be repeated too often and that explains a lot about the anatomy and physiology of paradigms.

The considerable distance between theory and relevant observations can be illustrated by placing *T*, for theory, at the top of a treelike figure and *O*, for observation, at the bottom. The premises of the basic logical relation of derivation proceed down from top and branches. The highest branches contain abstract theories of logic, mathematics, physics, chemistry, and other abstract aspects of science that are presumed to be valid when testing *T*.

Farther down, the branches contain hypotheses from particular fields in the neighborhood of the theory *T* that also are presumed valid. The lowest, most numerous pairs of branches contain detailed descriptions of the particular situation, for example the experimental design and setup, the operations carried through by presumably competent people, and all other more or less directly observable conditions of each particular, singular observation. Most of the items presume the validity of abstract theories, the apparatus to measure time, the microscope, and so on.

A definite well-arranged test by observation is one that either provides an instance of confirmation or an instance of disconfirmation of the theory. Adding instances of confirmation does not yield verification, nor does adding instances of disconfirmation yield falsification. Seen from a logical viewpoint, why is this?

Compactly reformulated, it owes to the circumstance that the statement *T* is only one of innumerable premises that together furnish the derivation of *O*, that is, predict *O*. If we do not get the observations we should have, if the theory is correct, why is it then not falsified? Simply because of one or more of the innumerable other premises that *T* may be wrong. The experimental setup may contain a flaw, that is, one of the statements on the lowest branches may be false, just to mention one kind of possible weakness.

If we get what we predict, it does not directly concern the validity of *T*

because innumerable other theories inconsistent with *T* are also, according to the Mach-Duhem-Poincaré theorem, compatible with the particular observation *O*.

Let us consider an analogy:

From	All fishes are warm-blooded
and	All whales are fishes
we derive logically	All whales are warm-blooded

Here two wrong premises furnish a valid construction.

Every confirmatory instance of *T* may in principle be attributable to untested faulty assumptions; the same may hold of every disconfirmatory instance. In short, whether we observe the predicted *O* or something entirely unpredicted has only a very distant relation to the validity of *T*.

The two-stage theory of carcinogenesis formulated in a concentrated fashion by Boutwell, Urbach, and Carpenter (Iversen and Astrup 1984: 53) contains twenty-seven short sentences of more or less abstract character. Few theories, carefully formulated, can be made any shorter. The introduction of a measure of probability—for example, an assertion that the probability of the theory is .21—can scarcely be of any use, if practicable at all. Tests are scarcely able to confirm or disconfirm even a small number of assertions of the theory. More serious is the tendency of untested research practice (experimental design, technology) to be stereotyped in such a way that theory hardly can be disconfirmed. “Probability” measured by confirmatory instances approximates 1 but is totally misleading. Talk about the probability of a theory being true may be acceptable at a superficial level, but talk about the probability of a paradigm is not acceptable, even on that level. The whole tree of assumptions is relevant. A probability of the sentences of theory *T* cannot be singled out and isolated from the sentences expressing the complete mass of assumptions. Theories and paradigms have complex properties that motivate their acceptance or rejection. Probability in any precise sense does not belong.

We are *in practice* justified in saying sometimes that a theory is heavily disconfirmed or highly confirmed. Practical research has, and must have, considerable distance from logic. This is not generally admitted, however, so we see researchers treat theories as if simply verified or falsified, that is,



simply *shown* to be true or *shown* to be false. To a degree, this talk is good for the moderate stability of the scientific enterprise, and it is also a source of happiness for scientists. It is satisfying to verify a theory and contemplate how wrong the opponents are.

I shall end this deliberately repetitious treatment of the relation of the theory to observation by mentioning a humorous example. The very learned non-astronomer Velikovsky derived from premises utterly false or improbable, according to the astronomical establishment, the conclusion that the surface temperature of Venus is several hundred degrees hot. At the time there was a lot of laughter among astronomers, but then actual observations were made, and Velikovsky's conclusion verified in the opinion of astronomers. It was slightly annoying to some of them, but mainly because of the illusion that when a logically valid inference is made from a set of premises, and the conclusion is accepted as true, one should, according to scientific methodology, take the premises rather seriously. According to the Mach-Duhem-Poincaré theorem, however, we need *not* take the particular set of premises seriously.

The above logical excursion is astonishingly well adapted to explaining the frequent dysfunction of paradigms. Successes of a theory in explaining and predicting strengthen the opinion that the long series of confirmatory instances reveal the truth or probability of the premises, and among them the theory formulation itself. This creates an untenable prejudice in favor of the theory and favors its domination.

Furthermore, the successes strengthen the tendency to define the terms used in the theory in terms of the particular processes of testing and confirming it. This decreases the likelihood of disconfirmations, not because of the large area of validity of the theory, but because the so-called operational definitions have narrowed down the potential area of disconfirmation. The resulting head-shrinking of the supporters of the theory goes unnoticed because conceptual analysis is not a main concern of the practical researcher.

Fruitful concepts are mostly vague until made more precise by attachment to processes of testing and observation. Such attachment is utterly important for science. It is useful to recall perhaps the most epoch-making operational definition of the century, that of simultaneity advocated by Einstein.

We all have an intuitive notion of what it means to assert that two events *A* and *B* occur simultaneously. The relative velocity of movement of the bodies upon which the events happen is clearly irrelevant. Physics, however, requires a testability of the assertion and this implies the use of light. The universally accepted definition of simultaneity is now in terms of the remarkable properties of light. Completely counterintuitive but “operationally” satisfactory!

This example has been mentioned for only one reason: to illustrate the compelling force of attaching concepts of a theory in natural science to processes of testing that theory. (The example is not so good in illustrating a second important point: when the theory is attached to established procedures, alternative procedures are ruled out by definition. In cancer research this may be of practical importance, but in theory of relativity there do not seem to be possibilities other than attaching concepts of time to that of light. Very wonderful and strange, but so it seems to be.)

In general, the successes have the effect on most researchers of stabilizing the gigantic set of, in part, rather arbitrary assumptions that they have made. In other, simpler words, the successes stiffen what one simply takes for granted. This stability is one of the main reasons for talking about a tradition of research or, today, talking about a paradigm. It belongs to the anatomy rather than the physiology of the paradigm. To the physiology belongs the function of auxiliary hypotheses. When a theory does not quite live up to its good reputation, assumptions are added that quite consciously are made to help the theory get confirmed in new areas or in recalcitrant subareas. If the auxiliary hypotheses help, their ad hoc character is easily forgotten, and by a sort of strange feedback, the success adds to their reputation. They are now believed to be valid on their own. They furnish another protective wall against the onslaught of serious questioning of the whole Christmas tree of assumptions.

In all I have said I have used a logical model, the Christmas tree of derivation (or inference) from assumptions. Kuhn and his followers have gone into psychology, social psychology, and in general, the genesis of paradigms of the grand type. I should perhaps add that such analysis is as pertinent as the logical, but talking to researchers in the present and not about the past, the logical and conceptual analysis must be the point of departure. It takes the actual views of the researchers seriously and just points

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out the large freedom of choice owing to absence of strict verification and falsification of theories. All is hanging in the air, more or less. One never need feel closed in because so much is peacefully taken for granted by most of one's excellent colleagues. The status of established so-called facts is not logical and conceptual; it is more like the establishment of habits and customs. With today's intricate processes of observation, the purity of data is less obvious than ever. Scientists are entitled to go to bed wondering, and to enjoy wondering. They may indulge in an open-mindedness toward alternatives that sees few limits.

## Why Not Science for Anarchists Too?

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*Das war eine grausame Salbe!* I suspect that this or some similar exclamation will spring to the lips of many readers of Paul Feyerabend's essay and "Theses."<sup>1</sup> At the risk of being judged pedantic and completely lacking in humor, I should like to take the opportunity to sort out and comment upon a selection of norms and hypotheses suggested in the two pieces.

### External Relations of Science Underrated?

It is true that the study of science's internal relations, such as the mutual implications of hypotheses, or the influence of one theory upon the acceptance of another, has been carried out with more energy, and has (perhaps) been more willingly supported by the research administrations of English-speaking countries, than the study of external relations. These latter are primarily the relations of the scientific enterprise (including the scientific communities or scientific social systems) to society in general, including all social systems, national and international. However, since the meeting of the International Congress of the History of Science and Technology in London in 1931—with ample Soviet Marxist participation—and more specifically, since the triumph of military science in World War II, the external relations of science have been increasingly studied, and, what is more important, studied critically as part of a political and economic establishment. The reader is invited to inspect the short appendix at the end of this paper.

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One central theme in this connection has been the function of science within so-called advanced technical-industrial societies (the United States, the Soviet Union, and the European Economic Community, in particular).

It is a main thesis of Johan Galtung, for example, in his *Methodology and Ideology* (1977), that there is a clear and detailed isomorphism between rules of scientific methodology and ideological posture. There is ample evidence for this—though of course the correlation between Galtung's own methodology and posture also needs clarification.

### Grievances Against Science as Part of the Advanced Industrial State

A great number of grievances against uncritical acceptance among scientists of the aims and institutions of the advanced technological societies have been formulated and are under discussion.

Paul Feyerabend's papers offer valuable formulations within this debate. In schools and universities, science is still largely taught as if it were an ahistorical phenomenon. As teachers we are all more or less responsible for the deplorable effects of this, and should support those who work for change so that future students "will study science as an historical phenomenon *and not* as the one and only sensible way of approaching a problem" (Feyerabend 1967: 175).

Feyerabend proposes that schools give equal opportunity to magical and other ways of approaching a problem, and that none should be obligatory (ibid., pp. 175–76). Excellent—at least insofar as there is a widespread illusion to combat.

### The Illusion of a Scientific Philosophy

The use of formal-logical, mathematical, psychological, and other limited scientific and nonscientific techniques within a broad debate on philosophical issues has, I think, contributed positively in the historical development of research. At the same time, though, a "positivist" and "reductionist" tradition has developed that takes Western scientific techniques and conceptual frameworks too seriously and scorns anything else, especially metaphysical, religious, artistic approaches. Conceptions of "scientific rationality"

have been promoted that are narrow, intellectualistic, and provincial, taking Western natural science since Galileo as the sole paradigm.

The technically advanced conceptual frameworks used in philosophical debate are sometimes taken to constitute the whole of philosophy. There will naturally be a reaction against this, and Feyerabend helps to bring it about.

### Science Not Considered Neutral

Feyerabend claims that science is not neutral or without prejudice but is “an historical phenomenon” (*ibid.*, pp. 169, 175). Yes, and hermeneutics, the Frankfurt School, and much Anglo-American sociology of knowledge have all contributed to the detailed picture of science as a historical, political, and ideological phenomenon. These aspects of science have been studied with such intensity that sometimes the internal relations of science have disappeared from view. This accounts for the widespread acclamation of Hans Albert and others who support various forms of Popperian rationalism in the ocean of continental European “antipositivism.”

### New Lifestyles: For an Elite or for the Many? The Role of Research

The cultivation of spontaneity, creativity, nonparticipation in the rat race, downgrading of grading and of formal education—all this plays a part in new lifestyles. To whom, though, are these lifestyles open?

Somewhat different attitudes toward science are required depending on whether the new anarchistic lifestyles—in beautiful natural surroundings and concentrated around essential life needs—are supposed to be open to many people or only to a few, a small elite, as is the case now. Further, the fortunate elite has to consider whether it is going to try to help the less fortunate. In what follows I presuppose that a new lifestyle is going to be possible for many and therefore requires political action within the existing framework of so-called advanced industrial societies. As will become clear, I hope, we shall have to support many kinds of research, some strictly scientific, others rather sloppy, and to join in the opposition to others. Insofar as making programs goes against Feyerabend’s philosophy, this of course violates his principles.

### Science for Subcultures

Today's nonviolent anarchists and nonanarchists try to maintain old-fashioned, or develop new, forms of community, adopting lifestyles different from and in opposition to the dominant ones. The emerging subcultures have members and supporters among scientists. With their high status and access to people in power, the latter are sometimes able to contribute to the defense of the new communities, for example, by preventing their erasure through administrative action. There are also lines of research that are directly influential in defending such communities, for example, those that furnish arguments against the further undermining of small communities. Besides the typical establishment-supporting science, there is also science helping the minorities who wish to find their way out of the present impasse in the technical-industrial societies. Maybe the help is little, all too little, but one should not fight science in general if this means destroying a source of support for, say, nonviolent anarchists.

### Underestimation of Nonscientific Knowledge

From the history of research we know that insight among people without "scientific" background and training is often superior to that of highly trained scientists. Thus, when experts are asked about the environmental consequences of certain building ("development") projects along the coast, local fishermen can often furnish more relevant data and theories than the scientists ever could. In other cases, scientific projects costing enormous sums of money, at least from the point of view of the local people in developing countries, produce only a couple of insights that to them have long been commonplace. Feyerabend is, I think, completely justified in combating the overestimation of insights gained through methodologically "correct" procedures, and in combating the illusion that scientific theories are inferred by some kind of inductive logic from indisputable data. This overestimation is not, however, a general attitude, and one of the ways of combating overestimation is to teach better, more critical philosophy of science, especially history, sociology, and politics of science in a philosophical perspective. This means not less, but more relevant science! Feyerabend is right, too, I think, in asking for less concentration on science in education. Here there is a genuine problem.

Teachers are educated so as to feel competent only when distributing general knowledge—and the “best” knowledge tends to be conceived as scientific. Defense of other kinds of knowledge requires more courage and stamina.

### **Small-Scale, Soft, Action-Oriented Science**

A substantial part of research has modest pretensions as regards methodology. If an investigation is carried out a little more systematically, with somewhat more explicit assumptions, and attention paid to some extent to what has been done by others in the field, it is called science. Consider, for example, a social psychologist testing the hypothesis that children on their way to school are careless in traffic. She does so by drawing up some statistics on where there have been accidents, and finds that some places show far more accidents and that those places have certain things in common. So to some extent she disconfirms the original hypothesis of carelessness and supports the hypothesis that it is the road engineers who have been careless. She recommends radical changes in the way traffic is handled.

### **What Do All Kinds of Science and Research Have in Common?**

The above example is perhaps too crude a rendering of the particular “action research” I have in mind, but the main point is this: in general, research is only everyday finding-out done somewhat more thoroughly, reported somewhat more accurately, and with a little more stress on testability.

Approximately the same conclusion is valid if we look for common characteristics in research done in extremely different cultures. We must then accommodate Pānini’s grammar, Ramanujan mathematics (which lacks proofs), Egyptian geometry, and so on.

### **Science Helps Us to Learn About Nonscientific Cultures**

“Galileo played the practical knowledge and general philosophy of craftsmen and artists off against the theoretical knowledge of the schools, and thus furthered mechanics” (Feyerabend 1967: 172). Something similar happens today. Research of the most diverse kinds—from medicine to military science—can learn from practitioners, magical and others. Moreover, action



research is a central slogan in applied social science, which is highly influenced by people who have jobs outside academic circles, such as social workers. In China a broader conception of science than that of the West is being evolved. Its program is to mobilize the inventiveness and special know-how of ordinary workers, giving their ideas a chance to be put into practice, as was the rule when something useful was discovered by established scientists.

Thus, a broad movement within the communities of scientists tries to put into practice Feyerabend's recommendation that "we must use *all* ideas, *all* methods, and not just a small selection of them" (1967: 173).

There is a healthy tendency today to mix science and nonscience. Thus, in social anthropology one lives in a nonindustrial society in order to try to grasp—by no definite "method"—what is going on.

The line between science and nonscience is not as marked as it once was. One reason is the increasingly frequent practice of not marking "research" as a separate item in the budgets of undertakings that require a mixture of research and many other kinds of activity. Nearly any specialized activity today, in our strange societies, requires some form of research, and usually of a rather practical kind. So why try to disentangle what is so intimately connected?

"Primitive tribes have more detailed classifications of animals and plants than contemporary scientific zoology and botany" (ibid., p. 173). Yes, and it is mainly scientists who are every year bringing more instances of this to our attention—that is, to the attention of people within certain "generalist" milieus. The fields of human ecology, especially social anthropology, are being increasingly cultivated. Students from engineering, business administration, theoretical physics, and other hard-boiled areas crop up in institutes that are concerned with societies very different from our own overdeveloped industrial ones. Unhappily, though, there is a shortage of funds and facilities! Hard science still dominates, as do "hard" techniques, although soft research and soft and "intermediate" techniques are developing steadily. (Cf. E. F. Schumacher's *Small Is Beautiful*.)

### Status of Scientists Too High?

"[Scientists] have more . . . authority than they deserve" (Feyerabend 1967: 170; cf. p. 176). Yes, in terms of privileges, but when scientists use their specialties to help solve urgent social problems, for example, problems of

health or resource distribution, why oppose their well-earned status? The urgent social problem here is to increase the status of social workers by giving them the formal education they presently lack.

The status of zoologists, botanists, plant geographers, ethologists, and other “soft” scientists has been rather low within the hard-science establishment. Through the environmental movement, though, these people are not only more respected, they are even listened to by people in power. I do not think we should oppose this status. Their job is difficult enough as it is.

Conclusion: (1) The desirability of a reduction in scientists’ status depends upon what kind of scientific activity we are talking about. (2) Reduction of earnings and privileges is desirable and will probably reduce their status.

### **There Is No Scientific Rationality**

Feyerabend attacks the narrowness of scientific rationality (*ibid.*, *passim*). In some scientific groups and communities, rationality is conceived rather narrowly. Acupuncture, extrasensory perception, herbal lore, and hundreds of other phenomena are rejected out-of-hand.

Broad, open-minded conceptions of rationality have also had their representatives among scientists, however. Today, all the above-mentioned phenomena are discussed and research instigated in order to keep frontiers moving. Social anthropologists such as Carlos Castañeda and Michael Harner not only investigate sorcery, but take part in it as a matter of course. Castañeda’s works are listed in curricula on a par with those of Galileo and later representatives of modern science.

Furthermore, researchers supported by scientific establishments are taking up such themes as Kirlian effects, ozonotherapy, homeopathy, and auriculotherapy, and are doing it within a Hippocratic framework.<sup>2</sup> Insights found in nontechnical, nonindustrial societies are taken seriously and our own tendency toward provincialism counteracted.

### **Resistance to Scientific Propaganda**

“Build up the resistance to *all* propaganda, including the propaganda called ‘argument’” (*ibid.*, p. 176). Argumentation within scientific activity

may well have a propagandistic function more potent and less easily detected than elsewhere, and so-called scientific textbooks deepen the propagandistic element among people who are less able to test the propositions than the scientists. I would think, however, that modern, highly critical mass-communication research, including propaganda analysis, should continue to be one of the ways in which resistance against any propaganda is fostered—this in spite of its use of argument in the analysis of examples of propaganda.

A considerable problem is that those who are good at propaganda analysis tend to be politically passive, perhaps because resistance to propaganda correlates with resistance to being influenced by any communication. Isn't what Feyerabend has in mind sometimes—for example, when writing articles—resistance to propaganda other than his own?

### Research and Lifestyle

"Basic beliefs, such as the theory of evolution . . ." (Feyerabend 1967: 176). It is excellent to try to avoid propaganda in support of theories of the evolution of species. Students might be given an opportunity to acquaint themselves with various beliefs—say, beliefs concerning fossils—in various cultures, perhaps including our own Middle Ages. This would introduce them to the play of the devil, a long-neglected theme, at least at MIT and other prestigious places. I think, however, that one should not shun paleontological materials, for example, the inspection of the bones of a succession of horselike creatures: Eohippus, Mesohippus, Miohippus, Anchiterium, Kalobatippus, and so on—or even better, participation in a refreshing fossil hunt in a beautiful landscape. Again, though, only a small minority are today able to choose how to live and to do research. We need political action in favor of enlarged opportunities for the many.

Some people are able to combine research with anarchist lifestyles and healthy scepticism toward grand theory, whether evolutionist or antievolutionist. A general decrease of available funds for research will make it more difficult except for a tiny elite to combine research with the lifestyles of our subcultures. As before, my conclusion is: not less research, but more *relevant* research—relevant as part of a meaningful life.

### **Stronger Belief in Magic May Strengthen the Belief in Technical Science**

A stress on education in magic might have effects that would be deplorable from the anarchist viewpoint: a strengthened tendency to look upon spectacular natural science as magic. Pedantic methodology is much more important in sorcery and magic than in research. Influence from a public versed in magic might strengthen the scientific establishment rather than the opposition.

### **Some Science Is Good for Anarchists**

It seems that Feyerabend generalizes unduly his experience among admirers of modern big science, especially the cult of science among philosophers of modern physics. Much of the social and historical research of the left-wing opposition has practically all the features that Feyerabend finds lacking in what he calls science: researchers have little respect for pedantic methodology, they believe implicitly in "anything goes," they are dedicated to radical reform or to "revolution," their "scientific" pretensions are moderate, they extol cultures other than the industrial, they stress nonintellectual aspects of rationality, and they fight against the elitism and waste of the hierarchical establishment science. If the trend of oppositional research continues for another decade, research worthy of acceptance by Feyerabend may grow to be one of the significant factors in the fundamental change of Western industrial society. After all, the dominant trends in science reflect to a high degree the kind of society in which it functions, and only general changes in society can change the kind of science that dominates. Even if what is dominant today continues to dominate, philosophy (except perhaps for the very academic variety) teaches individuals how not to be dominated by the dominant.

### **Science and Joy for All**

Roald Amundsen in his *Through the Air to 88° North* (1924) wrote consistently as a "researcher." On every other page there is some note on research: a temperature reading, a perception that no land is to be seen anywhere,

and so on. If we are methodological pedants, we can say that the expedition was 95 percent adventure and 5 percent mild and soft research of sorts. Heyerdahl's expeditions on the *Kon-Tiki*: 94 percent adventure and 6 percent research of the kind that leads to professional reputation. I could mention hundreds of other projects—probably more in these days than in any other age, including the age in which Feyerabend thinks science was not so bad. I refer to research projects that delight the researcher, the public, boys and girls from ten to ninety, and do not cost millions. Entire research communities are alive with such projects, and one can only regret that Feyerabend has lived so many years in the top-prestige and apparatus-dominated environment of quantum physics.

The kind of research I recommend, which I hope will engage millions of amateurs and thousands of professionals in a century not far from our own, will perhaps never be dominant. Why, though, should we look at what is dominant? *Mensch ärgere dich nicht!* Let us never be dominated by the dominant. Spinoza, or our less "fortunate" neighbor, can teach us how to concentrate on what is worthwhile.

### General Conclusion

Feyerabend's indictment is primarily an indictment of the financially dominant trends of contemporary science in the overdeveloped industrial or "apparatus" countries. Other trends are supporting radical change. Even if these trends are weak, they are in excellent harmony with certain philosophical and scientific traditions of the past and of many "underdeveloped" cultures of the present. If these trends are destroyed together with the dominant, defective trends, the task of radical reform will be still more difficult.

### Appendix

The following is a list of grievances against science found articulated by writers on modern cultural phenomena. I have listed only those grievances that to some extent, and if carefully reformulated, seem to me both justified and important. It is primarily the task of our scientific communities to discuss the grievances and work for reforms where urgently needed.

*Current Main Grievances Against Science*

1. Science does not speak truth to power. Scientists keep quiet if amply rewarded.
2. Leading scientists take part in creating new, terrible, ecologically devastating ways of waging war. Scientists support any state or regime if sufficiently rewarded. Some serve the state through research on how to torture, taking part in international instruction on how to torture without organized opposition from their colleagues.
3. Scientists do not fight their own elitist and privileged social position. Most scientists support a class society and the status quo in general.
4. Scientists neglect to investigate abuses of their findings and refuse to be responsible. Scientists claim too often, and with insufficient evidence, that they are unable to ascertain how their findings are used and to halt misuse, including uses they consider unethical or even criminal. They organize more readily to secure higher pay than to stop abuse.
5. Scientists support technocracy and irresponsible social engineering; serve the increase of waste rather than the movement to halt irresponsible resource policies; support spectacular science for an elite rather than research useful for developing countries; and support the government's capacity to control through prediction of social events rather than to govern on the basis of explicit value priorities.
6. Modern experimental science tends to be meddling and disrupting, despite its claim to be socially and politically neutral. A widespread aim of science is to control phenomena by predicting them.
7. Scientific research is characterized by disrespect for personal dignity, cruelty to animals and human beings, and usurpation of power over people through questionnaires and interviews.
8. Its adherents teach falsely that science by its very nature supports democracy and freedom.
9. Another false teaching is that science needs no philosophy or metaphysics but has an intellectually indubitable basis in itself. The propagation of the scientific attitude is really a propagation of narrow intellectualism.

PHILOSOPHY OF SCIENCE

10. Science does not serve the people at large, but mainly the well-to-do, the upper strata, and its own expansion.
11. What is called scientific rationality is mostly a soul-narrowing, superficial reliance on the intellect. Scientists lend their weight to the devaluing of insights found outside their scientific communities and look down on cultures that have no science, or very different kinds of science from that of the industrial societies.
12. Science by its very methodology is apt to support "reductionism" and "positivism," to destroy wonder. Science requires simplification but does not admit that it simplifies. Science supports the unreflective mind and does not insist on a critical examination of its own activity.
13. Science favors a view of nature that invites dominance and rape; tends to lead people away from nature and to favor interference and change as a goal in itself; and supports the belief that nature "really" is colorless, that the physical world picture actually represents reality.

### III

## THE PHILOSOPHY OF PEACE AND GANDHIAN ETHICS AND COMMUNICATION

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## Nonmilitary Defense

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The traditional means of defending life and freedom include a major emphasis on the military. Because of technical developments, the use of these traditional means could result, in ten or fifty years, in there being few human beings left to enjoy freedom or to struggle against tyranny. Nonmilitary methods of struggle also exist, however. It is the aim of this article to explore to what extent these nonmilitary methods might be developed to serve more adequately the need for means of defending life and freedom, and along what general lines such a change might operate. I do not claim to offer a panacea, a detailed blueprint, a final answer to every aspect of the problem, and certainly I do not offer an easy way without risks. There is no realistic response to the current crisis that does not involve risks. Here I am merely seeking to establish a reasonable case for why we should seriously consider an alternative method of defense that has, relatively speaking, been ignored. Having in mind the defense of the way of life of people with whom I identify—primarily Norwegians, but also many others in many countries—I shall attempt to broaden the traditional concept of defense and defense institutions. It is my belief that thinking in terms of the broader concept will strengthen the possibilities of peace and freedom.

### The Inadequacy of Military Defense

The need for defense is greater today than ever before. The decline in the importance of military defense does not reduce the importance of defense in general.

This article was reprinted with permission from *Preventing World War III, Some Proposals*, edited by Quincy Wright, William M. Evan, and Morton Deutsch (New York: Simon and Schuster, 1962), 123–35.

To defend Norway today means to defend our independence, our freedom to shape our lives within the framework of Norwegian social traditions and culture, and to change them as we wish. It is to defend a way of life against all external forces that would alter it without our consent. From experience we know that events in another country can endanger our freedom. Throughout the world there exist dictatorships or power concentrations under various labels that for ideological, economic, military, and other reasons may threaten the freedom of other countries. The Soviet Union is one of them, and I share the view of those who are convinced that a continued advance in power and influence of the Eastern bloc sooner or later may reach the point at which Norway could be taken within that bloc's sphere of influence and possibly be occupied. This would clearly threaten our ability to form our own institutions, and might even involve the deportation of our people to the expanses of northern Asia.

In the event of nonnuclear war, Norway might hold out for hours or even weeks, but in any war between the major blocs we must expect occupation under a more or less benevolent or malevolent military dictatorship. If the war should end with the (so-called) victory of those states introducing a way of life we despise and a totalitarian state machinery, conditions resembling those of the occupation during World War II would again exist. Even in the event of the establishment of a world state, it will be necessary for the peoples of the world to develop means by which to check the possible abuses of power and dictatorial tendencies that could arise from such an extreme concentration of power.

What means of defense happen to be the most effective is relative to what is to be defended. In defending a way of life, we must avoid those means that would undermine or destroy the way of life to be defended and the very people who cherish it.

For hundreds of years the world was such that the defense of Norway could be identified with the defense of Norway's geographic borders. Defense of a territory against physical invasion was often defense of a way of life, a cultural pattern, or an ideology. In this context, military forces strong enough to keep the invader out were conceivable and possibly were effective. Today, however, we recognize that the relative independence we enjoy is the result of many forces and conditions outside Norway. It is these

forces and conditions that we must seek to influence in order to preserve our independence. Military preparations are inadequate to the task.

Against a powerfully armed totalitarian state, military defense of Norway's geographical boundaries by its 3.5 million people<sup>1</sup> alone might be heroic, but it would inevitably be futile and quixotic. Allied with NATO, we increase our military resources, but those resources are not in the long run more effective. As well as increasing the likelihood of occupation during a major war, alliance with nuclear powers makes more acute the danger of annihilation by nuclear weapons. Even though not a single enemy soldier crossed our borders, our existence could be terminated. It is also possible that strong alliances would force Norway to fight nuclear wars for aims that most of its inhabitants do not consider basic or of supreme value.

Hence, the very notion of defense needs clarification. Simply *to call* something a defense measure does not make it capable of defending anything whatsoever. Let us therefore read "military defense" as meaning "military preparation for the eventuality of war." Military preparation is the most thoroughly institutionalized means of defense, but there is no good reason for narrowing down the concept of defense by identifying military defense with defense in general.

### **Nonmilitary Defense**

As wars have become increasingly more destructive, there has grown up a conviction that the use of modern weapons is justified only, if at all, in the service of fundamental values. At present, however, foreign policies are generally shaped, not to protect and extend fundamental values, but to uphold or change existing power relations in favor of this or that nation. Military means may still to some degree be effective for such customary aims. A foreign policy shaped mainly to protect and extend fundamental values could scarcely make use of modern weapons and thus risk a nuclear war, because a war would violate some of those values that are to be defended.

Immediate dissolution of military defense organizations is not likely to realize the aims of those who believe in substituting more or less completely nonmilitary methods for military defense. If at present the military organizations were to be greatly reduced unilaterally or even universally, it is probable that many people would feel more insecure, threat-

ened, and helpless than ever; the passive state of despair and fatalism would actually be reinforced. If one takes away the only means of defense a person *believes* to be truly effective, he certainly has every reason to feel frustrated. Thus, a reduced reliance on the military must be preceded by *the development of increased confidence in and the gradual adoption of alternative means of defense*.

Let it be quite clear that I do not advocate what is usually called pacifism as an alternative to present policies. As an organized movement centering on individual conscientious objection to participation in war, pacifism must from the political scientist's standpoint be regarded mainly as nonpolitical. It is also clear that although pacifists are not always without political influence, they have no common platform. What I am interested in exploring is a primarily nonmilitary defense policy determined by the political and military realities of our day. In light of the current political situation, such a policy cannot call for immediate disarmament.

### **Commitment to Freedom**

Since a nonmilitary defense policy depends on the active participation of the populace in times of emergency, it is vital that the citizens understand what it is that they are trying to defend. The first stage in developing a nonmilitary defense policy is therefore the clarification of the principles that we value and the qualities of the way of life we wish to pursue, so as to increase our commitment to these principles.

Various steps might be taken that would further this understanding and commitment. The most apparent need is for a national self-examination by all parts of the population concerning what it is in our way of life that we cherish and wish to extend and preserve. Discussion groups, panels, debates, articles, books, essays, and radio and television, on both local and national levels, must be enlisted to facilitate this self-examination. Every scholar interested in the question should be provided with the opportunity of obtaining funds for study and publication. Schools, universities, churches, and other educational institutions could serve as local centers for this national program.

This program might be called ideological, but the term must not be confused with ideologies as detailed systems seeking to force compliance

and converts. What is needed is work on the ideas, ideals, and moral convictions associated with freedom, not with force. It is, of course, possible and desirable that an effective program of this kind might influence other countries and contribute to the liberalization of potentially aggressive dictatorial regimes. This would be one demonstration of the direct relation of this program to the problem of defense. On the home front, it would strengthen the motivation for defense and assist in the mobilization of defense energy in times of crisis.

### **International Service**

The second general policy that would in the long run contribute to a fulfillment of our society's ideals and the meeting of human needs as well as to defense is *international service*—service to friendly countries, "neutrals," and potential enemies alike.

Thanks to Henrik Wergeland, Fridtjof Nansen, and others, there is in Norway a tradition stressing global solidarity and responsibility. If the opposition to the programs advocated by Nansen had not found such strong backing in various powerful countries, there might have developed forms of cooperation on the international level that would have reduced the likelihood of wars. Since 1945, Norway has organized help to countries in which physical disasters have occurred (floods in Italy and Holland, an earthquake in Morocco, etc.). Fisheries in India have been supported in various ways with combined government aid and voluntary contribution, and a variety of other activities have been carried out, all of which might be said to exemplify international service. Other countries have made similar efforts, sometimes more comprehensive and better organized.

It is now time to show the close connection between such measures and defense, and to try to make such international service more effective on a larger scale. Such enterprises need to be integrated into the country's normal economic system, for example, by lowering import duties on products from areas that we assist and encouraging an expansion of trade with them. In addition, it is important that there be some kind of reciprocal aid, such as cultural programs, with the countries receiving assistance. It is cooperation and *mutual* aid that will reduce tension in the long run, and not simply humanitarian help.

International service should be undertaken for its own sake, to relieve suffering and meet human needs.<sup>2</sup> It is also important as a means of expressing and implementing our nation's way of life and principles, particularly the concern for human dignity and justice and freedom upon which we like to think our society is based. To undertake international service purely from the "ulterior" motive that it will assist our own defense effort will reduce or destroy many of its intrinsic values and its contributions to that effort. However, it is important to recognize the relation between such efforts and the defense problem.

First, in relieving suffering and poverty, international service will contribute to the removal of important causes of conflicts and wars. The relationship of poverty, gross inequality, and suffering to violent conflicts, hatred, and war is too widely recognized to require detailed elaboration.

Second, such programs increase "man-to-man" contacts and contribute to the development of personal loyalties between individuals of various countries. These "crisscross" loyalties can contribute to international solidarity and make it more difficult to obtain popular support for international conflicts with countries with which such contacts have been rich.

Third, international service can contribute to the creation of a more sympathetic attitude toward our country and way of life, which would reduce the chances of aggressive action against us. The potential attacker would have clear evidence of our nonaggressive intentions; and the fear of alienating "world opinion" would make him hesitate before invading. Moreover, in the event of a crisis our plight would receive more attention, publicity, sympathy, and concrete aid than might otherwise have been possible.

Fourth, carrying out an international service program will make our own country better prepared to meet crises. It will help to create a positive sense of purpose and mission comparable to that which often accompanies military efforts, but without certain of the disadvantages of such measures; and in giving our citizens experience in working cooperatively in a common altruistic cause, it will enhance their ability to practice this cooperation in other tasks in times of crisis.

Fifth, knowledge of international service conveyed to the troops and population of a potential enemy might reduce their motivation to act aggressively against us, cause them to carry out repressive orders inefficiently,

and increase the chances of their deserting and mutinying in support of freedom.

### **Areas of Service**

A broad program of international service would include a multitude of tasks. Emergency help in cases of natural catastrophes and famines<sup>3</sup> and aid to refugees<sup>4</sup> would be vital. Technical help adapted to the needs and cultures of the countries desiring it is an obvious means of international service. Another is various types of educational aid, particularly assistance to students who wish to study in other parts of the world.

A service of a somewhat different type is to provide independent observers and investigators to assist in the study and resolution of specific international conflicts and perhaps of certain national political crises such as civil wars. This service would include operational research aimed at contributing to the solution of such conflicts and more general and fundamental research on conflict, war, and nonmilitary means of conducting and resolving conflicts—in short, on much of the nonmilitary defense program advocated here. The results of such research should be widely distributed. Other countries wishing to adopt a similar type of defense policy could be provided with special defense liaison officers, lecturers, and consultants to assist in the adoption of such a program.

Such a program of international service would, of course, require considerable resources, which I am convinced should be provided mainly through the government budget. There would also be a large demand for manpower, including both untrained workers and specialists. In addition to a highly trained long-term technical staff, persons serving for one or two years would play an important role. Volunteers alone could not fill the demand. Manpower should therefore be supplied by conscription from the country's youth of both sexes. This form of service ought to be a full or partial alternative to the usual military conscription or alternative service for conscientious objectors. Essential training would include language skills as well as knowledge and techniques required for particular jobs.

It would be by far preferable if such a service corps could be organized on an international basis and made available to the United Nations or some other international body. The experience of several countries' corps mem-

bers working together—the Americans and Russians cooperating in building a steel plant in India—would contribute to closer understanding and develop the ability to cooperate in service projects. This might make resolution of other issues between such countries less difficult.

A considerable part of such a service program could be carried out through existing organizations that already operate along the same general lines, such as the Red Cross, Save the Children, and War on Want. Other services could be conducted through national branches of international organizations; others, through contributions of men and resources to such international organizations as UNESCO, UNICEF, WHO, and FAO.

### Improving Our Own Society

Another aim of a nonmilitary defense program would be to make our own society worthier of defense and more capable of being defended by nonmilitary means. It must be frankly admitted that there are many aspects of our own society and others that many people would not wish to defend, and would certainly not make great sacrifices to defend. The victims of racial segregation and discrimination, for example, and those subjected to economic and political oppression, will not be eager to defend their societies against foreign aggressors who may claim to be “liberators.” Neither will the more idealistic members of such societies, even though not victims of such policies, be eager to sacrifice heavily in the defense of such conditions.

At the time of Hitler's annexation of Austria, for example, Schuschnigg had already established a one-party system, had built concentration camps on the German model, had abolished individual liberties, and had carried the principle of authoritarianism to its ultimate implication. There remained in Austria little basis for ideological resistance to Hitler. Similar although perhaps less severe conditions existed in certain other European countries, such as Poland and Yugoslavia; apart from the warnings of psychological warfare, there was in many cases no basis for universal and determined resistance to Hitler. Societal housecleaning is a prerequisite for effective nonmilitary defense.

Another necessary improvement is the decentralization of decision-making power. Citizens must be more accustomed to making decisions individually and in small groups and less dependent upon the government or



leaders of organizations. Admittedly, technical developments seem to have made inevitable a certain amount of centralization. However, if the opportunity for local initiative and responsibility is destroyed rather than actively cultivated and nurtured, then the ability of citizens to resist encroachments on their freedom will be disastrously affected. What is needed is a general strengthening of those institutions in our society that can train the individual to make decisions in times of crisis in the absence of the top governmental hierarchy and of all other major organizations. This would prevent demoralization if the state apparatus were seized by opponents of liberty and yes-men placed in key positions in all major organizations.

### **Nonmilitary Resistance**

All of the above components of a nonmilitary defense policy will contribute to the nation's ability to cope with crises; and at the same time they will enrich and improve our own society. They will also reduce the chances of invasion and occupation. It is nevertheless necessary that we have an adequate program for dealing with the latter eventuality, for with modern weapons it will always be possible to invade and occupy territories for shorter or longer intervals. Unhappily, the customary identification of military defeat with total defeat prevents discussion at government levels of problems of occupation and suppression, such discussion being associated with defeatism or lack of "defense-mindedness." The opposite is actually nearer the truth; those who identify military defeat with total defeat neglect a sector of defense of vital importance.

Perhaps the most positive way in which a small country like Norway could contribute to the prevention of a nuclear war would be to say *No, thank you* to an offer from a friendly superstate to stop an invasion of her territory by using nuclear weapons. Such a policy is, however, irresponsible so long as the populace is no better trained to meet the problems of occupation than it was in 1940. As I have indicated previously, reliance on military methods of defense cannot be diminished until other means of defense are generally recognized as equally effective. It is therefore my proposal that, for the present, side by side with conventional military preparations there be instituted a program of preparation for nonmilitary resistance in case of invasion. As popular confidence in such measures gradually grew, it would

be possible and desirable to reduce the military preparations and to rely in greater degree on nonmilitary training.

In the event of invasion by an army possessing nuclear weapons, relatively little could be done by military means to prevent the invader's disbanding major organizations and eliminating known leaders of opposition. Our citizens must understand that this military failure does not mean defeat; it does mean that the struggle is entering a new phase of more direct confrontation of human forces. The struggle ought not to be waged on a front where the opponent already has overwhelming superiority. Rather, it must be waged by nonmilitary weapons and by techniques that can continue to function regardless of the invader's control of communications, ammunition, and supplies, and despite his power of mass deportations. Also, there is likely to be an inverse relationship between the degrees of military and nonmilitary preparedness for defense, for precisely those humanitarian values that give rise to spontaneous loyalty and affection for a way of life are likely to become undermined to the extent that military preparedness is maximized.

### Techniques of Resistance

It must be kept in mind that our ultimate goal is to preserve our way of life. Hence, even under enemy occupation certain fundamental principles must be upheld, regardless of what the opponent does and regardless of the cost. *No human being is to be sacrificed by others to achieve an end; each person must be something of a goal in himself. No goal can justify destruction of respect for truth,<sup>5</sup> and under no circumstances may any human being be mistreated or tortured.*

It is important to distinguish this kind of a program from psychological warfare, which may resort to all types of threats and deception in verbal propaganda. It must also be distinguished from a program of general noncooperation, a program focused on the invaders. The weakness of a policy of general nonviolent resistance is that it should not be upheld at all costs; if repression gradually stiffens, it is impossible to continue defending, for example, the major organizations of a democratic government. Automatic refusal to cooperate with the invaders in food distribution may result in a famine. Self-inflicted hardships for nonessential goals cannot easily be asked or expected of a populace except in critical periods of very short duration.

Techniques of resistance that would serve to defend the above principles could include many types of noncooperation: strikes, boycotts, civil disobedience, refusal to operate and participate in the existing governmental agencies and other major organizations once they had been taken over by the enemy, and refusal to provide him with labor, transportation, information, and so on.<sup>6</sup> Wherever the invader sought to extend his power by forcing the inhabitants to violate the basic principles, he should be met with those forms of nonviolent resistance best adapted to each case. Let there be no pretense that the enemy would not retaliate and inflict repression. This, however, is no argument against nonmilitary resistance, for it is at least as true of military means. The question is *how* to do the job, not whether it should be carried out.

At the same time, a large variety of efforts could be undertaken to encourage the occupying soldiers not to carry out measures that must be resisted by the inhabitants. These efforts would, of course, include no acts of terrorism against the soldiers themselves. Rather, by means of posters, underground newspapers, secret radio broadcasts, acts of resistance and defiance, and personal contact where possible, the soldiers could be convinced of the pervasive and tenacious nature of the resistance offered. The history of recent occupations—for example, that of Norway—shows that it is possible for occupying soldiers and even high officials to be actively sympathetic with the occupied populace, to be lax or even negligent in carrying out orders, and to pass on important information to the underground. While maintaining the noncooperation and defiance, the resistance should be aimed at maximizing the amount and degree of this support from the occupying forces.

It is vital in such resistance movements for people to be willing and able to continue their customary ways of life in small units when the public life of a democracy is absent. During the occupation of Norway, for example, the teachers successfully prevented the schools' being used to spread false information in the interest of the invaders. Further, by mass nonviolent noncooperation they openly refused to participate in the teachers' organization that Quisling was creating as part of the foundation of his corporate state. When the schools were closed, they taught in homes. The price was months in concentration camps for hundreds, but both the organization and the corporate state were stillborn and the schools remained free of control.

During the German occupation of Poland, the pressure on school-teachers was in part so heavy that direct resistance at the schools and within the school organizations was impossible, but teaching was conducted "privately" in tiny groups, a form of *microresistance*.<sup>7</sup> In Norway, repression and brutality did not reach such a high pitch that all large organizations, "legal" or "illegal," were destroyed, but given another five years of occupation, under steadily worsening conditions, the resistance might have disintegrated into microresistance. This would also happen in the case of large-scale deportations. If the citizenry were thoroughly prepared, however, even microresistance could be a weapon far more powerful than any military means used against it.

### Research

Military defense methods have been carefully studied for centuries. Non-military methods cannot be improvised. In fact, we do need study and clarification of nonmilitary methods, and training and preparation in the use of such methods in specific situations. Moreover, we need it now.

We have already obtained sufficient practical experience to indicate that, in the light of the obvious limitations of possible alternatives, such nonviolent resistance constitutes the best available means for combating an occupation. There has, on the other hand, been little academic study of these phenomena; our knowledge about them, as compared to techniques of war, for example, is extremely limited. Therefore, a first requirement is the initiation of a large-scale program of fundamental research on nonviolent resistance. In addition to this basic research, specific attention must be paid to the application of such methods against totalitarian opponents. This must include study of totalitarian systems and of the experiences of previously occupied countries under such regimes. Much of the research could be conducted through existing institutes for social research, defense academies, and universities, although it might also be desirable to establish a special institute or academy for coordination of such projects. This program of study cannot wait until a nonmilitary defense program is adopted; it could begin immediately. It will also be necessary to train and develop a core of specialists in such methods: theoreticians and strategists coming from the military, from a variety of academic disciplines such as sociology,

political science, and psychology, and from among those devoted to nonviolent philosophies.

### **Conclusion**

These, then, are certain aspects of a nonmilitary defense program whose primary purpose is to preserve and extend liberty and to prevent invasion and expansion of suppressive systems. It is a program also capable of dealing with invasion and suppression.

We must recognize, of course, that such a program of nonmilitary resistance depends on popular acceptance of the probability that the invader will inflict severe repression, torture, and executions, and that the nation will neither be in a position to retaliate in kind nor be willing to do so. Only such a program, however, could keep alive and active both those principles that furnish the ultimate basis of freedom and the willingness to fight for freedom.

Implementation of a nonmilitary defense policy could be cumbersome, it is true. Such a defense policy involves a reorganization of the existing defense department and a broadening of the tasks of the department of foreign affairs. It is possible that the two might effectively be combined under one or the other auspices, or a new arrangement created. The cost of a nonmilitary program would be considerable, and at the start it might have to be an addition to the current military budget.

This is admittedly not a program that will be adopted in a day, but whereas initial adoption of the policy may be difficult, once the program is worked out in fuller detail and put into practice its adoption by many countries will be facilitated and accelerated. As more and more countries adopt such a program, the dangers of war will be further reduced as greater pressure is exerted for the abandonment of military aggression. In short, it may well be that the only direct means to achieve the fundamental social change required for the permanent prevention of war is the widespread and immediate implementation of the policies of nonmilitary defense.

## Can Violence Lead to Nonviolence? Gandhi's Point of View

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Gandhi called himself an experimenter. His experiment consisted in systematically developing and consistently following the voice of conscience—following it completely and relentlessly, and using no other guideline, religious or otherwise. He spoke in these terms since it was the truth—or truthfulness—value of the voice of conscience that was important to him. The religious element enters with his identification of God with truth and justice. However, he substituted the formula “Truth is God” for the formula “God is truth.” In doing so, he kept his concept of truth but changed his concept of God.

Because he was a *karmayogi*, one who seeks the highest goals through action, it became inevitable for him to take sides in the most violent conflicts of his times. With the standard of truth as his master, it was obvious that he had to fight deprivation, injustice, hypocrisy, and untruth—and equally obvious that this would soon lead him to take part in political battles. The corollary of the identification of God with truth is that living a religious life is equivalent to pursuing truth. The worshiper of God will inevitably be involved in group conflicts.

I could not be leading a religious life unless I identified myself with the whole of mankind, and that I could not do unless I took part in politics. The whole gamut of man's activities today constitutes an indivisible whole. You cannot

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## THE PHILOSOPHY OF PEACE AND GANDHIAN ETHICS

divide social, economic, political, and purely religious work into watertight compartments.

(Gandhi, *Harijan*, December 24, 1938, cited in Prabhu and Rao 1946: 81)

To see the universal and all-pervading Spirit of Truth face to face one must be able to love the meanest of creatures as oneself. And a man who aspires after that cannot afford to keep out of any field of life. That is why my devotion to Truth has drawn me into the field of politics.

(Gandhi 1956: 504)

One is justified in calling Gandhi a man of peace and goodwill, but one is also justified in calling him the greatest of agitators—he roused millions of Indians to battle. The peasants were indifferent and had resigned themselves to suppression. It had not occurred to them to take part in any conflict until Gandhi called forth demands for justice, and, more fundamentally, demands for humane conditions of existence. He stimulated them to individual indignation at their condition and at the humiliations they were suffering.

The representatives of the Indian empire very clearly foresaw how the standard of unconditional truth, combined with the standard of action, had to create conflict. They were right in supposing that Gandhi's activity would create unrest, disorder, and disobedience. The exchange between the Hunter Committee's counsel and the accused Gandhi, prior to one of his many terms in prison, is famous:

*Counsel:* However honestly a man may strive in his search for truth, his notions of truth may be different from the notions of others. Who then is to determine the truth?

*Accused:* The individual himself would determine that.

*Counsel:* Different individuals would have different views as to truth. Would that not lead to confusion?

*Accused:* I do not think so.

(Tendulkar 1952: 342)

Of course truth leads to conflict; but it clarifies, it does not confuse. A crucial point, however, is the question of *how* the battle between groups is to be carried out when both sides are relentlessly pursuing the voice of conscience.

It is commonly held that Gandhi regarded as self-evident that the voice of conscience should dictate the nonviolent form of battle as the only

effective and the only justifiable one. This is a fundamental misunderstanding. He fully realized that many will conclude, after an honest and profound appraisal of themselves and the situation, that the use of violence is the only effective and the only right course of action. Insofar as the politicians in India held this opinion, it was their duty, according to Gandhi, to arm. He criticized them for shrinking from openly accepting a program of armament even though they obviously had no faith in the methods of nonviolence. The politicians ought to have provided training in the use of arms if they lacked belief in nonviolence.

Gandhi forced a decision on the Congress Party politicians in 1934 when he proposed the replacement of their catchphrase for action "peacefully and legally" with "truthfully and nonviolently." The proposal was not accepted and Gandhi left Indian party politics.

The methods of nonviolence are rightly associated with the name of Gandhi. His originality in this field is unique, although some of his methods have been rediscovered independently of him. Martin Luther King, Jr., is one of the outstanding names in this connection. It is often forgotten, however, that the standards of nonviolent conduct and intention are for Gandhi subservient to another standard, the highest standard in his system. He wrote:

If it is possible for the human tongue to give the fullest description of God, I have come to the conclusion that for myself, God is Truth. But two years ago I went a step further and said that Truth is God.

(*Young India*, December 31, 1931, cited in Prabhu and Rao 1946: 29)

Again, in a discussion with a friend he made this point:

"Nevertheless, your emphasis is always on *ahimsā*. You have made propagation of non-violence the mission of your life," argued the friend, still unwilling to concede the point. "There again you are wrong," answered Gandhiji. "*Ahimsā* is not the goal. Truth is the goal. But we have no means of realizing truth in human relationships except through the practice of *ahimsā*. . . ."

(Gandhi 1949: 104–05)

Consequently, the doctrine of nonviolence cannot, according to Gandhi, be evolved in isolation from a higher goal, which is beyond the distinction between violence and nonviolence.



The doctrine of nonviolence rises from Gandhi's personal conviction of a fundamental equality in the destiny of all men, and of their equal right to self-expression. His personal identification with all men, however, equates injury to others with injury to oneself. In group conflicts, one gains nothing by injuring others. No fully justifiable goal may be reached by means that include planned or accidental injury to others in such conflicts. Between one's own self-expression and the self-expression of others there is no sharp boundary.

Moreover, the activist program follows from this identification; it does not help to retire from existing battles in order to avoid committing violence oneself. Violence is an evil, whether it is one's own or that of another, and must be fought. Therefore, one must seek the root of the conflict, must go to where violence is beginning or has begun.

Gandhi distinguishes between condemnation of an act and condemnation of the person who has carried out the act. Acts of violence are always wrong and evil, but this does not justify us in immediately condemning the person who acts violently. A person who in a good cause can see only the alternatives of cowardly reticence and violence does right in acting violently. That he should see only these alternatives in spite of intensive analysis of himself and study of the situation discloses a lack of insight or experience, or perhaps a lack of opportunity to train himself in nonviolence because he was brought up in an environment in which it was thought good to be shielded from raw reality. Unless one takes part in agonizing conflicts, the capacity for effective nonviolence cannot, of course, be developed.

Gandhi understood what is now commonly called counterviolence, particularly when the opponent is physically utterly superior. In line with this he expressed understanding of Norway's war against Hitler's Germany. Germany's superiority in that case made violence something akin to a symbolic act—an unconditional *no* to injustice. To small powers that are attacked, Gandhi did not say that they *ought* to offer nonviolent resistance but that they *may*, and further, that nonviolence is in the long run the only thing that can reduce organized violence and suppression.<sup>1</sup>

When Gandhi left South Africa and started his work in India, he soon realized that the Indian masses could not immediately be mobilized in a political struggle for freedom.

A starving man thinks first of satisfying his hunger before anything else. He will sell his liberty and all for the sake of getting a morsel of food. Such is the position of millions of the people of India. For them liberty, God and all such words are merely letters put together without the slightest meaning.

(*Young India*, March 18, 1926, cited in Fischer 1962: 223)

Continuous hunger produces apathy. The apathy in India was so all-embracing that it hindered every constructive effort to improve the conditions of life. The situation seemed hopeless: apathy and passivity beget self-contempt, a feeling of being totally useless or superfluous, a feeling of infinite impotence, and hence a lack of personal identity.

It was impossible for Gandhi to make any substantial and immediate change in the food situation. Thus, he had to increase the self-respect of each individual, to increase the belief that "I am something worth caring for," despite the absence of such a change. One of his brilliant schemes to this end was the hand-spinning and hand-weaving program, the Khadi movement. Gandhi said of this:

If we want to give these people a sense of freedom we shall have to provide them with work which they can easily do in their desolate homes. This can only be done by the spinning wheel. And when they have become self-reliant and are able to support themselves we are in a position to talk to them about freedom, about [the] Congress [Party], etc. Those, therefore, who bring them work and means of getting a crust of bread will be their deliverers and will be also the people who will make them hunger for liberty.

(Ibid.)

Gandhi's plan was that every family in India's half a million villages should take part in the Khadi movement by spinning or weaving. Most of the villagers were out of work for most of the year. During this time they were idle, without aim or purpose, and more often than not suffering from some disease. That Indians should henceforth be able to provide for some of their own basic needs became in itself a challenge to the government, and an act of self-assertion on the part of each Indian against his seemingly all-powerful rulers.

The Khadi movement served also to knit the Indian nation closer together. Gandhi prevented the loom from becoming a symbol of poverty by, among other things, passing a resolution that the membership dues of the Congress Party should be two thousand yards of yarn spun by the member

himself. Everyone was on the same footing, and this could only increase the self-respect of the poor in relation to the richer classes.

By means of the Khadi movement and other brilliantly conceived schemes, Gandhi succeeded in bringing into being an elementary minimum of self-respect and feeling of worth and dignity in millions of Indians. This, more than anything else, was his ethical and political achievement. Gandhi then tried to utilize this minimum to get people to join constructive projects on a large scale. As a result of participation in such projects, the emerging self-respect grew into a clear awareness of the right not only to survive but to live a worthy life, and thus of the duty to take part in the political-freedom movement.

According to Gandhi the intimate connection between economy and personal identity necessitated the carrying out of extensive decentralization and the elimination of big cities. In his *Constructive Programme* (1941), Gandhi envisaged that the 700,000 villages in India, instead of being exploited and destroyed by half a dozen cities in India and Great Britain, would be able largely to support themselves and serve voluntarily the cities of India, and even those of the outside world, so far as this was mutually beneficial. This, he said, would require a revolutionary change in the mentality of the masses. The nonviolent way, although easy in many respects, was very difficult in others. It meant touching the life of each Indian, making him feel possessed of a force hidden within him, and making him proud of his identity with every other Indian.

The essential point is this, that Gandhi acknowledged self-respect as an absolutely necessary precondition for nonviolent action in group conflicts. When it becomes obvious that the self-respect is insufficient, the struggle for independence must change its emphasis to measures aimed at increasing self-respect. Indignation and angry words are signs of insufficient self-respect, caused by powerlessness and a lack of belief in one's ability to convince the opponent.<sup>2</sup>

I give the following as an example of how Gandhi reacted when confronted with instances of abject anger.

In 1921, Gandhi organized the largest nonviolent campaign ever carried out. According to the plan, a constant escalation was to take place, month after month. The decisive phase was planned to begin on February 1, 1922, with collective lawbreaking. In Chauri Chaura, though, the mob

killed twenty-two policemen, cut them up, and burned them, in desperate anger and counterviolence. Gandhi immediately called off the entire campaign, even though it now embraced more than one million men. Only the constructive program was continued, that is, the hand-spinning, the religious tolerance movement, and the help to the untouchables. Many politicians were intensely annoyed, and the multitudes despaired, over Gandhi's reaction.

His motives were clear enough, however. What was important to him was that the conditions for extensive nonviolence involving mass participation were not present. The requirements of self-respect and human dignity were not satisfied. Consequently, a retreat from the political to the more fundamental ethical and humanitarian level was necessary. This entailed intensifying the "constructive" measures. The episode of Chauri Chaura illuminates the importance that Gandhi attached to the preparations for nonviolent action and how clear it was to him that if events disclosed decisive flaws in the preparations, the action had to be called off temporarily or else considerable de-escalation had to take place.

We can find the same pattern in his reaction to violence and counterviolence in Amritsar in 1919. Again, he found that self-respect had given way, and participants had fled or used violence. Gandhi called off the action. He recognized his "Himalayan mistake." The masses had not been sufficiently mature for civil disobedience, a fact that he, as leader, ought to have understood. Collective excitement is a difficult factor to estimate, but it is primarily the sheer number of people involved in mass movements that makes consistent nonviolence difficult. If even one in a thousand is actively destructive, he may be followed by ten others in one violent act that spoils the entire campaign. Of course, encouraging events took place as well. In 1930, on several occasions the multitude stayed where it was when the armed police attacked it, with the result that the police refused to continue the attack (see Bondurant 1958: 96). This was exactly the kind of self-respect and self-restraint on the part of the demonstrators that, according to Gandhi, is necessary for the carrying out of an effective nonviolent liberation struggle.

I will now try to show how Gandhi's ideas on self-respect, and the conviction of personal identity and worth, are relevant today.

The last ten years have seen a lack of belief in nonviolent action within

several liberation movements. Violence both in intention and in action has become fashionable.<sup>3</sup> The recognition of violence today springs partly from the conviction that only a small minority are able to remain nonviolent in battle and that brutal opponents are impressed by nothing except violence and are not at all ashamed of assaulting the defenseless.

From close examination of the examples and teachings of famous violence-promoting black leaders, it seems clear to me that Martin Luther King, Jr., and the other eminent advocates of nonviolence in the 1950s did not quite succeed in formulating, much less in solving, the problem of self-respect. Critics of King's strict nonviolence emphasize that a man who is without belief in himself can desist from counterviolence only by cowardice. His reflexes will require him to answer violence with violence. The only question for him is, Do I dare to?

In explaining the lack of self-respect among blacks in the United States, we must consider several factors, social, mental, and religious.

The religious traditions in the Indian societies (including the Muslim) made it easier for Gandhi to appeal to religious and cultural standards than it has been for Martin Luther King, for example, to appeal to Christian standards in addressing the black population of America's secularized industrial society. Furthermore, there has been no unifying, positive, concrete liberation program in the United States, nor any constructive plan such as formed the basis of the Khadi movement in India. This may partly account for the absence of a satisfactory solution to the problem of self-respect in America, and for the rare occurrence of conditions enabling the use of positive, aggressive nonviolence on a large scale.

The difference between the situations in America and India is not, however, that the opponents in India were less brutal. Gandhi's main field was in the area of religious conflicts. When he lost control toward the end of the 1940s, more than a million people were killed in communal riots all over India. Hatred and white-hot anger were features of the situation in which Gandhi and his helpers exercised their power, and it was not "the kind Englishmen" who put his nonviolence to the test.<sup>4</sup>

It is natural to interpret a considerable part of today's direct exhortations to counterviolence, that is, to meet violence with violence, as an attempt to give the apathetic, self-deprecating individual a chance to feel that he *is* something, is someone to whom the opponent must pay atten-

tion. It is probably this that Frantz Fanon has in mind (in his saner moments) when he emphasizes "the liberating effect of violence" upon the oppressed and underprivileged. He says:

At the level of individuals violence is a cleansing force. It frees the native from his inferiority complex and from his despair and inaction; it makes him fearless and restores his self-respect.

(Fanon 1967: 35)

It is worth noting that Fanon mentions the "slave soul" in the same context. There are, in fact, reports from the United States indicating that violence by blacks against the police has had an intensely stimulating effect upon the black population. All have felt themselves a little bigger, a little more courageous. A more straightforward, natural mode of speech is being used in front of the whites. A new phenomenon on the university square at Berkeley (1968) is the sight of blacks cursing whites, who stand in a circle about them listening solemnly and obviously on the defensive. This helps, of course, but only in the short run: it solves no problems.

When the use of counterviolence is argued, the typical situation put forward is that of a colored person assaulted by whites. The black leader Stokeley Carmichael usually speaks of assaults by white mobs and nocturnal terrorists. In terms of the group conflict, however, these are relatively unimportant situations. To Carmichael, and also to others who criticize Martin Luther King, it seems clear that civil rights and a comprehensive participation in the decision process cannot be obtained by fistfighting or individual use of weapons, but it is equally clear to them that these cannot be attained by passivity in the face of assault. Of this, Carmichael and Hamilton say, in their book *Black Power* (1967), that as leaders they increased the frustration of the blacks boiling with anger at the lack of action taken after they had seen Martin Luther King take a rap, and small black girls killed by a bomb in a church, since the leaders had nothing concrete to offer them. Such frustration is understandable considering the feeling of paralysis and the lack of a constructive program. These blacks had nothing to do except go out in the street and be hit once again. The absence of a continuous nonviolent struggle had its effects. To be struck down in a direct battle does not give rise to the frustration Carmichael describes.

From the point of view I have indicated, it is misleading to say that in

the United States nonviolent methods have largely been given up in favor of violent methods. What has happened during the last few years may be interpreted rather as an attempt to create the necessary conditions for a future non-violent constructive campaign on a mass basis. In India, Gandhi succeeded in bringing about the conditions required for nonviolent revolution; in other societies, it seems, these must be brought about partly by violent methods and incidents. It is quite clear, however, even from the statements of extremists such as the Black Panther leader Huey Newton, that counterviolence must not be regarded as a way of solving the major problems of liberation. Violence is conceived of only as a defensive and preliminary measure, a means of counteracting fear, panic, and the feeling of inferiority that is absolutely destructive in any effective organization of campaigns toward liberation.

The latest reports from the United States indicate that the blacks are turning their backs on spontaneous riots and destruction, and are more and more carrying on the struggle with positive action. Cooperation, especially economic cooperation, is popular. Riots and counterviolence may have had their importance, their regrettable function, in an environment in which a kind of primitive self-respect and the use of violence are very close to each other. The use of violence may perhaps have contributed in preparing the ground for the use of more effective means.

The aggressive ideologists within the black liberation movement today find that their situation is similar to that of the Indians insofar as in both cases it is a struggle against colonialism and in both cases it is a matter of revolution. Carmichael and Hamilton conclude their book *Black Power* with the pronouncement that there is a rapidly growing group of blacks who are determined to "T.C.B." (take care of business) regardless of consequences, and who will not be stopped in their vigorous efforts to attain dignity, to grasp their share of power, and to exercise the right to shape their own destiny, here and now, no matter what means may be necessary.

The point to which I am here trying to direct attention is this: the violence that seems to be recommended or tolerated by the leaders of opinion is primarily a means of gaining self-respect and thence the foundation of dignity. "T.C.B." is of course not to be achieved by riots and violence. On the contrary, the blacks were often the hardest hit, economically. Mastery of one's own destiny is only to be achieved by positive measures based on inner strength. Brute force can help only at the very outset. Gandhi envisaged, as

the ultimate measure, forming institutions parallel to those of the oppressors, that is, being self-sufficient on the largest possible scale. To form such institutions, for example, one's own schools, courts, and cooperative societies, positive not negative means are necessary. Blind anger does not further this cause.

Gandhi's campaigns had a character other than what is today commonly called nonviolent. Briefly, we can say that Gandhi's demonstrations were usually demonstrations *for* something rather than against: his agitation was *for* something; his strikes were in the same way constructive; and even his boycotts and civil disobedience were *for*, not against. A campaign *A* was not an attempt to force the situation *B*; rather, the campaign itself consisted in bringing about the situation *B*. It follows that Gandhi's actions were usually directed toward something visible, something concrete and well defined. At the same time, specific aims were included as a small part of the large general aim, the inner and outer liberation.

Many people will say that since Gandhi had as opponents not primitive brutes but the kind and decent Englishmen, his methods cannot be carried over to the racial strife of our time, the wars in the colonies, and student insurrection against police atrocities. The belief that Gandhi dealt primarily with the English stems from the fact that most of the world in the 1920s and 1930s was politically and economically interested in Britain and its empire.<sup>5</sup> There was little interest in the violent strife among India's cultural constituent societies—among Muslims, Hindus, and Sikhs. Here a white-hot anger raged and, as I have already mentioned, when Gandhi let go the reins toward the end of the 1940s, more than a million people died in the riots among the different communities. Gandhi and his supporters achieved their most shining successes in just those campaigns that were concerned with the elimination of inner strife. Gandhi had good reason to emphasize to Nehru and the more nationalistic political leaders that liberation (*swaraj*) had primarily to mean liberation from the conditions that led to oppression and violence on the inner front. He wished the politicians to concentrate on those aspects rather than on relations with England.

During campaigns, one consequently anticipated and realized something of the future. One taught the opponent how one wanted the society of the future to be. Negative campaigns—those that occurred—were sec-



ondary, and usually in a comprehensible and obvious relationship to the positive aims. They were frequently protests caused by the reactions of the authorities to the positive campaigns, or alternatives to discontinued or blocked positive actions. The fact that the main emphasis was placed on positive, concrete campaigns meant that when the nonviolent freedom fighter met the enemy face-to-face, the former was in the act of *doing* something, or carrying out or expressing something he felt to be indisputably justified. In such a case, the opponent, if he adopts countermeasures, violent or nonviolent, must act so as to counter the positive aim of the nonviolent freedom fighter. For example, the untouchables entered temples and prayed (1924–25 Vykom *satyāgraha*),<sup>6</sup> or the poor prepared salt from seawater at the coast. The untouchables did not demonstrate outside the priests' dwellings, nor did the poor march in processions carrying posters labeled "Down with the salt tax."

The prevailing interpretation of the commandment to turn the other cheek illustrates the difference between positive and negative nonviolence. It is not particularly difficult to train police to strike down peaceful but negative demonstrators. Passivity under attack makes it difficult for reasonably decent men to beat and abuse people, but if the police are recruited from the ignorant and the authoritarian, or are indoctrinated with the idea that the demonstrations are not advocating any good cause, the element of decency may be eliminated. Even in Norway and Sweden we have seen examples of this. Consequently, the good or just cause must show itself during the confrontation itself, whether this is with the police or with others sent to receive the nonviolent freedom fighters with violence and suppression. One might say that the realization of the positive program so to speak "under the noses of the adversaries" entails the realization of the aims set by the campaigns.

[The] Constructive Programme is the truthful and non-violent way of winning Poorna Swaraj [complete independence].

(Gandhi 1945: iii)

I have said and I repeat, that there is no swaraj for the masses except through Khadi and village-handicraft, for there is no non-violent disobedience without a continuous constructive effort. For a living, continuous mass contact is impossible without a constructive programme, that requires almost daily contact between the (non-violent) workers and the masses.

(*Harijan*, March 23, 1940)

The constructive programme had to be concrete and well defined so that the majority of the members of the society in which the advocates of *satyāgraha* worked could realize that it was to the benefit of all.

The actions during the campaigns themselves were given a positive form, so that the adversary who attacked, using violence, had to do so while the demonstrators were clearly showing what they wanted—for example, while they were entering the temples, or while they were extracting salt for their meals.

During extensive positive campaigns such as the founding of one's own schools, universities, courts of law, and so on, the attackers must destroy something that has an obvious purpose and clearly shows the intentions of the nonviolent fighters. According to Gandhi, this is impossible in a negative campaign since one only shows what one is against. What one is usually against is something well established, something that most people regard as more or less unalterable. To recognize an alternative clearly requires imagination, and we cannot expect an adversary to be in an imaginative mood if the emphasis is on annoying him.

Consequently, the decreasing adherence to so-called nonviolent methods need not be attributed to disappointingly insubstantial results from positive nonviolent actions based on a constructive program. Wherever such actions have been carried through, the result seems to have been remarkably great in comparison with the effort expended. However, the work of Martin Luther King and others, in the spirit of Gandhi, has revealed the importance of learning more about how the prerequisites for the participation of the masses in nonviolent action may be gradually fulfilled.

To sum up, we may say that the reaction against so-called nonviolence is a healthy one insofar as it is a reaction against *passive* resistance and *negative* campaigns. This reaction is likely to lead in the long run to increased acknowledgment and realization of Gandhi's ideas, which clearly point to the importance of the active and positive elements in campaigns. May the centenary celebration contribute to the strengthening of these ideas all over the world!

## II

### Consequences of an Absolute No to Nuclear War

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In this essay I do not write as a kind of politician or adviser to politicians, but as a plain member of humanity—except for my special obligations owing to my education and other privileges. If I were to advise a member of a government, I would first consider his or her position, the local power structure, and the narrowness of alternatives for that particular person at the moment. Why is it the duty of a philosopher to speak up on nuclear arms and the future of life, not only human life but, equally important, nonhuman life? A philosopher, by training, has value priorities and maximally wide perspectives in time and space—a total view, however tentative and imperfect. Philosophy is a search for wisdom, the integration of reflection and action, not merely a search for knowledge. A philosopher is not a logician, an epistemologist, a political philosopher. Specialization leads nowhere. In our mammoth industrial societies, a philosopher must fight for the reestablishment of intrinsic, ultimate values in life and against the dominance of the merely instrumental. Increasing militarization is one aspect of the irrational belief that instruments and the pursuit of “power over” can save us in the long run. To threaten with nuclear gadgets is to threaten Mother Earth and is inconsistent with every wide perspective.

No philosophy of great standing gives priority to the accumulation of material possessions, nor does any favor “power over” when compared with “power to,” nor means over ends, nor nonultimate ends over ultimate ends. Philosophers have advocated as part of wisdom a life simple in means and

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rich in the enjoyment of intrinsic values—values that are values in themselves, not mainly means to a further end. No decision, no policy, no technology is rational if it is not conducive to fundamental, ultimate ends and values. In what follows I take this as axiomatic.

Wise proposals are often characterized as unrealistic because people, while acknowledging their wisdom, are unable to act on them. Such a lack of personal integration is a product of the culture in which we live: our industrial societies do not foster our ability to act from our deepest feelings and broadest knowledge.

I assume, however, that individuals, given the opportunity to develop normally in an environment not degraded in obvious ways, are (sometimes) able to recognize wise decisions and act on them. Further, I assume that we are consciously able to change trends—political, social, and general cultural—at least to some extent. There are reasons to doubt this, but to reject this presupposition is self-defeating and pessimistic.<sup>1</sup> (The “we” I refer to are responsible citizens of nations that today possess nuclear weapons and those who live in industrialized states in general.)

What kind of policy could eliminate the roots (both causes and motives) of nuclear threats?

### The Nature of the Current Nuclear Peril

Hostility between the two main nuclear powers has reached a high degree of intensity; nuclear war is a threatening possibility. It may start with a limited exchange of bombs and could stop at that, but it is just as likely to explode into a major nuclear exchange. The short- and long-range consequences of such an explosion would affect not only the belligerent countries, but humankind and living conditions on the planet in general. Such a war could not possibly serve fundamental, ultimate values of life. The situation is of vast planetary concern.<sup>2</sup>

No political objective, no goal such as “making the world safe for democracy and freedom” or “making the world safe for communism,” could be achieved through a major nuclear war. Moreover, since our planet is not the property of the owners of the bombs, nor of mankind in general, we have *no right* to threaten with bombs.

The nuclear arms of a nation do not deter if an enemy believes that the

nation will under no circumstances use them. It must always be credible that under certain circumstances the nation will use nuclear weapons within limits and go all out in their use in extremis. For the sake of credibility every nation must resort to clear threats, and increasing threats must be met with increasing threats.

The moral permissibility of ultimate full-scale retaliation cannot be upheld. The old way of defending the moral soundness of retaliation was to refer to the principle of just retribution: those responsible for the disaster had to be punished. The chance, though, of killing those really responsible for a nuclear disaster would be slim. Millions of nonbelligerents and innumerable other beings would suffer, whereas people at the top of the power pyramids would likely escape.

The danger posed by nuclear weapons would not be removed even through negotiated disarmament. If nuclear disarmament were realized through international treaties, threats to rearm would probably replace the current threats, and the technological race would then focus on means to rapid nuclear rearmament. Therefore, the threat of nuclear war would not decrease substantially as a consequence of nuclear disarmament among mutually hostile nations. Something more basic than nuclear disarmament must occur, something that has to do with nuclear cultures as *a whole*.

Until recently, the armaments of various nations could be roughly compared because rough quantification was possible. Now, with many different kinds of weapons, a great variety of sophisticated inventions related to speed of delivery, and other factors of major importance, even a rough comparison between the United States and the USSR is difficult. Consequently, the governments are able to make increasingly alarming and *untestable* claims about one being behind the other and thus accelerate a race already feverish in its intensity. To call this self-accelerating race a policy of deterrence is to name it in accord with its intended, but unlikely, result. Basically, it is a policy of military mobilization, making full-scale war possible within minutes.

So-called deterrence, I argue, cannot be a way to avoid catastrophe in the long run. Intense physical and mental mobilization for war has rarely been called off: it is more often a prelude to war. The state of mutual deterrence, if continued into the indefinite future, will almost certainly break down eventually. However, my argument does not require so strong a claim. It is enough to accept the thesis that there is at least a fair chance

that the arms race, if continued for a decade or more, will, accidentally or otherwise, lead to a major nuclear exchange. To avoid this possibility, we must move beyond the policy of nuclear deterrence.

My proposal starts with the observation that if one of a pair of mutually hostile nuclear powers unilaterally disarms, little motive remains for the other to use nuclear bombs. If a military move is made, it will be in the form of occupation or some form of domination from a distance. Thus, demilitarization is the surest means of avoiding nuclear war. It better deserves to be classed as a policy of deterrence than does the continued physical and mental mobilization that goes by that name.

If one side adopts a policy of unilateral disarmament, the worst that could happen is that it would be occupied by the other power. Of course, occupation itself would be seen as a great catastrophe, and here the role of mental mobilization is apparent. The desperate effort to win the nuclear arms race cannot be sustained without painting the consequences of military defeat and occupation by foreigners as worse than anything conceivable, both ethically and in terms of suffering,<sup>3</sup> even though nuclear war would in fact be far the greater catastrophe. I consider step-by-step unilateral demilitarization to be the proper road to follow. It must be step-by-step because time is required for the general populace to adapt to the value priorities involved.

In the part of the world in which I live, northern Europe, only one possibility of nuclear war is taken seriously: a war between the Soviet Union and the United States. Among politicians, however, there is also a widespread fear of "Finlandization" if the arms race is not kept up; that is, a fear of dependence that could develop into domination or occupation. Finland is said to live "at the mercy" of the Soviet Union.

Left-wing groups today tend to be as critical of the way the Soviet Union is governed, including its economic system, as are right-wing groups. The significant difference is that the moderate left has a strong tendency to consider Soviet foreign policy as basically defensive, which would make it easier to accept Western unilateral disarmament. I agree with this leftist view but find it unacceptable to take the thesis of defensiveness as a kind of axiom. The hypothesis should be taken seriously that the Soviet Union, at least as much as the United States, is bent on a kind of world policing. Each power is trying to prevent the development of regimes that could strengthen the

other. The policy I recommend assumes, for the sake of argument, that the Soviets intend a kind of world policing. With this assumption and thus the possibility of Soviet occupation, we should note the difficulties that a Soviet attempt at worldwide policing would involve. The way the Soviet Union has tried to protect itself through dominance in Eastern Europe since 1945 is obviously ineffective as a police method on a wide scale. If the United States adopted unilateral disarmament, what would a Soviet government bent on world policing do? No one thinks that a physical occupation by the Soviets would be feasible, nor the establishment of Soviet communism through the very few communists in the United States. (Some authors argue, by the way, that a communist United States would be even more frightening to Russian nationalists than a communist China.) I think that world policing is impossible in the long run by any military means.

Although the Soviets might try, through military exploits, to dominate some new territories, there are strong reasons to suspect that large expansion would be extremely difficult. Soviet domination of Eastern Europe was established through strong communist minorities, and in part through a rather weak attachment on the part of Eastern Europe to the western European social system. Today, Soviet communists are extremely rare the world over, and the regimes that try to develop through Soviet help would prefer to be helped by the United States. Second, the Americans' vast material and mental effort to keep the arms race going would, in the event of disarmament, be used to help those very regimes and, more generally, to foster a desire for social justice that would only be heightened by Soviet military intervention.

A world in which the Soviet Union were armed and the United States were not would have many problems. For example, two minor states at war might ask for Soviet weapons and become politically dependent on the Soviet Union, thus increasing the territories dominated by it. History, however, does not support the belief that empire building solely by such means would last long.

Let us return to the assumption that occupation is possible. Even if the slogan "Better dead than red" is not often heard in Europe, people seemed to hold until the late 1970s that there was nothing worse than being occupied and "conquered" by the Soviet Union. It is, however, of decisive importance that the populace of northern Europe has seriously begun to com-

pare the two evils, nuclear war and occupation. Moreover, the consequences of living with the grave risk of such a war are being broadly discussed. Whereas it once took months or years to amass the materials necessary for a decisive wartime attack, technological invention has drastically narrowed the time between a decision and colossal, indiscriminate destruction. Long-range social and cultural activities cannot thrive in an atmosphere in which there may be nothing the next day to care about. People at the grass roots have started to contemplate these things.

The destructive effect of nuclear war on the conditions for life on the planet and the lack of ethical justification for such a destruction have not yet been widely enough considered.<sup>4</sup> The destruction cannot be justified on the basis of human political rivalry. This presents a sufficient reason for an absolute *no* to nuclear war and the consequent adoption of a policy of unilateral disarmament. Most people, if given the time and opportunity to assess the destructiveness, stupidity, and ethical depravity of nuclear war, will come to see that occupation and "conquest" of one's country is the lesser evil. I think they will also see that it is ethically unacceptable to participate in preparations for nuclear war in order not to be conquered.

Some would respond to this argument by claiming that, although foreign occupation or domination may be preferable to nuclear war, another, much better way of avoiding nuclear war that leads neither to foreign occupation nor to domination is bilateral nuclear disarmament through treaty. As I have argued above, though, this would not solve the problem: threats to rearm would replace nuclear threats, and the carrying out of the former threats would again create the risk of nuclear war. The only solution is for one side to take the initiative to demilitarize.

The absolute *no* on ethical grounds is contested on the grounds of the relative weight of bad or good consequences. The above argument has shown, however, that the possession of nuclear armaments cannot be justified on utilitarian grounds. In addition, an absolute *no* is supported on deontological grounds. I cannot go into discussion of this point, but only refer to another area where an absolute *no* is fairly well established: the *no* to participation in torture. It implies a refusal to consider the hypothesis that one can save ten from torture through merely preparing for the eventuality of torture. The above argumentation against preparation for nuclear war rests on a double basis, one utilitarian and one deontological.



## Cultural Evolution

Saying yes to a credible threat of massive, nuclear retaliation implies a long string of yesses. First, it implies a yes to the nuclear arms race, because the “enemy” naturally seeks to improve his forces to counter one’s own. It also implies an arms race in other than nuclear forms and a more generalized technological race in support of the nuclear developments. A kind of nuclear culture is implied. In democracies as well as in dictatorships, continuous moral support of gigantic military spending is a necessity. In democracies even greater conformity of opinion than in dictatorships is required about the utter necessity of a continued arms race.

In short, a yes to the use of, or the threat to use, nuclear weapons affects cultures as a whole. It affects competitiveness, education, social relations, technological development, the economic system, ethical value priorities, religious teachings, political centralization, organization size, attitudes toward nature, and foreign relations, including relations to the Third and Fourth worlds. In continuing the arms race we must say yes to these undesirable side effects.

The cultural situation is dangerous from another point of view. Not only does the nuclear arms race affect the culture, but the culture in turn promotes the arms race by creating the apparent need for a nuclear defense. Certain cultural traits in affluent industrial countries make us increasingly vulnerable and increase our desperate need to trust deterrence. I shall mention only a few:

1. *Largeness and centralization.* Large organizations can be destroyed more easily than small; large towns, requiring difficult and complex transport of energy, food, and water, are at the mercy of the occupier. Centralization of energy sources, and of resources in general, requires organization on a large scale. Smallness, on the other hand, requires general, basic skills and soft, local technology. Mutual help, group loyalty, and local resilience grow in an appropriate economy of decentralization. Clinging to lifestyles that require largeness and centralization increases the tendency to see only two possibilities: successful, purely military defense, or complete chaos and death. Nuclear deterrence leaves a meager but real chance of survival, so

why not place our trust in nuclear weapons? This way of thinking, taking certain complicated ways of life (never “enjoyed” in any culture until now) as a rock-bottom presumption, fosters an acceptance of nuclear weapons and shows a kind of parasitic relationship between recent cultural development and the arms race.

2. *Cultivation of means rather than ends.* Perpetual economic growth requires strong motivation to invest and strong motivation to buy what is produced. This involves progressive complication and vulnerability of means used to attain desired, intrinsic ends and values. The “good life” requires, to an increasing degree, a gigantic, vulnerable apparatus of organization. Explosive national and economic rivalries must be maintained to continue “progress.”
3. *Cultivation of “power over” rather than “power to.”* By the term *power to* I mean the power by which one can directly realize intrinsic values, and by *power over*, the power of access to means considered useful to secure intrinsic values. Individuals and organizations have material riches or coercive or dominating power over other individuals and organizations, fighting to get as much as possible, but the relation of such power to intrinsic values may remain obscure, sometimes even forgotten. Competition tends to center on “power over” rather than on “power to.” Every great philosophy, whether of the East or the West, has insisted that the really powerful are those who are rich in “power to.”

The wealthy, industrial cultures invite us to compete for “power over,” the sophisticated means to satisfy desires, not real needs. This favors an identification of a loss of freedom with a loss of “power over,” rather than a loss of “power to.” This again favors postures of expansion, domination, violence, and, ultimately, the use of threats of nuclear war to avoid decreased “power over.” It also works toward destruction of the institutions of mutual aid, mutual concern, local sharing, and solidarity.<sup>5</sup>

A successful campaign against threats of nuclear war thus requires deep cultural changes, so deep that the process may be called cultural evolution. If industrial societies are not capable of such evolution, the future of this planet is indeed bleak, for human beings and for other forms of life.

### The Way of Nonviolence Under Occupation

It is a strange, but not inexplicable, coincidence that the policies adapted to the demilitarized status of society are substantially the same as those recommended by the Green pole in European politics. Also, but to a lesser degree, the deep ecology movement in Europe and the United States proposes policies connected with these peace efforts. The way of cultural evolution envisaged in this essay is essentially of the kind advocated by the Greens and deep ecology supporters. (Their philosophies and methods are set forth elsewhere in many publications.)<sup>6</sup> Although only a minority of Europeans have confidence in the replacement of military methods with nonviolent methods, the minority is not insignificant and it is increasing. According to a recent public opinion poll in France, "17% declared they would be ready to *rely* on a system of defense based on nonviolent resistance; only 18% had any confidence in the French strike force as a means of defense."<sup>7</sup>

I want to concentrate on a subject that is rarely discussed: preparation, especially in small industrial nations, for *occupation* in the context of a larger conflict involving threats of nuclear war. My main reason is the earlier point I made that it should not be taken as axiomatic that demilitarization would not lead to occupation by a militarized power. Here I speak in terms not only of nuclear disarmament, but of complete military disarmament or demilitarization. Beyond an absolute *no* to nuclear weapons, we must seek to avoid the use of any form of large-scale, organized violence.

Two developments must proceed together: demilitarization and education in militant nonviolence. The term *militant* is used because the form of nonviolence contemplated requires many soldierly qualities: self-discipline, loyalty, organizational solidarity, physical (but even more, civil and mental) courage, and training. The word *respectful* might be added to *militant* because of the essentially respectful attitude fostered in relation to any human being. Person and action are distinguished: a person as such has the right to be respected. Yet this distinction can be drawn only if one adopts the way of nonviolence. The distinction cannot be effectively made by those who equate violence with effective resistance. As preparation for nonviolence proceeds, a gradual demilitarization can be undertaken.

According to some, demilitarization virtually invites the USSR or the United States to use its coercive power. They consider occupation of small

nations like Norway a certainty. In deference to this perhaps mistaken but widespread opinion, realistic training in behavior under occupation should be instituted. It involves:

1. Training in communication with one another without access to the mass media and the many technical facilities we now use.
2. Training in communication with the occupation forces—that is, learning the English and Russian languages and acquainting ourselves with the kind of “official” justification the occupier is likely to use and how he conceives his own history and culture. (Lack of such knowledge in 1940 in Norway made it necessary for the home front to warn against discussion with the Germans: the latter were likely to win too many points!)
3. Acquaintance with the rules of survival in prisons and concentration camps (survivors are eager to teach us, if invited to do so); acquaintance with the processes of deportation.
4. Acquaintance with the rules of noncooperation and coexistence with the occupier. Occupied people should welcome personal communication at every level, but refuse absolutely to assist in any kind of military work or work that in other ways is auxiliary to the occupation. They should refuse to accept what is patently untrue or to conform to rules inconsistent with their sense of honor.
5. Training in how to continue teaching children in the absence of schools. If the occupier takes over *all* major organizations, schools will probably have to be shunned. In general, information is needed on how all essential institutions of a community can function and be maintained on the microlevel when they are destroyed on the macrolevel. History shows that even one hundred years of occupation need not obliterate a culture nor, seemingly, destroy its quality of life.
6. Training in local self-reliance. Under occupation it may be necessary to dismember all major organizations, including the economy.

As already mentioned, I strongly object to the tendency to treat the basic defensiveness of Soviet policy as axiomatic. As an axiom it justifies the neglect of an unpopular and frightening theme: what if the Soviet Union proceeded to occupy the smaller disarmed European industrial countries?

There should be a frank and widespread discussion of how the advocates of nonviolence propose to act under occupation, and how people could retain the essentials of their life. Reflection about what constitutes those essentials is, at the very least, required today.

Although I have accepted the assumption that the Soviets would move to occupy countries in the West that demilitarized, and thus that we must pursue training in militant nonviolence, I must repeat my earlier point that such a move would almost certainly be unsuccessful in a major industrial power such as the United States.<sup>8</sup> Even in Eastern Europe, occupation *by Russians* would have been practically impossible. Large local communist parties believed that the Soviet system was inevitable, and a substantial number of people were willing to police the rest in a crude and brutal way. There is an atmosphere of civil war rather than of occupation in those countries. The Russians are unable and probably also unwilling to occupy them. In places in the West where Soviet occupation is unlikely to be possible, my argument for unilateral disarmament is even stronger. Nevertheless, discussion of the possibility of occupation is valuable, for it points to features of our culture that need to be changed if disarmament is to be possible.

Many people's first reaction to the requirement of increased preparedness for occupation is a grave doubt that the populace as a whole would be willing to participate. If less than the total populace cooperated, various minorities might worsen the situation: a fanatic or heroic minority opposing the occupier with violence, a minority of quislings, or a substantial minority of passivists sabotaging the essential, microorganization work. This is why training in militant nonviolence is needed to prepare the way for disarmament.

Any occupation force that tried to run a country would ultimately rely heavily on the cooperation of the occupied. Their benevolent but consistent noncooperation would place a great burden on the occupier. If Norwegians in 1940 had said to the Germans, "I think your pay is excellent but, alas, I shall refuse to work for you" (that is, to build airfields, submarine bases, and so on), it would have taken longer to occupy Norway, and many more Germans would have had to work there throughout the war.

If the ten top people in each major organization have ten immediate subordinates, and these again have ten each, it would require a million people to take over the six upper levels of the structure. In Eastern Europe a

sufficient number of collaborators means that the occupier does not have to control all the way down to the levels of the neighborhoods and local community.<sup>9</sup> I am convinced that two million more or less ideologically uninterested occupiers could not subdue a country of ten million decentrally organized resisters.

There is another factor to consider: It is an understandable policy of the Soviet Union at all costs to avoid contact between its own people and those of any country with a higher standard of living. This makes it imperative to limit the number of Soviet citizens in foreign industrial countries to highly trained, constantly supervised officials, and to soldiers safely contained in barracks. To mingle freely and take over jobs in the economic life of an occupied country is out of the question.

In the past, people being occupied have usually prepared some kind of violent resistance in advance. The occupier expects this response, and it elicits a violent reaction. Moreover, the occupied people usually try to restore their large central institutions, and this inevitably provokes a massive response by the occupation power. (The fate of Solidarity could be instructive.) Institutions must be maintained on the microlevel until the occupier is convinced that nothing is to be gained from the costly occupation. Why is it so costly? Resistance of the conventional type during occupation is not focused on economies: the occupiers print vast sums of paper money with which they pay the populace to work for them. Nonviolent resistance is less heroic but costs the occupier much in the long run. The occupied do not accept the new money, and the occupier must pay the bureaucracy needed to occupy.

Of course, there are many objections to the policy of nonviolence. Advocates of the use of military power ask, What would a nonviolent resister do in a particular contemporary warlike situation, for example, one hundred meters in front of advancing tanks? On the other hand, defenders of militant, benevolent nonviolence tend to argue more abstractly and from history—for example, How could Hitler have been stopped through non-military means? The defender of military power asks rhetorically how armies can be stopped nonviolently: "by lying down in front of them?" The defender of nonviolence invites us to consider a train of events since, let us say, 1918, or even earlier. A minority sought to help the German democratic politicians by providing food for the hungry (not shutting off the flow, as happened in the winter of 1919). Also, a minority attacked the financial

abandonment of Germany by the West during the great economic crisis of the early 1930s. The defender of militant, benevolent nonviolence resorts to history, saying, If a minority favoring a certain nonviolent policy had been stronger, then the question of a military solution would not have arisen. Both ways of arguing have weak and strong points.

A similar polarity of argumentation makes itself felt concerning the consequences of actions: the first group stresses immediate consequences; the second, long-range consequences. This essay stresses the long-range consequences of a continuing arms race and the continuing adaptation of the whole culture to participation in nuclear war. The two groups have a slogan in common: freedom. However, the term has many shades of meaning, and here they differ.

It is common in industrial democracies to identify a gain in level of freedom with a gain in individual influence over social arrangements, rather than a gain in self-realization, that is, an increase in the power of the whole personality to realize basic, intrinsic values.<sup>10</sup> Again, there is confusion of "power to" with "power over." The tension between Nehru and the Indian nationalists on the one side, and Gandhi on the other, is an example of this and of great significance for world history. For the first group, the key slogan *swaraj* (self-rule) meant political independence. For Gandhi, political independence was never treated as an ultimate, intrinsic value. For him, *swaraj* included the eradication of mutual threats between religious groups. *Swaraj* required a level of maturity that could make political independence work to the best for the nation as a whole. In the West we must keep in mind that the self alluded to in Gandhian *swaraj* is not the abstract ego, but the eminently, socially engaged, mature self.

Participation in plans for nuclear retaliation to maintain political freedom neglects the concept of freedom as understood by Gandhi as well as by central Western philosophers. To invoke love of freedom as the motive for the nuclear arms race is to debase the very ideals of freedom.

The discussion of freedom and resistance under occupation invokes the question of the essentials of a way of life. In spite of differences in ways of life today among those who feel they lead a good or satisfactory life, *kinds* of requirements are held in common.<sup>11</sup> Easiest to define are the biological and physiological requirements, such as food. Psychological requirements are more difficult to define, and their presence much more difficult to test, but

they would include felt security, being loved and loving, being respected, self-fulfillment, engagement, meaningfulness, and so on.

In discussions of the hardships under dictatorships, "felt security" is foremost among the psychological factors. Declared opponents and their families may never be sure that some terrorists hired by those in power will not suddenly arrive and drag them from their homes. (An example of felt security is the British definition of nondictatorship: you know it is only the milkman making a noise at the door at 6 A.M.) Felt security today, however, is perhaps no greater than under occupation.

The evils of occupation, as experienced during the Nazi occupation of 1940–1945 in Scandinavia, were those of restricted public communication: everything printed was censored. A large amount of opinion and information could only be communicated to large groups "illegally." People caught in the production and distribution of such material were imprisoned and sometimes tortured. Schooling, a kind of communication to large groups, was interfered with: there was pressure to change the content of the communication. Again, resisters were prosecuted. Clearly, though, those evils, which resulted in the laborious organization and development of networks of small-group communication, could not compare with what is likely to happen after a nuclear war. The population's mental health and degree of satisfaction with life were not very much lower, I have reason to think, during the occupation of Norway than they are now. The fundamental evils of prolonged occupation by a state like the Soviet Union are likely to be social, cultural, and mental, rather than physical.

Again, though, the effects of nuclear war, and the kind of society likely to develop after such a war, represent losses of an entirely different order and evils of a completely different ethical kind. Whereas nonviolent resistance under occupation tends to heighten the morale of the populace, strengthen its will, draw people of different classes together, and deepen their consciousness of their own culture, the vision of territories after nuclear war is one of extreme demoralization.

## Conclusion

In a poor Indian village it is more rational for each farmer, as an individual, to have five sons rather than one, but for the village as a whole, this is



deadly. For each nation, taken separately, security, as conventionally defined, rests on competition and the arms race, but for humanity and the planet this is absurd, since their security in the case of an arms race inevitably decreases.

Unilateral demilitarization takes the opposite course and starts with the planetary view. Security, as conventionally defined, is zero or very low, to the extent that occupation is a possibility. When defined in terms of power to defend the essentials of a way of life, however, security is not zero or low. How high it is depends in part upon the material requirements of the essentials, the degree of unattractiveness of occupation, and the tendency among other nations to take the planetary rather than the isolationist view.

The likely effect of a full nuclear war is such that one has to say absolutely *no*. This implies saying no also to participation in the current preparations for nuclear war, that is, to the policy of nuclear deterrence. It implies a no to conventional armaments, which, within a short time, can be developed into nuclear armaments. It implies a policy of gradual unilateral disarmament.

Countries that unilaterally demilitarize have to take seriously the possibility of occupation. Defense means, in this case, defense of the basics of a way of life. The only promising way to assure this is the militant nonviolent way. Implied in that way are deep cultural changes, which cannot occur as long as there is preparation for participation in nuclear war. Therefore, the first step is the rejection of participation, whatever the circumstances.

The work for this long-range goal does not preclude wholehearted participation in current peace movements with more limited goals.

### **Suggested Additional Readings**

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IV  
SPINOZA

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## Is Freedom Consistent with Spinoza's Determinism?

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### Inconsistency?

Spinoza has been charged with inconsistency in proclaiming both determinism and freedom.<sup>1</sup> Some have put forth weighty arguments against the charge, but the matter is still controversial. Many twentieth-century historians of philosophy have upheld the charge.

In one of the most widely read histories of philosophy, it is simply said that Spinoza denies human freedom. It is also said, however, that he tries to "have it both ways": to maintain both an extreme determinism and an ethics presupposing freedom (Copleston 1963: 257).

In what follows I shall argue against the thesis on inconsistency and also try to clarify in what sense Spinoza is determinist, in what sense he is not, and *in what sense he did not take a definite stand*.

This undertaking derives its importance from the actuality of Spinoza's teaching, properly understood. I know of no philosopher after Spinoza from whom people can learn as much of significance for our life and community. We therefore need clear expositions of the doctrines of freedom, determinism, and necessity, expositions that do not contain unnecessary philosophical technicalities. In what follows I try to offer one such exposition.

This article was reprinted with permission from *Spinoza on Knowing, Being, and Freedom: Proceedings of the Spinoza Symposium at the International School of Philosophy in the Netherlands (Leusden, September 1973)*, edited by J. G. van der Bend (Assen, Netherlands: Van Gorcum & Comp. B. V., 1974), 6–23. Unless otherwise noted, all translations from Spinoza's Latin texts are by the author.

### Determination: Meanings and Kinds

Determination is basically a relation between two relata, the determinans and the determinatum. If  $A$  determines  $B$ ,  $B$  may or may not determine  $A$ . This holds good whether  $A$  and  $B$  are different or, in rarer cases, identical. The boundaries of Dutch administrative regions determine each other. We have then to do with a topological determination.

Given the function of whole numbers  $y = f_1(x) = 2x$ , the choice of  $x$ 's determines the  $y$ 's. However, we can also write  $x = f_2(y) = \frac{1}{2}y$ . The relation is symmetric. The choice of  $y$  determines the  $x$ 's. Or, less voluntaristically and more in the way of ontology,  $x$ 's determine  $y$ 's and  $y$ 's determine  $x$ 's.

In this formulation we still use a verb, *to determine*, that suggests a time interval. This we may eliminate in our example by saying that to every  $x$  there corresponds one and only one  $y$ , and vice versa. Time is eliminated. We obtain a key by which to survey in thought an infinitely rich set of pairs of numbers, namely, those satisfying the functions.

Two angles in a plain triangle determine the third. If the two are  $30^\circ$  and  $60^\circ$ , the third is  $90^\circ$ . The third, however, does not determine the other two. They may be  $15^\circ$  and  $75^\circ$ , or both may be  $45^\circ$ . The relation is asymmetric.

In these topological, algebraic, and geometrical examples, time does not enter. We might add a long list of other kinds of examples in which time does not enter.

If "time enters," that is, if  $A$  *antedetermines*  $B$ , if there is a difference in time, however small, between  $A$  and  $B$ , the relation is by definition, or by logic of time, nonsymmetric. If  $A$  determines  $B$ ,  $B$  cannot determine  $A$ . If the ring of a bell determines Mr. Brown's immediate rising from his bed, this second happening does not determine the first happening. On the other hand, appropriate location of a bell may well determine the ring of the same bell if Mr. Brown jumps out of bed, hitting the bell. This only points to the relevance of a proper description of different contexts.

If  $A$  determines  $B$  and  $B$  determines  $C$  in time, one may or may not say that  $A$  determines  $C$ . Some concepts of determination in time are such that there must be time continuity between determinans and determinatum; others admit the possibility of an interval. The latter is the case when we in daily life say that the bell makes Mr. Brown jump out of bed: he may yawn before doing it without falsifying our contention.

Taking antedetermination to be a subkind of determination in a broad sense, we ask, Does Spinoza, when using the terms *determinare*, *determinatum*, *determinatio*, *predeterminatio*, intend to express an antedetermination or other kinds of determination? What can be learned from the many occurrences of the terms in Spinoza's texts, primarily the *Ethics*?

There is perfect agreement among Spinoza specialists that in *some* occurrences timeless determination is intended. Thus, the complete determination and causation of all things by God is clearly timeless. According to the doctrine of immanence of God in the world, or more accurately in Nature, God could not precede Nature, and create it. Further, when he causes himself, he does not precede himself in time.

Let us, however, raise the question "Are *all* occurrences of *determinare* (etc.) in the *Ethics* such that timeless determination is intended?"

At first it seems evident that some occurrences are of antedetermination. Thus IP28 has been largely interpreted to refer to chains of events in time.

In IP28 and its complicated demonstration, however, there is no *direct* reference to time or duration. One thing (*res singularis*) is the cause of another, which in turn is the cause of a third. IP28 would furnish occurrences of *determinari* and *determinatum* in the sense of antedetermination if, and only if, the *determinatum* according to IP28 or its proof follows immediately after the *determinans* in time, or after an interval of short or long duration. There is no direct indication of this, but even if there were a reference to time, it need not be the one-dimensional *historical* time in which each unique limited event starts to exist at a certain date and to vanish at another. The equations of physics contain "t," but they do not contain dates.

We can therefore not without arbitrariness infer from the occurrence of the term *causa* in IP28 that there is a case of antedetermination. The causation may be of one of the timeless kinds, for example, that of delimitation or of giving a reason or ground for something. Or it may be the delimitation of one thing or power in relation to others.

### The Infinite Chain of Timeless Causes or Reasons

In IP28 a singular thing is said to have a cause, which again has a cause—not several or infinitely many causes. We thus are led to picture a simple chain of causes—and why not then a chain of events in historical time?

Time is one-dimensional. The most important argument in favor of interpreting IP28 to tell about processes in time stems from this peculiarity. One thing seems to have only one cause, and if so, it is natural to think of something just preceding it. There are, however, many reasons for hesitation.

The cause of a particular thing—its existence and way of operation—is according to Spinoza identical with that through which the thing is understood. The understanding of the cause *contains* the understanding of the effect. The cause of the cause is, again, something through which the latter can be understood. Thus, we have here a chain of causes corresponding to a chain of questions “why?” and “how?” It is not a time chain, however. At least not when we cognize the second or third way.

Time is an *ens imaginationis* and this influences the status of time cognitions.

That through which something is understood has a form of unity through its hermeneutic function. It is therefore not unnatural to refer to it in the singular—as the cause rather than the causes. This may contribute to the explanations of why Spinoza uses “cause” in the singular in IP28.

If *B* is understood through *A*, *A* may, according to common usage, be something existing before *B* in time or it may not. This holds even if *A* and *B* are particular things. Giving examples should be easy, but I hesitate because of the complicated use of the term *res* in the *Ethics*. Is a man, a horse, or a happening a singular thing (*res singularis*)? If a concrete happening or event is a thing, time may not enter in its explanation. “The cause of the increased pressure is the increase in temperature.” Here the increase in temperature does not *precede* the increase in pressure. There is no antedetermination.

Causes are said in IP28 to determine existence and definite ways of operation. The reference to operations in IP28 therefore does not suggest that *causa* as used in IP28 is something determining something that will appear later.

Conclusion concerning IP28: There is in IP28 and its proof no decisive argument in favor of complete or incomplete determinism in time. The determinism may be one of timeless determination, for example, in the sense of lack of arbitrariness or chance.

In *Letter 23* Spinoza says that “all bodies are surrounded by others, and are mutually determined to exist and to operate in a definite and determined matter.” Mutual determination of *A* and *B* occurs when *A* deter-

mines *B* and *B* determines *A*. Here the determinatum cannot follow after the determinans in time; the effect cannot precede the cause. Clearly, Spinoza sometimes speaks about mutual physical determinations that do not make up one-dimensional chains and therefore do not indicate succession in time.

Spinoza sometimes stresses explicitly that "the definite way a thing exists and operates" does *not* refer to duration. Thus, in the preface to part IV, the definite *kind of way* of operation is determined by the essence of the thing, but the essence of a thing does not precede its operation in such a way that after the occurrence of the essence, the thing starts to operate. Determination by essence, if we apply the definition of essence in part II, precludes temporal or processual determination. "The reality, that is, the essence of a thing in so far as (the thing) exists and operates in a certain way, has no relation to its duration." If the essence determined the operation as a chain of events in time, it would also determine beginning and end, that is, duration. From this I also infer that the determination by essence cannot be in time.

In a chain of events, the event *A* just preceding event *B* may be said to determine the existence but scarcely the operation of *B*. Events do not operate. If a cause *A* determines both the existence *and* the operation of something *B*, *A* must at least have a concrete kind of thing-character, not event-character. The time relation is then either irrelevant or only accidental.

From all this I also tentatively conclude: a complete description of *the way* in which a thing exists and operates does not contain dates. The mutual determinism of all ways of existence and operation is not a determinism in time.

All possible things are, according to Spinoza, expressions or manifestations of Spinoza's God. Perhaps this God is simply not interested in a definite order in time? And Spinoza was perhaps not interested?

### **Antedetermination and Timeless Kinds of Determination**

It is my first tentatively asserted general thesis that what holds of IP28 holds for the *Ethics* as a whole: there is in the *Ethics* not one occurrence of *determinare* (etc.) in the sense of *antedeterminare*—determination in time. More accurately, I assert that there are no *decisive arguments* for the conclusion that *determinare* (etc.) anywhere refer to determination in dated time.



Some formulations by Ernst Cassirer (1920), Harald Höffding (1950), and other highly professional students of Spinoza seem to imply a conclusion in the same vein, but they may not be intended to do so, and their authors have not offered a detailed discussion of relevant evidence in the text.

An objection to the general thesis (the thesis generalized from our conclusion concerning IP28) can be based on a text unit in part II. Spinoza has there inserted a mechanistic physics. He discusses such events as pushing: one body giving another body a push. The first body antedetermines the movement of the second. The second may, in turn, determine the movement of a third.

The proof of the third lemma of this part of the *Ethics* resembles in phrasing and style the proof of IP28. It is, I think, perfectly legitimate and also highly interesting to interpret the more general IP28 in conformity with the more narrow lemma 3. We then obtain an interpretation of IP28 that binds us to a kind of universal determination of durations, which endangers the status of consistency between propositions on determination and propositions on freedom. It is one of my contentions that carrying over such a binding or prejudgment or anticipation from parts I and II to parts IV and V is methodologically unwarranted and harmful. Our conclusion: the determination envisaged in lemma 3 of part II includes complete antedetermination, and its physics of bodies may through an interesting generalizing reconstruction be made to cover the whole doctrine of extension in the *Ethics*. This kind of reconstruction or interpretation, however, is not the only plausible one consistent with the text as a whole.

Among the timeless kinds of determination are some of particular importance for our general theme: (1) Determination in the sense of *delimitation*. Finite things have boundaries, limits that mark them off from other things. Things are defined by such delimitations. "All determination is negation." (2) Determination as emanation. From God as cause and determinans the world emanates according to Jewish and other medieval philosophy that influenced Spinoza. The immanence of *Deus sive Natura* precludes emanation in time. (3) Determination of kind. Anger causes something and something causes anger. That is, the *kind of* affect called anger has certain *kinds of* effects. Or, more nominalistically formulated, members of the class of angers have effects of certain limited differences, thus making up a natural class. Particular things in the sense of particular *kinds of* things have

particular *kinds* of effects or manifestations. Anger, nominalistically conceived, does not precede its manifestations, however.

The third concept of determination, classes of things having classes of effects in common, is particularly important for the theory of active emotions in parts IV and V of the *Ethics*. This theory, again, plays an important role in provoking arguments that Spinoza's theory of determination contradicts his doctrine of freedom through conquering passive emotions.

Let us inspect some determinations of class (genus determination). (a) "The free man . . . tries to join other men in friendship" (IVP7oDem). I interpret this in terms of classes: members of one class of things (*res*), namely free men, cause the establishment of another *class* of things, friendships.

Free men *necessarily* try to establish friendships, they are *determined* to do it, but nothing can be said about a particular free man at a particular date. The essence of free men is such that it determines every member of the class of free men to try to join other men with success or without success. (b) "[H]atred is increased by being reciprocated, and can on the other hand be destroyed by love" (IIP43). Here again, determination *as asserted* by Spinoza is a relation between kinds or, better, between classes of things. Definite ways of operation are asserted, but in the sense of classes of operations forming ways. Details are left out.

Even when Spinoza speaks about *res singulares*, particular things, it is at least sometimes clear that he speaks about particular *kinds or classes* of things. This implies that Spinoza is not talking about a strictly singular temporal sequence of events, the one and only one *history* of nature, including man. In that case he would be speaking of strictly singular things at definite *dates*. Of course, Spinoza may have had the opinion that a definite unique singular anger elicited a completely definite reaction. This opinion is not expressed, however. (Moreover, it is false, I think, because the reaction would, for example, also be determined by the level of freedom of the recipient, the customs of his social class, and the physical medium between the angry person and the recipient of the anger. In short, all Nature is involved.)

### Laplacian Universes: Not Spinoza's Concern

Datedness becomes decisively important as soon as we by determination think of causal determination à la Laplace. The state of the universe at time

$t_0$  determines in all details the state of the universe at the next moment  $t_0 + d$ , where  $d$  is the smallest meaningful quantity of time.

We may think of a film played more and more slowly. What happens in the next picture is determined by what we see in the foregoing. With ordinary films, we soon see walking as a series of jumps and jerks, because of the relatively long time interval between the photos taken. The state of affairs at time  $t_0$  clearly does not cause these jumps. The Laplacian view, however, is that the time intervals must approach zero for us to arrive at accurate predictions. Knowledge of the man walking must include knowledge of his position at different times with a millionth millimeter accuracy, forming part of the knowledge of the so-called *Randbedingungen* at the atomic level. Some kings have stumbled and because it has been taken as a bad omen, the miscalculation of millimeters and seconds has great historical consequences.

The development of the universe is one single process in time, and since no pair of macroscopic objects or pair of cubes in spaces are likely to be only arithmetically different, determination cannot be expressed by what happens to kinds or to classes of things. Two grains of sand, or two human beings always subjected to different forces according to where they are, will have different histories and will influence the rest of the universe in different ways. Spinoza's determinism of classes does not suffice to generate a Laplacian determinism.

The Laplacian model of the universe is strange and abstract, but it has with slight alterations (owing to quantum physics) somehow entered the thinking of practically everybody impressed by physics as the source of so-called scientific worldviews.

Even if class determination somehow were completed—the laws of *all* kinds of things being stated—there would still be no way of predicting any future event from the present. Spinoza sometimes uses the term *to predict*, especially in his *Theological-Political Treatise*, but not in any way connected with the question of predictability of world development.<sup>2</sup> Spinoza does not discuss to what extent, if any, an event can be predicted from something that is determined—the determinatum.

This means that the *Ethics* does not provide or intend to discuss any determinism adapted to physics or natural Newtonian or Bohrian science in general. *To attribute natural science determinism to Spinoza is totally misleading.*

This implies that the discussion concerning the consistency of natural-science determinism with Spinoza's doctrine of freedom is irrelevant. They have never been asserted together.

The determinism of physics is the only form of determination in time (antedetermination) that has been conceptually worked out in detail. The antedeterminism of fate, fatalism, concentrates on a small range of important events such as death, salvation, and marriage. Spinoza perhaps subscribes to that fatalism (cf. VP52). Even if he does, however, this view is very different from general antedetermination. Even if fate orders somebody to die in an airplane crash, he or she can live different ways until death.

It is significant that a contemporary philosopher with exceptional appreciation of Spinoza nevertheless upholds the view that his determinism is of a Laplacian kind. As a consequence, Spinoza's view is criticized as out-of-date.

[M]etaphysical determinism, of which Spinoza was the most uncompromising proponent, no longer seems such an acute issue to philosophers and moralists. . . . The simple faith of Laplace in the theoretical possibility of a complete explanation of every state of the universe is now generally represented as logically absurd. Determinism in this extreme form seems plausible only at a time when the possibilities of complete scientific explanation are accepted as absolutely unlimited.

(Hampshire 1951: 154, 156)

Spinoza was not interested in complete explanations of a state of the universe, and his idea of the vast possibilities of human understanding is untouched by the impossibility of complete explanations of such states.

According to Hampshire, Spinoza adheres to "metaphysical determinism" of a Laplacian kind. He was a child of his age. "[A]n effort of imagination is now required in order to reconstruct the intellectual conditions in which it seemed generally plausible" (ibid., p. 154). If what we have said in the foregoing is tenable, Spinoza has not given us any ("ruthlessly stated") exposition of antedeterminism or of a determinism of events. *His problem was never even similar to that of Laplace.* We do not need to invoke the "child of his age" excuse.

Unhappily, the belief in Spinozism as a sort of inconsistent "mechanis-

tic determinism” colors its reception in a great part of human society: the part in which dialectical materialism is taught.

### Spinoza’s Concern: Essential Relations

To get nearer to Spinozistic determinism, we shall proceed from the discussion of determination between kinds or classes of things to the discussion of *relations of essence*. What engages Spinoza are the things that follow necessarily from the nature of the human predicament. As a theoretical starting point we may take what is said in IIP7Dem:

From the given essence of anything there follows necessarily something; but only that is in the power of things which follows necessarily from their definite nature.

Most of the theorems concerning man I take to express what follows from the nature, that is, the essence, of man. Some examples have already been stated above. Others are: “Our mind is active in relation to some things and passive in relation to others: in so far it has adequate ideas it acts with necessity . . .” (IP1). “The acts of the mind originate in adequate ideas, the passions [passive states] depend only upon inadequate ones” (IP3). “Desire arising from joy is, other conditions being equal, stronger than desire arising from sorrow” (IVP18). (The theorem does not assert something about one particular desire and one particular joy, but something about every particular desire and every particular joy. Thus, the theorem asserts something about essential relations between members of *particulars* forming classes.) “An affect cannot be coerced or suspended except through an affect that is contrary and stronger than the affect that is being coerced” (IVP7). “He who imagines himself to be hated by another, and believes that he has given him no cause for hatred, will hate that other in return” (IIP40).

In the last example, the term *imaginari* is of central importance.<sup>3</sup> The law of human nature expressed by IIP40 concerns imagination or knowledge of the first kind. Hatred is only an object of knowledge of the first kind. The essential relation expressed by IIP40 is not characteristic of free men who answer hate with love and generosity. If the limitation of IIP40 is forgotten, it is easy to construct a case of inconsistency between theorems in part III and some of the latter half of part IV of the *Ethics*.

Asserted essential relations are asserted relations between *classes of particulars*, not between unique particulars, dated or undated. The particular operation of things *in time* is therefore not determined by essential relations. Durations can, according to the “uncertainty theorems” on the “common order of nature,” only be guessed; cognitions of them are highly uncertain. They are even uncertain *in God*.

Spinoza does not pretend to offer a key to knowledge of particulars in time.<sup>4</sup> What, then, does he offer us?

Spinoza's important claim is that the way to freedom and salvation depends largely on knowledge of essential relations. His mission is to impart such knowledge to us.

The total set of essential determinants for the person or group or community at *A* causes, under the given conditions, *A*'s decision or action. “What *A* will do,” “how *A* will react,” must lie within a boundary, a limited field of possible actions. Suppose a possibility is actualized that results in a new situation at point *B* within the field. From that point there again is a variety of possibilities within the limits put by essential determinants—and so on, as illustrated above.

### **Freedom Through Insight into the Determination of Essentials**

What we need along our road of increasing freedom is increasing insight into our nature or essence. In particular, we need to know more about our power and its limits. Thus IVP<sub>17</sub>Sch:

[I]t is necessary to get to know both the impotence and potency of our nature, so that we can determine what we can and cannot do in controlling our affects.

In any situation, what we can do will be many things, not one: a field with boundaries, not a point. The increase of knowledge concerning our nature or essence is an increase of knowledge about (necessary) relations between our essence or nature and that of other things, and necessary relations within our essence or nature. This does not restrict the field but clarifies its extent.

The predicate *necessary* is strictly speaking superfluous because relations within essences or between different essences are not open to external influences. (Modal logic is therefore largely an unnecessary tool.) Necessity

as predicated of the essential relations is by Spinoza opposed to arbitrariness or chance. Necessity is, as he often stresses, not a kind of coercion: necessary is what follows from the very nature of a thing as part of that thing. The necessary partakes in the very definition of the thing. A thing does not coerce *itself*. The term *necessary* would never be used if our insight and our language permitted the presentation of the whole of a thing.

Conclusion: Except for criticizing Descartes's doctrine of free will, or better, *liber arbitrium*, Spinoza does not enter into the debate about antedetermination of the particular consequences of a particular choice. It suffices for him to assert the complete determination of the frame or condition of choices by *the structures of essential relations*. Certain imaginings of philosophers, and of Descartes in particular, must be fought at all cost so that we realize our constitutional limitations (Spinoza the great realist and naturalist!), but the realistic assessment of the limitations must not make man despair on his road toward the greatest heights of freedom and power.

### Grades of Power and Freedom

Spinoza does not shrink from talking about what *we* perform or are able to perform: "if we remove . . . an emotion" (VP<sub>2</sub>); "we form a clear and distinct idea" (VP<sub>3</sub>); "we have the power of arranging" (VP<sub>10</sub>); "we are active" (VP<sub>18</sub>Dem). These expressions are taken from the part dealing with our freedom, but similar expressions are found all through the *Ethics*. We find also a number of exhortations: we must take notice of, understand that. . . . There is no hint in the *Ethics* that this way of speaking sometimes makes Spinoza uneasy. We, persons, members of *Homo sapiens*, are of course able to decide more or less freely to do or not to do such and such. This ability is a necessity of our nature and its recognition part of our insight into essential relations. However, Spinoza's trust in our justification for speaking as exemplified by the above quotations is not shared by all readers—and for good reasons. One of them is the not very clear separation of two concepts, a kind of absolute and a kind of relative freedom and power. Freedom is for Spinoza intimately connected with activity and power.

Definition 7 in part I, the definition of "a free thing," is such that it can apply only to God or substance. In the first part, and also later, Spinoza states, however, that only God is *absolutely* free. This suggests that some-

thing might be free, but not absolutely free. It suggests that Spinoza thinks of freedom as a matter of degree and/or as something we realize in some but not all situations. I shall for the sake of simplicity mostly use the term *degree*. In a few places Spinoza explicitly uses a notion of freedom such that freedom is a matter of degree.

The man who follows reason is more free (*magis liber*) in a state . . . than alone.

(IVP73)

This is the only explicit grading of freedom in the *Ethics*. In *Letter 21* there is another occurrence:

Our liberty is placed not in a certain contingency or in a certain indifference, but in the mode of assertion or denial, so that the less indifferently we affirm or deny something, the more free we are.

Then there is a famous superlative, *liberrimus*, “most free,” in *Letter 58*, quoted earlier in this article, not registered clearly in Boscherini’s excellent *Lexicon spinozanum*.

In *Political Treatise* 2, 7, we find a grading:

The more, therefore, we consider man to be free, the less we can say, that he can neglect to use reason. . . .

This occurrence is of interest also in connecting freedom and necessity: the free man *cannot* neglect reason, he is not *forced* to use reason; but he necessarily uses it, this belonging to his very nature or essence as a free man.

The adverb *libere* is sometimes graded, but perhaps with less relevance for our argumentation. The many occurrences of the expression *absolutely free* (*absolute libera*) and similar expressions with “absolute” are evidence of a broader concept ‘freedom’, with absolute freedom as a special kind or case. Such evidence supports our main conclusions.

Among the free men there may be differences in power, and this makes for, or simply (see IVDf8) is equivalent to, differences in degrees of freedom. According to IVP46, free men strive *as much as they can* to compensate hate with love and generosity.<sup>5</sup> It is reasonable to suppose that their amounts of power are not identical—but that some have more and others



less. Through the equivalence of gain in power and gain in freedom, this implies differences in degrees of freedom within the class of people Spinoza would consider to be free men in a broad sense.

The combination of a graded use of *free* and the use of expressions like *absolute free* as applied to God, permits us to establish the existence of a broad and a narrow concept of freedom. As a designation of the narrow concept, however, Spinoza sometimes uses simply *liber* without any absolute qualification. It is this usage that gives rise to charges of inconsistency. Man cannot be both free and not-free, at least not under a definite set of conditions, but man *can* be moderately free and therefore moderately unfree. He is both—not absolutely free and not absolutely unfree. This is part of his predicament.

With the establishment of the two different notions, the absolute and the graded, the road is open to eliminate alleged inconsistencies between sentences predicating freedom and sentences predicating lack of freedom.

A series of propositions in part IV, IVP69–IVP73, describe the free man. The way they are talked about strongly suggests that *Spinoza thinks there are free men*. There is nothing hypothetical about them. Spinoza writes in the indicative mood about people “who are ruled by reason” (*Ratione gubernantur*, IVP18Sch) and who “look for what is useful for them guided by reason” (IVP18Sch). On the basis of the above distinctions we take free men to be predominately free—free to a rather high degree, free in fairly numerous important situations or respects. Some assertions on freedom are thus robbed of absolutism, but others clearly are intended to express absoluteness. “That thing is called free, which exists out of its nature’s necessity only, and is determined through itself only to act.” The expression *res libera* in IDf7 is taken to be shorthand for *res libera absoluta*. *Causa libera* in the first part is synonymous with *causa libera absoluta*.

When men are said in IP17Sch to believe they are free, absolutely free is meant. This belief is an illusion, but there are also cases of illusions of non-absolute freedom, as we shall see later.

### What Freedom Consists of, According to Spinoza

Spinoza says that freedom presupposes necessary relations and therefore the absence of contingency. When a free agent chooses act *A* in preference to *B*,

the difference in preference must follow with necessity from the nature and striving of the agent and from the agent's insight into the situation. Otherwise, what *is* freedom? There are more or less complete extensional, if not intensional, equivalences between the term *free* and certain other expressions.

In a number of contexts Spinoza says that to be free *is* to follow or be led by reason, which *is*, again, the same as to act out of virtue. To be unfree *is* to submit to passive emotions (affects), to be the slave of (passive) passions. By implication, the free acts from active emotions.

There are other extensional equivalences, based on IVDf8, IVP24, IVP25Dem, IVP26Dem, IVP52Dem1, and IIP55Dem2. Accordingly, to act freely is to:

- Act in accordance with one's essence
- Act in accordance with one's nature
- Act from the laws of one's own nature
- Do what follows with necessity from one's nature
- Act, and not from contingency or indifference
- Effect what can be understood from the laws of one's nature
- Act from power
- Live according to the dictate of reason
- Conserve one's being according to reason
- Base one's actions on the fundament of seeking what is really useful

To find out exactly what *kind* of relation of equivalence holds at each particular place in the text, one would have to go deeply into the doctrine of definition, essence, and method as suggested, but not elaborated, by Spinoza in *On the Improvement of the Intellect* and other writings. Here it suffices to remind oneself of the inner relations between the term *free* and other terms in his system. It does not work to try to isolate a problem of freedom from the problems of essence, nature, power, reason, active emotion, and adequate ideas. The study of Spinoza is an exercise in systems thinking on the fundamental level.

There is in the *Ethics* nothing hypothetical about free men. The equivalences broaden the relevant places. When in IVP66 Spinoza says that *we*

strive when led by reason to prefer a greater future good to a lesser present, *we* are to that extent free. In the demonstration he uses an analogous expression: "to the extent that we take notice of reason itself." When Spinoza in the note to the "pessimistic" IVP<sub>17</sub> stresses that he reckons with the difference between those who have and those who do not have insight, he by implication points to the moderate or relative difference in level of freedom. The equivalences give the "road to freedom" a richer and more earthbound sense. It is a path we all struggle along, with minor or major lapses. Occurrences of an explicit grading of "free" are rare, but there are many occurrences in which the equivalent expressions are graded. They support our conclusion that the freedom envisaged by Spinoza and applied to human beings is proportional to the extent to which we act from the necessity of our own nature. As in his treatment of common sense, he does not find relevant the question of whether our nature "ultimately" is causally fully determined by something else. The relevance of "ultimateness" only makes sense when we are thinking about time: our nature did not exist before we were born or conceived. If, therefore, we conceive of complete determination as occurring in time, our nature is not ours but a nature prefabricated by something else. Spinoza does not offer such reflections because the determination he talks about is a mutual one, an interdependence. It is only the time dimension that is one-dimensional and gives rise to the thought "I am completely prefabricated."

### The Fictive Human Freedom

If we equate "from necessity" with "not from contingency or indifference," the necessity postulated by Spinoza says no more than that there is an inner relation between the nature or essence and the acts performed. The acts are manifestations of the nature or essence, and without the acts the essence would be a mere word or fiction. This reveals the dynamic character of the notion of essence (closely related to *conatus*).

Men act from a mixture of causes or determinants, only some of which are internal, that is, follow necessarily from their nature. Men tend to be unaware of the noninternal determinants, the "external causes." They all tend to believe that they act in such and such a way for *no other reason* than

that they want to act in that way. With this in mind, let us inspect a famous passage in *Letter 58*:

[A] stone receives from an external cause, which impels it a certain quantity of motion, with which it will afterwards necessarily continue to move. . . . Surely this stone, inasmuch as it is conscious only of its own effort (*conatus*), and is far from indifferent, will believe that it is maximally (completely) free (*liberrimus*), and that it continues in motion for no other reason than because it wants to (*vult*). And such is the human freedom which all men boast that they possess. . . .

Absolutely all men? Or all men who boast? Or what? In this letter Spinoza seems in his rhetorical mood to forget for a moment his free men alluded to in part IV of the *Ethics*. They have been said to understand their own actions, and at least some of them have presumably read and accepted what Spinoza says in his *Ethics*! They, at least, clearly did not boast of their so-called *liber arbitrium*.

If, however, we are spontaneously conscious only of our own effort in the sense of our own *conatus*, this explains that we all are *liable to* take internal determinants to be the only determinants of an action. The mistake is one of analysis, and it does not disqualify the spontaneous consciousness of freedom. This consciousness is not a registration of *free will* or of *all* determinants. If we decide to open an umbrella, a spontaneous feeling of free decision governs the act, and we have good grounds for taking this freedom at face value. That the rain externally caused us to do so is irrelevant.

If we have an inclination for analysis, we may take the time to try to list determinants, *including* the external ones. We shall then avoid neglecting the rain, our clothing, our bad health, our cultural determinants, perhaps our conscious vanity, our distaste for polluted sulfuric acid, a slight joy in using our new umbrella, and whatever else. None of these determinants need furnish any arguments against the (nonabsolute) freedom of our action. If, however, we later find that we used the umbrella because of hypnosis or passive affects, we shall arrive at a low estimate of freedom, perhaps a high degree of slavery under passions or a kind of automatism in that particular situation.

The *illusion of freedom* from false analysis is not universal and constant.

Otherwise, Spinoza's examples would not single out people with weaknesses or those not yet ripe for making a correct causal analysis:

So the infant believes that it freely wants revenge; the timid that he wants to escape. Then too the drunkard believes that, by free decision of his mind, he says those things which afterwards when sober he would prefer to have left unsaid. (Letter 58)

*If sober* we may freely decide not to say certain things, but this freedom does not reveal *liber arbitrium*. It reflects in action our nature or essence as an integrated personality.

So the delirious, the garrulous and many others of the same sort, believe that they are acting according to the free decision of their mind, and not that they are carried away by impulse. (ibid.)

By "others of the same sort," Spinoza refers to that subgroup of people at a low level of freedom. "Carried away" is another way of describing slavery under passive emotions.

The *illusion* of freedom is, in other words, characteristic of uncritical people, in uncritical moments; it is not characteristic of human beings as such. Some people have *insight into* their own freedom, an adequate idea of their own freedom. The illusion of freedom is not a necessary consequence of human nature or essence, but neither is its absence.

How much people differ from one another, says Spinoza (in IVP66Sch), is clear when comparing IVP18 with IVP66, both of which may be true without inconsistency. The former concentrates on people who are led by passions or opinions, whereas the latter is about people who are led by reason. It is absurd to take what is said about "the delirious, the garrulous and many others of the same sort" to hold about the people led by reason. We could then, for example, derive from IVP66 the following theorem:

Those who prefer a future greater good to a smaller present good believe falsely that they are acting according to the free decision of their mind, and do not understand that they actually are carried away by impulse.

We can as our conclusion subscribe to that of the master himself in his letter to Schuller: "[I]f you will attentively examine my view, you will see

that it is entirely consistent." We subscribe, but add a qualification: we cannot *see* this consistency, but we can work out a consistent reconstruction on the basis of a set of plausible interpretations. At least, this is what I have tried to do.

### Summary Concerning Freedom of Decision

1. The immediate and spontaneous feeling of free choice and decision is a consciousness of our own *conatus*, our basic dynamics, and expressive of our own particular essence or nature. There is nothing illusory about this feeling.
2. The feeling of free choice is sometimes taken to be an indicator of the complete set of determinants of action. From this stems the illusion of complete or absolute freedom, in the sense of absolute self-causedness or total absence of causes.
3. The feeling of free choice is a genuine indicator of internal, not external, determinants.
4. The extent to which we are determined ("internally") by our nature or essence is a matter of degree. It is never total; it is never zero.
5. The way toward an increased level of freedom, that is, internal determination, is through clarification of our affects, by which means they are converted from passive to active emotions.

### General Summary

6. The thesis that Spinoza does not predicate freedom of human beings is false, as is the thesis that if he did, it would result in an inconsistency with his determinism.
7. *Freedom* and *determinism* are imprecise words with a variety of meanings, some of which are such that "*x* is free and *x* is determined" expresses or implies a contradiction, whereas others do not. Among the latter we find those best adapted to the text of the *Ethics*. These meanings have deep roots both in everyday thinking and in the thinking of philosophers before and after Spinoza.
8. Spinoza judges men to be more or less free and therefore also more or less unfree. There is no definite upper limit to human freedom, but it cannot ever be absolute as in God.

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9. The freedom that Spinoza proclaims to be realizable is one that is widely held in everyday life to be realizable: to be determined in our decisions from our *own* nature, from the depths of our soul, from the integrated action of our personalities, and not from pressures, external circumstances, or passions that overrun us; and of course not to act unintelligibly, unmotivatedly, chaotically, unaccountably, blindly, randomly, designlessly. When we judge ourselves free in this sense or these senses, we have not yet asserted anything about how we (since birth?) have developed into what we are: we are not speaking about remote causes *in time*. Neither does Spinoza in his judgment, but he stresses that external determinants are always in operation at any definite time, therefore also at the time of our birth—and before that.

10. Spinoza's determinism is one of essence, *complete determination of essential relations between things*. It is not a determination of particulars, dated or undated; it is not a doctrine of antedetermination. Spinoza does not defend any such doctrine nor does he criticize any. He was not seriously engaged by the problem. What I have attempted, therefore, is only to help a fly get out of a bottle.

## Through Spinoza to Mahāyāna Buddhism or Through Mahāyāna Buddhism to Spinoza?

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The increased interest in meditation and Mahāyāna Buddhism has resulted in a search for a philosophy that might be understandable in the West and reflect basic insights of the East. A philosophy inspired by Spinoza may be the answer—or one answer.

Jon Wetlesen (1978) has explored this possibility with great acumen. There are, however, pitfalls of interpretation and construction: one may make Spinoza too much the Buddhist or Buddhism too Spinozistic. I do not mean to suggest that this necessarily detracts from the value of the resulting edifice. The comparison of Buddhist versions of Spinoza and Spinozistic versions of Buddhism may lead us nearer to truth.

The Buddhist conceptions of a temporal, instantaneous, or absolute freedom may well be valid, but they do not render the gradualist conceptions less important for life. Sudden enlightenment of great depth must be anchored in a mature, integrated personality, and this entity takes a long time and intensive action to develop.

The distinction between external and internal action is fruitful, but a high level of activeness (causedness through oneself) is possible, and is needed to reach high levels of freedom (understanding, perfection).

The very conception of understanding in the *Ethics* points toward cognition-as-acts in a physical and social environment. Whatever the heuristic and cognitive value of meditation, insight for Spinoza is always

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insight expressed through an action, a “grasping” (the “lambano-logical” point of view).

### Spinoza Between East and West

The practice of meditation has increased by leaps and bounds in the materially rich Western industrial states in recent years. The teachers are on the whole from the East and are exponents of Eastern metaphysical theories. The attitude toward theorizing of those interested in the practice of meditation tends to be rather ambivalent—and for good reasons, as far as I can understand. The amount of woolly, talkative spirituality is staggering, and some excellent teachers of meditation may well be incompetent as exponents of classical Eastern metaphysics.

Persistent and serious practice of meditation, however, leads more or less inevitably to philosophical reflection. It is fortunate that in recent years an increasing number of researchers have combined deep study of the East with a thorough training in Western analytical and other trends. This means that serious practice of meditation in the West can now be combined with, and integrated into, a mature philosophical outlook that makes use of both Eastern and Western sources.

Spinoza occupies a unique position in Western academic textbook tradition. On the one hand, he is trustingly integrated into narrow Western traditions as one of the “great rationalists” of the seventeenth century. On the other hand, deep Jewish, mystical Middle Eastern influence has always been acknowledged by most specialists on Spinoza’s background. Part V of the *Ethics* represents, as far as I can understand, Middle Eastern wisdom par excellence. Spinoza fits in with Eastern traditions in a way that makes it highly unlikely that he can be completely absorbed by any of the major Western trends.

Among the contributions to a comparative study of Spinoza and Eastern traditions, the recent work of Wetlesen (1978) is in many ways outstanding. It combines a thorough knowledge of Spinoza’s system with a not inappreciable acquaintance with meditation and Mahāyāna Buddhism. The work’s greatest merit, however, is Wetlesen’s careful, explicit, and testable use of textual sources.

The result of his work is an exposition of major parts of Spinoza's philosophy that makes it a kind of Mahāyāna Buddhism in a broad sense. Or, if this is too crude a characterization, his work may be said to result in a Spinozistic system closely connected with certain central Mahāyāna texts. The Heart Sutra (*Prajñāpāramitā-hṛdaya-Sūtra*) is one of them (see Conze 1958).

Wetlesen's work is likely to be conceived as a transition from Spinoza to Mahāyāna. My comments argue for a dialectic turn back: Wetlesen furnishes a promising way of incorporating meditational practice and theory in a Spinozistic framework. Mahāyāna Buddhist texts are useful, perhaps indispensable, for this endeavor. In the end, though, the resulting *total view* will be closer to Spinoza's *Ethics* than to any Buddhist text.

Crucial for this turn back to Spinoza is my contention that Wetlesen underrates "life under the guidance of reason" and overrates the "tranquillity of meditation." Against "tranquillity" I propose the term *equanimity* as a more central one. Equanimity integrates internal and external balance, and shows itself in contexts of vigorous action. The mode of human nature exposed by Spinoza, as I understand him, is such that it is maximally expressed in the supremely active life—internally *and* externally, insofar as they can be distinguished at all according to Spinoza. In other words, whereas Wetlesen's Spinoza in the last analysis is markedly otherworldly and tender-minded (in the sense of William James), as I see him he combines marked this-worldly and tough-minded aspects with obvious tender-minded traits. The combination is highly precarious, but the system of Spinoza *is* highly precarious: its pretension is extreme insofar as it tries to address everything of lasting value in every major tradition, East and West, even when the values seem mutually, utterly inconsistent.

### Freedom<sub>1</sub>, Freedom<sub>2</sub>, Adequate Cognition, and Internality

Wetlesen distinguishes two conceptions of freedom, and two ways of freedom. Freedom<sub>1</sub> is absolute and there is no "way" to it in the sense that it is "already there." It is the "highest" kind of freedom. Freedom<sub>2</sub> is relative and gradual. It takes time and effort to reach high levels of freedom<sub>2</sub>. There is, according to Wetlesen, no continuity between these freedoms. Freedom<sub>1</sub> cannot develop from freedom<sub>2</sub>. Some quotations will make his point clearer.

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I believe that we must distinguish between two fundamentally different ways to freedom in the philosophy of Spinoza. Borrowing from related conceptions in Indian and Chinese philosophy, especially from Mahāyāna Buddhism, I shall call these two ways the gradual and the instantaneous strategies of liberation. For the greater part, this distinction is not made explicit in Spinoza's own exposition. . . . In some crucial contexts, however, he draws the distinction explicitly. If the former contexts are read in the light of the latter, we shall have an interpretation of Spinoza's ethics of freedom along the lines that I attempt to reconstruct here.

Spinoza appears to imply a distinction between two kinds of internal freedom, one absolute, the other relative. Internal freedom of the absolute kind presupposes an intuition of oneself and other beings in nature from the viewpoint of eternity. This cognition cannot be approached through a gradual strategy, since approximation presupposes a process of time, while the viewpoint of eternity has no relation to time, but is incommensurable with it. Nor is there any need for such an approximation, as this intuition is already there, constituting the very essence of the mind. The act of becoming conscious of this can, in one perspective, be described as a sudden enlightenment. From another perspective, however, the notion of suddenness is also seen to be misleading. For the enlightened person sees that freedom, in the absolute sense, consists not in becoming something that he is not, but in being what one is from eternity. As Spinoza says in the passage above, the sage is conscious of himself, of God and of things by a certain eternal necessity. The difference between the sage and the ignorant is therefore above all a difference in self-awareness.

(Wetlesen 1978: 3–4)

One of the trends of argumentation supporting these conclusions is based on Spinoza's theory of affects:

On applying the gradual strategies of liberation, a person may counteract those passions which are evil by means of other passions which are less evil, or which are good. Still, however, these antidotes are passions, and therefore the result will not be freedom in the absolute sense, since this requires that the strategies are based on actions. From this it seems to follow that freedom in the absolute sense cannot be achieved by means of a gradual strategy. This confirms once more what I said above concerning the relation between the gradual and the instantaneous strategies. Only the latter lead to freedom in the absolute sense, and are therefore more fundamental than the gradual strategies.

(Ibid., pp. 6–7)

Another trend takes account of the “internal” character of adequate cognition:

If Spinoza’s conception of adequate cognition is related to the viewpoint of eternity in the manner I suggest, then it seems reasonable to suppose that his conceptions of action and freedom must be primarily of an internal kind. The freedom of the sage consists in his power to conserve his being in this type of adequate cognition. His conation and cognition are adequately determined from within.

(Ibid., p. 24)

The concepts freedom<sub>1</sub> and freedom<sub>2</sub> are introduced using the above conceptions of actions and adequate cognition:

When action is determined from within the way mentioned, it can be called free in an absolute sense. It is not contingent upon external conditions. It pertains to man as an eternal being. I shall call this freedom<sub>1</sub>, and its contrary, which pertains to man as a temporal being, I shall call bondage<sub>1</sub>.

In addition to these conceptions Spinoza appears to have recognized a second kind of freedom and bondage, which may be called relative. They pertain to man as a temporal being, and relate to the degree of autonomy or heteronomy which a person may have in relation to his external environment. I shall designate these as freedom<sub>2</sub> and bondage<sub>2</sub>. They are subspecies of bondage<sub>1</sub>.

(Ibid.)

It is important to note that Werlesén associates externality with external environment, which includes other people, society, political institutions, and so on.

What the human condition really is, can only be understood from the viewpoint of eternity. To be ignorant of this viewpoint, is to be under bondage in the most fundamental sense, while to be aware of it, is to be internally free. This seems to be the foundation of his perennial wisdom.

(Ibid.)

It seems (anticipating some criticisms) that Werlesén identifies the absolute freedom of Spinoza with an intuitive insight of a very special kind (*not* identical with the third kind of cognition in Spinoza’s terminology). The third kind involves interaction with the environment—for example, behavior toward friends, making a decent living, polishing lenses.

If a concrete person living in a particular society is to be characterized as *being* absolutely free, this should characterize his total life. If the crucial *insight* is an isolated mental act of a person who otherwise, that is, in regard to freedom<sub>2</sub>, acts more or less as a slave, why should this person get the fabulous title of absolutely free? One of many basic questions is, *Does Spinoza consider it possible to be free<sub>1</sub> without being on a high level of freedom<sub>2</sub>*? If so, why call freedom<sub>1</sub> a *higher* freedom? What is particularly high in a person living like a slave? On the other hand, if freedom is indispensable, it takes time and effort to reach freedom<sub>1</sub>. Essential to Wetlesen's *definitions*, however, is that freedom<sub>1</sub> is there all the time, that is, even at a very low level of freedom<sub>2</sub>.

Put crudely, I doubt that Spinoza would accept any ideal or model of a free human being that is consistent with a low degree of freedom<sub>2</sub>. His description of people on a low level of freedom, his "slaves of passion," tyrants, people reacting with hatred, without generosity, and so on, does not suggest that he would call them free in *any* sense. Or if he would do so, he would mean a potential, not actualized freedom.

### Equanimity or Tranquillity?

The equanimity characterizing the free human being may be conceived either in terms of meditative tranquillity or as a basic steadiness in the face of the external strains and stresses of an active life. For example, a statesman (like Johan de Witt), a leader of an expedition through the jungle (like Livingston), or a *karmayogi* like Gandhi may have a high or a low degree of equanimity in "external action." Does Spinoza think of the sage as a meditative rather than a socially and otherwise active person? Wetlesen's interpretation goes in the first direction. I shall *argue* for the latter but not dogmatically assert its greater historical accuracy or correctness. The interpretation of Spinoza is an endless task.

My main argument is, paradoxically enough, inspired by the same variety of Mahāyāna Buddhism as is Wetlesen's: the teaching that the farther along the path to supreme levels of freedom a human being proceeds, the greater the identification and compassion and therefore the greater the effort to help others along the same path. This implies activity of social and political relevance. Gandhi, considering Buddhism to be a reformed Hin-

duism, furnishes a good example. His mistakes were many, but he tried through meditation of sorts (combined with fasting) to improve the quality of his action, especially his consistency in maintaining a broad and lofty perspective. He deplored the followers in his ashrams who spurned outward action and concentrated on metaphysics, meditation, and fasting. He conceived that as a kind of spiritual egotism. He did not recognize yoga meditation and prayer as an *adequate* way to insight, perfection, and freedom. Advance toward the highest levels requires interaction with the terrifying complexities of social life.

It is not against anything in the *Ethics* to suppose that *understanding acts*, cognitions internally joined with active affects and constituting interactions between body and environment (under the attribute of extension), are complex and comprehensive, like gestalts of higher order. Examples are highly complex projects such as writing the *Ethics*, preserving and deepening friendships, acting as a mentor or guru, administering a large monastery. As to the last gestalt, see the in-many-ways instructive *Born in Tibet*, by Chögyam Trungpa (1971).

If carried out in the spirit of eternity, the high level of “external” activity necessarily differs from that of a busybody. Retreats and meditation *may* be necessary in some cases, but this does not imply *tranquillity*, only concentration and equanimity. Wetlesen writes in a slightly different vein, it seems:

In the first place, it seems to be necessary for the person to be able to arrange his life in such a manner that he achieves certain periods of contemplative tranquillity. This, I believe, is implied by 5P10:

5P10

As long as we are not agitated by affects which are contrary to our nature do we have the power of ordering and connecting the affections of the body according to the order of the intellect.

Actually, two conditions are involved here: The person must achieve tranquillity in the sense of not being agitated by those affects which are contrary to his nature; and he must be able to understand things according to the order of the intellect. The first of these conditions requires, I suppose, that certain periods of seclusion must be set off for interior recollection, these being perhaps what we might call a sober type of mystical contemplation. At any rate, it will not do to be a busybody all the time. A certain detachment from temporal concerns is required now and again.

(Wetlesen 1978: 377)

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All this may be reasonable from a *pedagogical* point of view, as good advice from a guru. It will not do to be a busybody *anytime*. Activeness in the sense of Spinoza, however, requires integration and concentration, not tranquillity. Gandhi prayed and meditated even during hectic political meetings.

Spinoza's theory of the second and third kinds of cognition does not rule out the person's ability to uphold the point of view of reason and of eternity when acting "externally" in a social environment. Ideally the "free man" may do this *without* retreats to meditation and social isolation. My point is one of principle, not at all meant to weaken the pedagogical importance of these interludes or what Wetlesen would call the strategy of retreats and meditation. These are means, however, not ultimate needs.

### The Complexity of Intuition

Freedom<sub>1</sub> is adequate intuition of oneself and other beings in nature from the viewpoint of eternity as appears earlier in this article. More explicitly, "the highest freedom consists in an adequate cognition of man's own essence and existence through the essence and existence of God as his immanent cause."

Even if this insight is intuitive and in a sense eternal (which is difficult to grasp and convey in discursive, argumentative thought and articulation), I cannot see how it is something instantaneous. It is an extremely complex intuition, and we know from personal insights that such intuitions have a depth dimension.

Our first acquaintance with irrational numbers or Godel's theorem makes us perhaps use correctly some definitions and makes us capable of solving certain problems, but our depth of intention improves only slowly over years of study. There is an abyss of depth in everything fundamental. Moreover, structure persists even if we have the feeling of touching something absolutely simple.

My conclusion is clear: I cannot believe in the instantaneity of the intuition of freedom<sub>1</sub>, nor in its lack of an improvable depth dimension.

### Internality Implied by Absoluteness: Totality and Part

The requirement to act *in the strictest sense* from the laws of one's own nature, *only*, or to be *completely internally* caused seems to be satisfied only by God.<sup>1</sup>

As Wetlesen (1978: 30) points out, however, Spinoza certainly admits that some human beings are freer than others:

Should we conclude, then, that according to Spinoza, *freedom* is beyond the reach of man, and that it is the privilege of God alone? In a certain sense, this may well be what he means. Nevertheless, it must be interpreted in the light of other passages where Spinoza positively affirms that men may be *free*. I have already quoted 5P42Sch, where he contrasts the sage and the ignorant, and implies that the former enjoys freedom of mind. In 4P37Sch he draws a similar contrast between the truly virtuous and the impotent person, and in 4P66Sch between the free person and the slave.

Wetlesen adds a number of other quotations from the *Ethics*. I think one may safely assume that Spinoza thinks there are comparatively free human beings. Are there, however, *absolutely* free human beings? Yes, concludes Wetlesen. The argumentation is complex and precarious. It calls for somewhat extensive quotations.

God is absolutely infinite, and as a consequence is present in all his effects, and equally present in parts and wholes (cp. 2P45Dem, 46Dem).

For this reason the singular things in *natura naturata* cannot be separate substances. They are not really distinct from each other, but only modally; internally they are related to one another through their common immanent cause, God. In so far as a singular mode, such as a human being, cognizes himself and other modes in this manner, can he be absolutely free.

(Wetlesen 1978: 31)

One of the decisive points in this difficult argumentation seems to be that God expresses himself *totally* in every part or mode. “Totality” is also decisive in the following elaboration:

And when a singular mode is cognized through God as its adequate cause in this way, it is adequately cognized. This cognition embraces in one single grasp, as it were, the totality of those causes which generate the thing. Through this cognition a person can be said to internalize the immanent causality of God, and thereby to participate in the absolute freedom of God. . . .

Spinoza’s philosophy should therefore be considered as panentheistic, rather than pantheistic. However, in so far as a human being cognizes himself and other modes through their first cause, and sees that this is an immanent and free cause, and that it is infinite, eternal, and indivisible, he feels and experiences



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that this cause is totally present in himself, and equally present in the parts and in the whole of himself, and consequently he participates in its freedom.

(Wetlesen 1978: 32)

This freedom is absolute, but according to Spinoza, God does not share it with the modes—in spite of his immanence. We are therefore not closer to Wetlesen's freedom<sub>1</sub> in spite of his important interpretation of totality.

### Gradual Approach Necessary in Life

Wetlesen is, of course, aware of 4P4:

It cannot happen that a man should not be a part of nature, and that he should be able to suffer no changes save those which can be understood through his nature alone, and of which he is the adequate cause.

(Quoted in *ibid.*, p. 29)

If this is so, how can a human being be an absolutely *sole* cause of an action and a result of the action? Wetlesen uses his distinction between internal and external effects:

For even though it is impossible for a person to be an adequate cause of an external effect, he may be so of an internal effect. In that case the effect is internally determined by the nature of the agent, in so far as his nature is internally determined by God (cf. 5P30&Dem, 31&Dem). As Spinoza says in 4P68Sch, this may take place "in so far as we regard human nature alone or rather God, not in so far as he is infinite, but only in so far as he is the cause of man's existence." We should read this in the light of 2P45Sch: "For although each singular thing is determined by another singular thing to exist in a certain manner, yet the force by which each of them perseveres in its existence follows from the eternal necessity of the nature of God (see 1P24Cor)." (Ibid., pp. 32–33)

It seems that *a person*, according to Wetlesen, may remain in a state of absolute freedom provided all his acts are internal:

What kind of effects is it that such a free person can produce? I have already suggested that these effects must be purely internal, but what do they consist of? The answer, I believe, is to be found in this direction: If a person *cognizes* himself and all things adequately through God as the adequate and internal

cause, then the person will have a power to determine his further cognitions in such a way that they maintain themselves on this adequate level (2P40, 5P41&Dem). This cognition, moreover, will engender active affects, such as the intellectual love towards God (5P20Dem, 32Cor, 33Sch, 36Sch), and these active affects will be sufficiently strong to counteract the passions, and thereby to liberate the person from his bondage (4P20Sch, 38, 40, 42). I quote:

5P20Sch

From all this we easily conceive what is the power which clear and distinct cognition, and especially that third kind of cognition (2P47) whose foundation is the very cognition of God, can do with the affects, namely, that if it does not remove them entirely in so far as they are passions (5P3, 4Sch), at least it brings it about that they constitute the smallest part of the mind (5P14). Moreover, it begets a love towards an immutable and eternal thing (5P15) of which we are in truth partakers (2P45), and which therefore cannot be debased by the vices which are in common love, but which can always become greater and greater (5P15), and occupy the greatest part of the mind (5P16) and deeply affect it.

(Ibid., p. 33)

The quotation from Spinoza and the interpretation by Wetlesen confirm, as far as I can see, that a person can *reach* a continuous level of absolute freedom only gradually, turning passive affects into active. There is an ambiguity here: something is instantaneous and the person “has” it all the time, even if not aware of it, but there is also something that is gained gradually—I would say: gained through gain in freedom<sub>2</sub>.

Let us study the terminology in the following conclusion:

From the interpretation set forth here we may conclude, then, that absolute freedom is possible for man, but only to the extent that his actions have internal causes as well as internal effects. This is a complete self-determination, and therefore a freedom of the type which I call freedom<sub>1</sub>.

(Ibid., p. 34)

Seen from noneternal points of view, a person lives in time, and to say about a person that he or she is absolutely free would mean that he or she *remains* on a level of absolute freedom whatever the cognitions required. But some actions certainly have external causes or effects. Therefore, a person cannot be absolutely free. On the other hand, a person may maximize purely internal actions, and thus we get a graded notion of absolute freedom. In the terminology of Wetlesen, we would add to the last quotation:

A person increases his or her level of attainment of freedom<sub>1</sub> if, and only if, the extent to which his or her actions have internal causes and effects, increases.

Here freedom<sub>1</sub> *as a concept* is not subjected to grading, but a person's attainment of freedom<sub>1</sub>. The latter is the more important if we wish to *gain* freedom.

The impossibility of the gradual approach as a *sufficient* strategy to reach absolute freedom should be distinguished from the possibility that such an approach is a hindrance to reaching freedom<sub>1</sub>. Wetlesen seems to think that a person who strives to reach higher levels of freedom<sub>2</sub> ipso facto cannot reach freedom<sub>1</sub>. The person must stop trying! This might be good Buddhism, but is it good Spinozism?

[W]e may conclude that as long as a person strives to attain the ideals of his imagination, he will fail to attain freedom in the absolute sense. It makes no difference what kind of ideal he holds up for himself. . . . However, as long as a person adopts such an exemplary model as an end to be achieved in the future, he will be bound to a process of time. He may be freedom-bound, perfection-bound, intellect-bound, love-bound, and so forth; but in any case he will be time-bound. Therefore he will not be free in the absolute sense defined in 1D7, since that requires emancipation from time-binding.

(Wetlesen 1978: 388)

If previous comments are tenable, the likelihood that a person reaches conscious freedom<sub>1</sub> *increases* with increasing level of freedom<sub>2</sub>. There are no purely internal actions—the mind is not a container of acts; all acts are explicitly or implicitly environmental. At least, I cannot see how Wetlesen has succeeded in establishing his concept of purely internal acts.

It seems that Wetlesen has not always distinguished conceptual problems from life problems where that needs to be done. Personal problems are always “in time,” and therefore also *applications* of any concepts whatsoever to persons. The concept of eternity must be kept distinct from the criteria for determining whether a person *has* attained the viewpoint of eternity and *when*. It must also be distinguished from the criteria for determining to what extent this viewpoint has been attained. However, all this need not affect the *concept* of eternity. The concept can be retained in its nongraduated form.

Suppose a person has maximally attained the viewpoint of eternity. He

or she will nevertheless, if a *karmayogi* or a bodhisattva, act, with increasing understanding, in the temporal environment and thus carry out cognitions in part based upon the activity of the imagination.

Perhaps this is completely in agreement with Wetlesen's conceptions, but then the above quotation from his work is misleading.

### **Absolute Freedom Through Cognition Only of Our Own Mind; Closeness of Mind to God**

From this closeness of mind to God, Wetlesen proceeds to argue for freedom or even salvation through cognition of oneself alone:

The highest freedom of man, which is nothing else than his salvation, consists in an adequate cognition of his own essence and existence through the essence and existence of God as his immanent cause (cp. 5P36Sch).

(Ibid., p. 75)

The evidence of 5P36Sch does not corroborate Wetlesen's thesis very strongly. Adequate cognition of one's own essence and existence is a time-consuming thing. We have to understand our passions and transform them into active emotions like generosity toward those who hate us.

It is no easy affair even to find out that an affect we have is not active, but passive. One of the ways is orthodox psychoanalysis. It is not possible, or only very rarely possible, to carry through such an analysis alone. There are other methods, but no shortcuts, it seems. God has *not* provided shortcuts. Wetlesen's strategy of attainment of freedom<sub>1</sub> is said to be instantaneous, but it seems to imply that we arrive gradually and painfully at a clearer and clearer understanding of more and more of our affects. It is not done in a general way, but with each affect taken separately. Wetlesen cites

Spinoza's ways of formulating the first two remedies against the passions, which he summarizes in 5P20Sch. The first step consists in this:

5P20Sch

It appears from this that the power of the mind over the affects consists:

1. In the cognition itself of the affects (5P4Sch).

That is to say, it consists in a reflection on the cognitive and affective acts, thereby forming a clear and distinct idea of them. The second step, moreover, is described in this way:

5P20Sch

2. In the separation by the mind of the affects from the thought of an external cause, which we imagine confusedly (5P2 and 4Sch).

When cognitive objects, as well as their affective coloring, are seen in this way, they are no longer hypostasized as external ontological realities, that is to say, they are not assumed to be transcendent things, but are seen to be projected by the consciousness itself. Furthermore, they may be understood through their immanent and adequate causes, and thereby cognized adequately. At this point, however, we move away from the phenomenological attitude of Husserl and into the ontological attitude of Spinoza. But this kind of ontology has nothing to do with the assumption of external objects. It consists in seeing all modes as the effects of the immanent causality of God. When a person has attained this degree of self-knowledge, his faculty of imagination is free, as Spinoza says in 2P17Sch. It then depends on his own nature alone. He lives entirely in this immanent field of his transcendental consciousness, as Husserl would say. He is mindful that his life-world is constituted through his own imaginations and affects, and through this awareness he neutralizes the binding effect of his own projections, thus remaining internally free.

(Wetlesen 1978: 361–62)

What is not convincing is that the “seeing *all modes* as the effects of the immanent causality of God” (my italics) can constitute one single set of seeing. What about our own passions, race prejudices, ambition of understanding Spinoza? We certainly do not have the ability instantaneously to understand *each* of the passive affects so that we get a clear picture of their origins—and not just a *general notion* of their dependence on natural laws and God as their immanent cause. Spinoza scarcely recognizes *general* knowledge of passions as a liberating force. Passions as “confused ideas” are not turned into clear ones wholesale. This implies gradual, not instantaneous freedom. The belief in sudden, definitive illumination of the life-world (*Lebenswelt*) goes against the realism of Spinoza and his critical attitude toward revelation in religion and otherwise.

### Enlightenment Happens in Time, but Does Not Develop out of Nonfreedom

The instantaneity of absolute freedom gets to be somewhat mystical in a bad sense if we cannot say that a person attained it or attained conscious-

ness of it at a definite time or within a definite time interval, for example “sometime between ages  $x$  and  $y$ .”

{W}e must beware of not construing the transition from bondage to freedom as a transition from inadequate cognition and passive affects to adequate cognition and active affects as if the latter emerged at a certain moment of time. For it is impossible that the latter could develop out of the former (cp. 2P41 and 5P28, together with 3P1 and 3). If adequate cognition and active affects can be actualized in a person at all, they must be potentially there from the beginning.

(Ibid., p. 389)

That something develops *out of* something else is a much stronger assertion than that the one was a necessary condition of the other. Beethoven's music was a kind of necessary condition for Schubert's music, but genuinely new things are present in the latter. One cannot say that what Schubert did developed *out of* what Beethoven did. Adequate cognition of something may emerge *after* degrees of inadequate cognition “of the same,” and thus be fixed in the time order, without our assuming that the adequate *developed out of* the inadequate, like an adult from its imago.

A person undergoes development in time. There is a transition from one phase to another. New traits form; old ones vanish. One kind of transition is from a lower to a higher level of perfection; it is at the same time a transition to a higher level of freedom. This transition is also a transition to more adequate cognition and more active affects.<sup>2</sup>

We cannot understand the development of a person except by taking into account many parts of the body and many parts of the mind, and only when considering the person as a part or fragment of Nature. Thus, I agree that adequate knowledge does not develop *out of* inadequate. The further inferences made by Wetlesen on the basis of this insight seem unwarranted, however.

Writing about the absolute freedom to an audience that has not attained, or is not conscious of, absolute freedom presupposes that attainment of such (conscious) freedom *happens to a person*—that is, can be fixed in time. This does not exclude that the writer and the audience later agree that the time dimension is irrelevant or unreal. Having attained and retained that view, they are then clearer about the view of eternity. This state of affairs cannot be anticipated, however.

In the following passage Wetlesen makes a concession, it seems, in the direction of the above remarks.

So also may the viewpoint of eternity suddenly break forth to the conscious awareness of the mind, calm and clear, when the hindrances are removed.

When this enlightenment has been attained, the person will know that in reality, and from eternity, he is free in the absolute sense. His freedom, in this sense, is an eternal truth and absolute necessity. However, if this be so, then it implies that he must reevaluate his former conceptions about himself and about the human condition in general with regard to bondage and freedom, as well as the transition from the one to the other. . . . In so far as he cognizes the whole situation adequately from the viewpoint of eternity, he knows that his portrait of himself, as presented by the imagination and the memory, in a certain sense is an illusion. It does not tell what he really is, and is nothing but a mode of cognition, or an entity of the imagination.

(Wetlesen 1978: 390–91)

The viewpoint of eternity “may suddenly break forth,” that is, sometime *within* the time order. When this viewpoint gets to be conscious, the biography of the enlightened person looks quite different. This can be understood. The points of reference will be different—“all” will be different. It might be compared to what happens after a religious conversion, or when a person rather suddenly moves from communism to anticommunism (Koestler and others). I think it is important to concede this, and to stress *discontinuity*. There is a “jump” in the Kierkegaardian sense, or in a sense related to his.

All this may be conceded. Its relation, however, to Spinoza’s conception of freedom remains unclear—unclear, to me, both in the use of the term *absolute freedom* and in its status as “higher” than any freedom attained gradually. The formulation “The person *P* is eternally, absolutely free and has never been otherwise” is an unhappy one outside Buddhism. The quotations from Spinoza that Wetlesen uses to support such a formulation are compatible with the decision to leave it out. 5P31Sch is compatible with the theory of gradual enlightenment:

The stronger every one is in this kind of cognition, the more he is conscious (*conscious*) of himself and of God, that is to say, the more perfect and blessed he is, which will appear still more clearly from the following. Here, however, it is to be observed that although we are now certain that the mind is eternal in so

far as it conceives things from the viewpoint of eternity, yet, in order that what we wish to prove may be more easily explained and better understood, we shall consider the mind, as we have hitherto done, as if it had just begun to be (*tanquam jam inciperet esse*), and had just begun to understand things from the viewpoint of eternity. This we can do without any risk of error, provided only we are careful to conclude nothing except from clear premises.

(Quoted in *ibid.*, p. 391)

Conclusion: the absolute freedom<sub>1</sub> is foreign to Spinoza's system.

### Wide and Narrow Concepts of Grading

The distinction between graded and ungraded calls for some clarification. A grading *need not be continuous*. Hardness of minerals is graded—for example, “scratchable with a fingernail,” “scratchable with a steel knife,” “scratchable with a diamond.” A person may be said to gain in rationality when he or she behaves rationally in more kinds of life situations, and is less rational in none. There is not, however, a continuous transition from one situation to another, from one behavior to another, or from an inadequate cognition to another inadequate one, or to an adequate one. There may be abrupt changes, wild leaps. Nevertheless, a person may be said to develop and change gradually. The transition may be discontinuous and there may be only two grades.

Either a cognition is adequate, that is, complete, or it is inadequate, that is, incomplete or not complete. If absolute freedom is correlated with adequate cognition, and its contrary with inadequate cognition, it would seem to follow that the distinction between freedom and bondage must also be dichotomous.

(*Ibid.*, p. 395)

Here it seems that Wetlesen does not distinguish between conceptual relations and life relations. A conceptual dichotomy does not itself permit grading—this is true by definition—but as soon as it is asked *to what extent* a person cognizes adequately or inadequately, a grading is possible. Spinoza uses grading, this in spite of a rigid nongradual distinction between adequate and not adequate. There is also a place for grading the clarity, depth, and other characteristics of *an act of* adequate cognition. Grading is accepted here by Wetlesen himself:



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[I]t may be possible for a person to be more or less conscious of the adequate cognition which constitutes the essence of his mind from eternity.

... we may speak of degrees of freedom<sub>1</sub> after all, these degrees being in a one-to-one correspondence with the clarity of the conscious awareness which the mind *has* of the adequate cognition which it from eternity *is*.

(Wetlesen 1978: 395–96)

In his argumentation, however, Wetlesen sometimes tends to adopt or imply narrow conceptions of grading. For example, in the following quotation grading seems to imply a quantitative element. Grading, though, is an ordering of qualities. Wetlesen himself says that freedom<sub>1</sub> is *higher than* freedom<sub>2</sub>. The distinction between first, second, and third kinds of knowledge involves (among other things) a grading. About the third, Wetlesen says:

However, not all persons are conscious of it, and those who are, do not have an equally clear and distinct idea of it. This degree of conscious awareness and clarity brings in a quantitative element, which makes it possible to talk about degrees of freedom after all. However, in this latter case we talk about degrees of freedom<sub>2</sub>, and not about degrees of absolute freedom, which would sound rather queer in any case.

(Ibid., p. 396)

What Wetlesen says here about gradual strategies suits a rather narrow concept: a “quantitative element” makes it possible to talk about degrees. In part because of his tendency to associate degrees with quantification, he attributes negative characteristics to the “gradual strategy of liberation.” Such strategies, however, require *wide* concepts of grading, concepts in which discontinuities are not excluded. Higher levels of understanding do not develop “out of” the lower. New qualities appear abruptly.<sup>3</sup>

## Spinoza's Way and Buddhist Meditation

Wetlesen establishes some important parallels between Spinoza and Buddhism:

As mentioned earlier, it appears that Spinoza's chief remedy against the passions (cp. 5P4Sch quoted above) has a close affinity to Buddhist insight meditation (*vipassana-bhavana*). Like insight meditation it starts with a certain

kind of mindfulness or awareness; it goes on to a particular kind of insight concerning the ontological status of external things, and culminates in that kind of adequate cognition, or wisdom, which alone can liberate a person in the absolute sense.

I believe the first of these points is brought out quite clearly in 5P3&Dem&Cor and 5P4:

5P3&Dem&Cor

An affect which is a passion ceases to be a passion as soon as we form a clear and distinct idea of it.

An affect which is a passion is a confused idea (3AffGenD). If, therefore, we form a clear and distinct idea of this affect, the idea will not be distinguished from this affect, except by reason, in so far as the affect is referred to the mind alone (2P21&Sch), and therefore (3P3) the affect will cease to be a passion.

The better we are aware of an affect (*quo nobis est notior*), the more it is within our power, and the less the mind suffers from it.

5P4

There is no affection of the body of which we cannot form some clear and distinct conception.

The second point I think is brought out in 5P2, which I quoted at the beginning of this section [ibid., p. 198].

If a person clearly and distinctly sees that his perceptions of things and egos in his life world are projections of his own imagination, he will develop what the Buddhists call insight, namely insight into the impermanence of things (*anicca*) and the unsubstantiality of egos (*anattā*). Thereby he overcomes the ignorance (*avijjā*) which was a necessary condition for his bondage under the passions (*dukkha*), and attains freedom instead.

(Ibid., pp. 198–99)

So far as I can see, Spinoza *can* plausibly be interpreted as Wetlesen suggests. It is an important, worthwhile interpretation. It makes it possible to accommodate central parts of Buddhist theory and practice within a philosophical framework keenly studied in the West (cf. ibid., p. 200).

In fairness to Buddhist traditions we must keep in mind that they contain a rich variety of conceptions, and that we are here dealing with only one.

What I am now going to say is not an argument against Wetlesen's interpretation, but an alternative.

The work required to get "a clear and distinct idea of a passion" may be, and has been, conceived as an analysis of the kind worked out by Freud

and later “depth” psychologists. At least so much is established, that for a person to get a deep insight into an affective-cognitive complex acquired in infancy is extremely difficult and takes a long time. The trust in substantial egos and permanent things is acquired in infancy. The Buddhist theory of nonsubstantiality (as interpreted by Wetlesen) undermines or destroys conceptual frameworks acquired in infancy. So, it seems very strange, from the point of view of psychology, that any kind of *instantaneous* clearness could be brought about. More likely, there may be a gradual and partial elucidation of passions. This does not preclude that a high degree of clearness may all of a sudden break through the barriers to invade consciousness. We know of such happenings from the study of religious conversion. (Deception is, however, more frequent than genuine sudden change of personality.)

What insight meditation might bring about is a sudden, fundamental change of *the general conscious, abstract conception of the world and the ego*. The particular cognitive-conative complexes are largely left as they are, but they are somehow seen at a distance even in the personal interactions of the sage with his disciples and the community. Spinoza *may* be interpreted in harmony with this—but it strikes me as unlikely that *any* change in the abstract *conception* of the world and the ego can permanently change the person. We have to observe behavior and attitudes during work in the community. The new conception may be an inspiration and a source of strong motivation, but it would normally take years, I think, to change the structure of the interaction between person and environment. Human beings cannot, however, gain deep conceptions independently of such structures. We show our most genuine conceptions in action. The rest is likely to be dishonest or superficial.

The levels of freedom in the sense of Spinoza have to do with a multiplicity of like relations. Whatever the intensity and depth of an instantaneous experience, one's genuine conceptions change only gradually.

Absolute freedom is possible to the extent that one's actions have *internal* causes and *internal* effects, according to Wetlesen. Interaction with the environment continues as before, however, or with even more pervasive external causes and effects if the sage gets a worldwide following. Spinoza's idea of disconnecting passions from external objects does not entail a kind

of life within the self. The status of self is precarious anyhow, both for Spinoza and for Mahāyāna Buddhism.

### Concluding Remarks

The many theses or hypotheses put forth by Wetlesen are supported explicitly through careful references to the works of Spinoza and others. A serious attempt to maintain opposite views ought to use the same excellent technique.

The foregoing has not consistently been such an attempt. It has the aim to make some of the hypotheses better known and to suggest alternative interpretations.

The supremely free human being according to Wetlesen's Spinoza is one of introvert tranquillity. The foregoing comments favor an activist interpretation: the free human being is a wise human being permanently and with increasing momentum on the road to still higher levels of freedom. The supremely free shows perfect equanimity, forceful, rich, and deep affects, and is active in a great varieties of ways, corresponding to the many "parts of the body," and all of them bound up with increasing understanding—and certainly including social and political acts.

Meditative tranquillity may be one of the free human being's methods for getting freer, but not a stable characteristic of his or her life.

This image of the sage has in common with (a certain variety of) Mahāyāna Buddhism the idea that the higher the level of freedom reached by an individual, the more difficult it becomes to increase the level without increasing that of all other beings, human and nonhuman. The obstacle to individualistic freedom is deep-seated solidarity. It again rests on identification with all beings. The individual self develops into the universal self. (In general "relationism," the term *self* can, and ought to, be avoided.)

The trend of reasoning pursued by Wetlesen leads also toward Mahāyāna Buddhism in the sense that the highest freedom cannot be a lonely freedom, or rather, it is not a freedom that can be reached going alone, and consummated alone. What I am objecting to is the conception of an absolute instantaneous freedom that is supposed to be *higher* than the freedom

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of the wise human being supremely active through a development reached not without painful labor and danger.

I wish to add to this conclusion that various methods of meditation developed within Mahāyāna Buddhism might be accounted for within the framework of a Spinozistic philosophy. Considering the growing appreciation of serious meditational practices in the West, the possibility of conceiving them within the broad and deep framework of such a philosophy must be greeted with joy.

## An Application of Empirical Argumentation Analysis to Spinoza's *Ethics*

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### The Propositions of the *Ethics* Conceived of as Arguments in a Debate

Nobody today maintains that Spinoza is not an original philosopher. Nevertheless, Harry Austryn Wolfson (1958)—that extremely learned historian of ideas—set himself the task of finding out which sources Spinoza used, or may have used, in formulating each detail of his main work, the *Ethics*. With extraordinary success, Wolfson traced *influences* on Spinoza's formulations. One task of argumentation analysis is to transfer the historian's results, which are formulated in terms of influences, into a rich set of patterns of argumentation. This is a task of hypothetical reconstruction. It clarifies the cognitive content of a historical text by pointing out contrasts and by explicating agreements and disagreements. It rejects the existence of sovereign pronouncements made in a kind of communicational vacuum.

Although *influence* is primarily a causal term, it also has wider connotations, including the transfer of opinion through verbal deliberation and argumentation. Wolfson's conclusion is that Spinoza, perhaps more than any other great philosopher, picked up opinions from others, but that he never did so slavishly. He subtly changed *everything* in his own direction. Thus, when studied deeply, every single proposition in the *Ethics* is seen to have a

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distinctive Spinozist color or flavor. It is, in my opinion, as if to Descartes, to Hobbes, and to a host of other thinkers, Spinoza has said “Yes, but. . . .”

Furthermore, I take Spinoza to have had an intensive intuition concerning existence in general, a genuine *Weltanschauung* (stressing *Schauen*), which simplifies many things and which unifies his own views.

With these two assumptions in mind—the Wolfsonian assumption of “Yes, but. . . .” and my own assumption of a unifying and simplifying intuition—I shall now comment on the vast set of theses of equivalence in the *Ethics*.

### Spinoza’s Theses of Equivalence

Spinoza connects about ninety basic terms in his *Ethics* by means of a great number of theses containing what I shall call *expressions of equivalence*:

*A* is one and the same thing as *B*  
*A*, which is the same as *B*  
*A* is nothing other than *B*  
*A* cannot be anything other than *B*  
*A* signifies the same as *B*  
*A* and *B* signify the same  
 By *A* and *B* I understand the same  
*A* is called *B*  
*A*, that is, *B*  
 We say *A* when *B*

Some expressions I classify as expressions of equivalence even though they do not always suggest a close relation between *A* and *B*:

<i>A</i> or <i>B</i>	as in	<i>Deus sive Natura</i>
<i>A</i> or <i>B</i>	as in	<i>Causa seu ratio</i>

If all sentences containing straightforward equivalence expressions are marked by “*A* eq *B*,” it is clear that they make up a large class of important formulations in the *Ethics*. A list of about 250 equivalences (Naess 1974a) is still not a complete list. Each of the following eight central terms occurs either as *A* or as *B* in more than fifteen sentences of equivalence: *causa*, *Deus*, *essentia*, *idea*, *natura* (or *Natura*), *potentia*, *ratio*, *virtus*.

If it is tentatively accepted that such relations of equivalence are transitive, then a vast network of equivalences is created.

Sentences expressing equivalence occur in great numbers in Spinoza's proofs and thus are clearly indispensable in his argumentations. Of sixty-seven equivalences extracted from propositions 1 to 73 in part IV of the *Ethics*, fifty-seven are made use of in proofs.

In a list of equivalences in this set of ninety basic terms:

<i>aeternitas</i>	occurs in	5	equivalences
<i>affectus</i>	"	19	"
<i>amor</i>	"	10	"
<i>anima</i>	"	8	"
<i>beatitudo</i>	"	8	"
<i>bonum</i>	"	7	"
<i>causa</i>	"	22	"
<i>cognitio</i>	"	19	"
<i>conatus</i>	"	16	"

It should be noticed, however, that some of Spinoza's equivalences do not really help us much to understand what he means. The frequently found expression *causa seu ratio*, traditionally translated as "cause or reason," is an example. It functions today mainly to remind us of the differences in meaning of *causa* and *ratio* in Spinoza's time of vis-à-vis the usages of *cause* and *reason* today.

The strings of equivalences  $A \text{ eq } B, B \text{ eq } C, C \text{ eq } D \dots$  are of particular interest from the point of view of simplification and univocality. I shall give an example involving the words *virtus*, *potentia*, *conatus*, *essentia*. The numbers in column 1 refer to the list that appears previously in this article.

Equivalence No.	Found In
53	Part 3, Prop 7, Demonstratio
59	3, P9, Scholium
71	3, P55, Sch
72	3, P55, Cor 2, Dem
91	4, Def 8
120	4, P33, Dem
122	4, P52, Dem
150	4, App 3
174	5, P4, Sch
240	5, P41, Dem
241	5, P42, Dem



From this tabulation it is seen that *virtus* occurs in five different equivalences. These five equivalent expressions are connected with yet others. If the equivalences (except a small number of them) are taken seriously as statements of extensional equivalences obeying the law of transitivity, there is a possibility of vast simplification of the articulation of Spinoza's system. If " $A \text{ eq } B \text{ eq } C$ " is taken to imply substitutability, new versions of the *Ethics* may be constructed: one in which *A* has been inserted where we now find *B* or *C*, another in which *B* is written where now *A* and *C* occur, and so on. Depending on the way in which the terminological reduction is carried out, one obtains different versions, or reconstructions, of the system.

For example, the terms *power* and *virtue* are connected with several strong expressions of equivalence. There is also an equivalence between *virtue* and *love of God*. In the proof of theorem 42 in part V, it is said that love of God (*amor erga Deum*) is virtue itself (*ipsa virtus est*). Now, if in the *Ethics* we put the term *virtue* wherever we find *power*, we get a text that sounds very Christian and very tender-minded (in the sense of William James). If, on the other hand, we substitute *power* for *virtue* everywhere, we get a text sounding like Machiavelli or Thomas Hobbes, and very tough-minded (in the sense of William James).

The so-called rationalism of Spinoza can be constructed by taking *ratio* as a kind of primitive term and using some of the above equivalences to define other terms in terms of *ratio*. On the other hand, one may start with *amor erga Deum* and use the above equivalences to construct a kind of religious mysticism.

For several reasons, neither of these new texts brings us nearer to the system as intended by Spinoza. One reason is that *few equivalences are intended to be as strong as is required for substitutability*. Another reason is of a still more fundamental character: it may have been Spinoza's intention to suggest that behind, or beyond, a pair of terms said by him to be equivalent there is a single reality that can, and must, be approached through the differing connotations of each of the two terms.

Through the two attributes of extension and thought, human cognition grasps the one substance. Both avenues are essential for human cognition of what "is in itself." Each of them contributes to this. A limitation on one of them would make human cognition a poorer instrument, even though each attribute is supposed to be a complete expression of substance or God.

In an analogous manner, one may explain the intended functions of many of the theses of equivalence in the *Ethics*. Thus the power terminology refers to a reality that is also referred to by the virtue terminology and the self-causation terminology; yet to restrict the exposition of the system by eliminating the last two terminologies would restrict unnecessarily our apprehension of that reality—so he may have thought.

Whatever the merits of a partial explanation in this vein of Spinoza's use of equivalences, it does not lessen the relevance and importance of an approach by argumentation analysis.

### Equivalences as Arguments

The text of the *Ethics* can be seen as a set of answers to questions raised by Spinoza's contemporaries, forcing him to adopt the terminology of his time. The function of Spinoza's equivalences in argumentation may be illustrated by short dialogues between opponents (Op) and Spinoza (Sp):

Op: Mr. Spinoza! According to my religion, a human being may attain a state of glory (*gloria*). You have nothing to say about glory, however, nor does your philosophy permit you to attain glory. What do you have to say to that?

Sp: The glory you talk about is *the same as* genuine self-satisfaction or peace of mind (*acquiescentia in se ipso, animi acquiescentia*). (VP36Sch)

The questioner is thereby referred back to one of the themes about which, in the *Ethics*, Spinoza says a great deal.

Op: I understand what you say about men's love for God, but what about God's love for human beings? In my religion we draw comfort from meditating on a God who loves us. Your philosophy does not permit you to indulge in a loving God, and that illustrates the difference between a warm religion and a cold philosophy.

Sp: "God's love for men and the understanding love of the mind for God are one and the same." (VP36Cor)

In this last quotation, I have translated *intellectualis* as “understanding” because the term *intellectual* is heavily charged with modern, narrow conceptions of the intellect.

Spinoza’s answer is, of course, not very enlightening for a religious person, but it certainly brings a complex of theological problems—viz., those concerning God’s love of humanity—within the circle of Spinoza’s explicit and carefully worked out philosophy of the third kind of knowing, the intuitive.

*Op*: Descartes distinguishes clear and distinct ideas from the confused. You seem to presuppose certain criteria of clarity and distinctiveness, for you use these expressions profusely in your *Ethics* without explaining them. Thus your *Ethics* is fragmentary.

*Sp*: Genuinely clear and distinct ideas are those and only those “that refer to the third kind of knowledge.” (VP28Dem)

Again, Spinoza brings an important range of problems within the circle of those problems that he treats in some detail.

*Op*: You speak favorably about seeking what is useful to us, and you explain in detail what it implies. What is needed, however, is a similarly deep-founded teaching on how to live virtuously. You lack that: you cannot satisfy those who are striving to attain virtue.

*Sp*: “The foremost and only principle of virtue or of the right way of living is the search for that which is useful for us.” (VP41Dem)

In this example, it is presupposed that Spinoza has already formulated many propositions on seeking what is useful but that he has not yet formulated any propositions on virtue. Through his answer, he now furnishes his opponents with a theory of virtue. The fight for virtue is a fight for what is “really” useful. As we can see from parts IV and V of the *Ethics*, what is “really” useful in his terminology is such behavior as we today would on the whole classify as virtuous (in the sense of being at a high ethical level).

Now consider the possibility that Spinoza has already formulated, more or less completely, his theorems on virtue, but not those on seeking what is useful. The opponent may then object:

*Op:* You have lofty theorems on virtue, but as a sympathizer with Thomas Hobbes and a believer in the fundamental principle of self-preservation, I miss a more realistic ethics as part of your philosophy.

*Sp:* The principle of seeking what is useful for us *is* the principle of virtue and the right way of living. There is no other principle.

Again, Spinoza delivers the goods. He is able to do so because his basic intuitions allow for a vast simplification of metaphysics. He cannot, however, express it through a small number of terms; he *must include all the basic terms of all his opponents and rivals*. Or, not talking in the terms of argumentation analysis, he must include all the important terms of the different traditions and paradigms he is reacting to—in part favorably, saying yes, and in part less favorably, saying “Yes, but . . .” (and rarely, or never, saying no).

He implicitly says “Come to me! Whatever good and true there is in your own worldview, you will find also in my philosophy. Whatever is bad or misleading in your own view, you will get rid of with my help.”

The *Ethics* is a small book about big issues. It ranges over ontology, epistemology, basic physics (between IIP13 and IIP14), basic parts of psychology, some general sociology and pedagogics and, of course, a lot of ethics. Furthermore, it contains theology in the sense of doctrines about God, as well as some sociology of religion and morals.

How was it possible for Spinoza to furnish deep answers to the formidable variety of questions that were *asked* in his own time about all those themes? The question is pertinent because his aim was to convince the people of his own time and his own environment to *change* to some extent their opinions on practically all fundamental problems.

Tentative answer: by means of his theses of equivalence.

One aim of this paper has been to exemplify a combined interest in speculative philosophy and an empirical, “positivistic” analysis of argumentation. The understanding of a great philosophy such as that of Spinoza poses a variety of semantical and argumentational problems. In the above, it has been possible to illustrate only a very special application. It should, however, need little reflection to imagine the possibilities of fruitful applications of, among other things, the various tools mentioned in my article, “A Necessary Component of Logic: Empirical Argumentation and Analysis” (in SWAN VIII).

## Spinoza's Finite God

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In interpreting Spinoza there is a trend going back at least to Fichte and Hegel that lets the individual disappear or “melt” in the substance or in timeless being. Kolakowski even talks about a suicide—a murder of self—and mystical destruction of self (*Selbstzerstörung*).

One of the presuppositions of this kind of interpretation is that of taking part I of the *Ethics* as regulative for the other parts. If a proposition of part IV or V is inconsistent with a particular interpretation of part I, the principle of consistency accordingly would demand a change in the latter parts, not in part I. Just as in a system in mathematics, however, one may ask which interpretations in an early part would make a theorem in later parts consistent with the whole.

In part I free/unfree seems to express an absolute dichotomy, God being the only free entity. In the last part, however, some human beings are called free, and freedom and self-determination are predicates admitting more or less. Considering the system as a whole, I have in what follows attributed equal weight to all parts of the *Ethics*. It seems then possible to attribute a high ontological status to particular things and especially to the human person. I shall concentrate on the relation between Spinoza's God and particulars.

First, though, I need to mention certain questions concerning the understandability or availability of Spinoza's system today.

Martial Gueroult's very learned interpretation of part I of the *Ethics* is expressed in a compact text, 586 pages long (Gueroult 1968). If he had been able to cover all five parts, I suspect his text would have run to at least 3,000

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pages. A great number of difficult terms and passages of part I are explained—but in terms of what?

Unfortunately, the explanans expressions are on the whole no more easily understandable *today* than the explanatum expressions. They primarily give explanations that Spinoza himself might have accepted as in harmony with his own views and terminological preferences, but twentieth-century European readers ask for explanations that both are acceptable in terms of Spinoza's intentions and are, as a whole, understandable today. I am afraid this is asking for too much.

Against this manner of putting it, it might be argued that the way to understand Spinoza's text in its strictly intended meaning is to study the seventeenth-century situation of Spinoza so deeply that, perhaps after many years of concentrated effort, one is, in a certain sense, able to think, feel, and talk like Spinoza. Like many others, I would be delighted to contact such *replicas* of Spinoza's mind. I would attentively study the behavior of such persons in our modern context, and I would of course have innumerable questions to ask.

Unfortunately, I do not see how we could expect wholly understandable answers from such persons. Conceivably, answers would resemble those of Gueroult or other (intrasystemic) systematizations. That would not satisfy me.

Let us for illustration inspect a passage from Gueroult's *Spinoza I*.

Gueroult stresses again and again the incommensurability between the universe, or the finite and infinite modes, and God. Nevertheless, the complicated, carefully written section 7 of his chapter on God as cause, ends with a very simple illustration.

L'incommensurabilité entre l'univers et Dieu n'implique donc pas leur dualité comme êtres extérieurs l'un à l'autre. De plus, elle est ici seulement celle de l'effet à sa cause, et non, comme dans la théologie traditionnelle, celle du fini à l'infini, de l'imparfait au parfait, dont entre eux la proportion est nulle. Il y a, au contraire, sous ce rapport, stricte égalité entre Dieu et l'univers, de par l'identité d'être de la Nature Naturante et de la Nature Naturée, celle-ci étant, tout autant que celle-là, infiniment infinie et parfaite. Pas plus que les modes ne sont *quelque chose de plus s'ajouterait à Dieu*<sup>a</sup>, ils ne sont, pris dans leur infinité infiniment infinie, *quelque chose de moins*, en quoi Dieu déchoirait<sup>a</sup>. Ce sont véritablement les deux faces de la même médaille.

(Gueroult 1968)

How much am I able to understand of these explanations, even after years of studying the seventeenth century and Spinoza? Primarily that a medal has two faces, perhaps each very different from the other, but nevertheless inseparable from the medal as such and as a whole. Perhaps I have understood how the faces can be faces of the medal without being parts of it—but this is all I understand. The exact status of God, as described in the quoted passage, I do not understand.

Commenting on IP25Sch (part I of the *Ethics*, Proposition 25, Scholium), “God should be said to be cause of things in the same sense as he is said to be cause of himself,” Gueroult says:

De toute évidence, cette thèse n'est concevable que parce que les choses produites, étant tenues pour des propriétés inhérentes à Dieu, sont dans cette mesure Dieu même, si bien que Dieu ne peut se causer sans *ipso facto* les causer elles aussi.

(Ibid.)

The kind of conceivability here asserted by Gueroult is a hypothetical one: “if you know the sense of ‘God causes himself’ (and certain other expressions), then you can conceive that God should be said to be cause of things in the same sense that he is said to be cause of himself.” Mostly, what Gueroult does (and most other experts do) is to assert hypothetical conceivability, understandability of a text unit, presupposing that other units of just as doubtful conceivability for a modern reader are already conceived or understood.

From this I do not conclude that it is pointless to study the text of the *Ethics* or of Gueroult. My quotations from Gueroult I use in defense of a freer attitude toward the text of the *Ethics*. I defend the use of the text to formulate points of view that might not be intended by or even acceptable to Spinoza, but that are based on more or less plausible interpretations of parts or the whole of his system.

One such point of view: the existence, operations, and essence of God are *dependent upon* that of the particular things. Without the existence, operations, and essence of the things, there is no God. IP15I would supplement this point of view with “Whatever exists, exists as a particular thing, and nothing can exist or be conceived without things.”

The Latin word for “thing” should here be *res*, not *modus*. The totality

of things, *Natura*, would constitute the medal envisaged by Gueroult. *Natura naturans* and *natura naturata* would constitute the two faces. The criterion of “*x* is a particular thing” would have to be elucidated, since a usual atomistic interpretation, covering chairs and pens (to mention conspicuous examples from many Western philosophers), scarcely would qualify. The definition should be such that it gives good sense to say that all individual things are “animated in various degrees” (IIP13Sch).

It is instructive that Spinoza has no word or expression for the medal as a whole. The expression “what there is” (or “*omnia quae sunt*”) does not qualify because according to IAX1, all that is either in itself or in something else, is either substance or mode (IP29Sch).

The modes are the expressions of God (cf. IP25Cor, etc.), and without those expressions there is no God. The expressions are caused by God in the same way that God is caused by God. This follows from IP25Sch, the expressions being the same as the things.

Conclusion: the existence, causation, and essence of God are dependent upon the expressions of God.

The dependence relation is primarily a *conditio sine qua non* relation: *A* is a necessary condition of *B*; without *A*, no *B*.

Since causation from God as cause is in general a necessary relation, it is a necessary relation to the essence of each thing. From this it follows that for each thing's essence one may say that without that particular essence there is no God. God's existence, causation, and essence depend upon each particular essence of things.

Now I shall refer to the chief evidence of these finitist interpretations.

In a large important class of occurrences of the term *Deus*, the term is part of an expression *Deus quatenus*, “God as . . .”, “God insofar as. . .”. This class reveals that God has two aspects seemingly of equal stature: *Deus modificatus* (“God as modified”) or *Deus non quatenus infinitus est*, and *Deus infinitus*.<sup>1</sup>

It is my claim that the text of the *Ethics* viewed impersonally as expressive of a system may be plausibly interpreted as asserting the radical immanence of God in the particular things. The central notion will be “particular thing” (*res*). The things will be regarded from two points of view, that of *natura naturans* and *natura naturata*. These two aspects will be equivalent to the infinite and the finite God. In the system they will be ontologically on



par. This status would make it natural that the finite God, and therefore also the finite substance, were defined after definition 6 (of the infinite God), at the head of part I.

It is largely accepted among Spinoza scholars that Spinoza adhered to some sort of "nominalism." The principle of radical immanence is only tenable, as far as I can see, if combined with a radical form of nominalism. If something has two aspects, only one thing *exists*, but we may need to *talk* about aspects or sides as if they existed independently. A particular coin has two faces, two sides, but there exists only the one coin.

We need to talk about extension, but there exist only particular extended things. The radical nominalism I intend to apply to the text includes nominalism of universals: one may form a class "human beings," but only as a shorthand for a pretended list of all particular human beings.

It is tempting from a certain nominalistic point of view to identify *natura naturata* with the class of particular things and to limit (real) existence to them. One remains closer to the text, however, by taking *natura naturans* as an aspect of the particular things, which all have in common, and *natura naturata* as an aspect that separates each thing from all others. The aspects may be given various names in addition to the above: the substance and the mode aspect, the in-itself (*in se*) and the in-another (*in alio*) aspect, the active and the passive aspect, the self-determined and the other-determined aspect.

The term *aspect* is one of the vaguest, but also the most unpretentious term that can be used in a preliminary characterization of the relation of the finite to the infinite God of Spinoza. The aspects do not exist (separately), but they are there. It is tempting to introduce a consistent terminology at this point, saying that the particular things *exist* whereas the aspects (and other entities on the conceptual level) *intentionally are*. The former have nonintentional existence; the latter, intentional being.

If we use this terminology, *Deus*, both as *infinitus* and non-*infinitus* is, but does not exist. The same holds for substance, attribute, and mode. They all have being, but not existence.

Today, such a distinction may be understood if introduced when one explains geometry. Circular things with a certain, somewhat variable ratio between radius and circumference *exist*, whereas  $\pi$  *is*. All the relations asserted in pure Euclidean geometry *are*, but none exists.

One may speculate about how Spinoza would differentiate verbal utterances that are adequate expressions of the first, the second, and the third kinds of cognition. Perhaps only cognitions of the second kind may be *adequately* expressed verbally. The language would primarily reflect relational insights. The following hypothesis seems to be promising: the language of the *Ethics* is formed to express rational insights, not the particular insights of the third, intuitive mode of cognition. The terminology of the *Ethics*, including terms such as *Deus* and *natura*, should then be looked upon as an instrument for introducing the contemporary reader to a philosophy not entirely dependent on that terminology. The third, and highest, form of cognition is, in this case, not dependent upon the terminology. Perhaps one might even say that the particular intuitive cognitions of the third kind are not adequately expressible through that terminology, or any other.

Conclusion: the terminology of the *Ethics* should be taken as the adequate expression of Spinoza's intuitions.

The immanence of God in human beings is well expressed in IVP4Dem: "The power through which singular things, and consequently human beings, conserve their being, is God's and Nature's power itself . . . , not as infinite, but as it can be explicated through the actual human essence." In the *Treatise on Theology and Politics*, chapter 1, we read, "Our mind . . . contains God's nature objectively in itself, and partakes in it."

In parts IV and V of the *Ethics*, Spinoza introduces gradualist terms of power, freedom, and other basic notions. This lends itself to a gradualist view of "being in itself," "being self-determined," and other predicates expressing the divine component of particular things. The road to freedom is the road toward a maximum of the divine component.

It is my contention that the introduction of the finite God on a par with the infinite opens a way today for understanding a system expressed, but not necessarily intended, by the text of the *Ethics*, and that it may justifiably be termed Spinozist.

## Einstein, Spinoza, and God

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“Einstein and Spinoza” is a tempting theme for a Spinoza scholar and Einstein admirer, as well as for a Spinoza admirer and relativity specialist. In what follows I shall pick out a small part of the many subthemes that today deserve renewed consideration: God, nature, determinism, and timelessness.

When Einstein was invited to contribute to the *Spinoza-Festschrift*, 1632–1932 he declined: “Unhappily love for Spinoza is not enough to justify the writing of a dissertation about him.” Unlike Sigmund Freud, who declined for a similar reason, he added some substantial words about Spinoza’s philosophy. Spinoza was the first, according to Einstein, who “with real consistency applied determinism to human thinking, feeling and action.” He adds that this requires not only consistency in thinking, but also “an unusual purity (*Lauterkeit*), greatness of mind (*Seelengrösse*), and—modesty.” These requirements prevent determinism from being universally accepted among those “who fight for clearness and consistency” (*Spinoza-Festschrift*, 1632–1932, ed. Siegfried Hessing [1962]).

These words attest to the deepness of feeling with which Einstein defended his deterministic outlook. There are, however, many open questions as to exactly what this outlook implies. The word *determinism* has never had a single, fairly definite meaning, and there is little reason to believe that it ever will. In what follows, its relation to concepts of God and essence will be mentioned.

“I have often felt and occasionally also stated that Einstein stands in

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particularly intimate relation to the God of Spinoza." These words by his old friend and collaborator Arnold Sommerfeld deserve to be taken seriously. "Many a time," says Sommerfeld, "when a new theory appeared to him arbitrary or forced, he remarked: 'God doesn't do anything like that'" (quoted in Schilpp 1949: 103). Taken in isolation, the remark might be used to support the belief that Einstein's God was a transcendent God, but what he has said and written makes it clear that his God was immanent in nature. This is a cardinal idea for Spinoza. Human beings are genuine parts of nature; therefore, they partake in God's determining power—however modestly and fragmentarily.

The expression *Deus sive Natura*, "God or Nature," Nature with a capital N, occurs four times in the writings of Spinoza. It is clear that one must have in mind the distinction between *natura naturans* and *natura naturata* when interpreting this famous expression. It points to Spinoza's conceptual distinction between an active and a passive aspect of a supreme totality for which he does not have a particular term. God is the name for the active aspect, not the totality.

It seems that Einstein's feelings concerning harmony and lawfulness in nature make a similar distinction relevant. The God of Einstein is not identical with nature or the universe. God is immanent. The immanence is a different kind of relation, a relation difficult to articulate conceptually. Einstein uses the verb *reveal* in the famous cable he felt he had to send as a reply to a cable "Do you believe in God?": "I believe in Spinoza's God, who reveals himself in the harmony of all being, not in a God who concerns himself with the fate and actions of men."<sup>1</sup> God is revealed *in* something, namely, all being, with which he is *not* conceptually identical. On the other hand, God is not *apart* from all being.

Spinoza does not use the term *revealed in*, but prefers *expressed through*. God is expressed through the modes, the particular beings. God is not something apart from these expressions. (This may sound heretical to some Spinoza scholars, but to me it seems to be essential to his system if it is to be understood today.)

The characterization of Spinoza as a "pantheist" is often interpreted in the direction that he identifies God with the universe or the world. Therefore, a better term for his view is *panentheist* ("God in all"). The difference is essential in discussions of the "problem of evil." That is a still more formi-

dable problem for pantheists than for panentheists. As a panentheist Einstein may have less difficulty in defending his theory of harmony and his maxim that God is sophisticated but not malicious. (Incidentally, interpreting the maxims of Einstein, one should take into account his particular sense of humor. Uttered by a Spinoza, they would carry a heavier philosophical burden.)

Both Spinoza and Einstein leave questions open when talking about harmony, order, and simplicity. Clearly they do not refer to the actual state of affairs, for example, the state of international politics. Einstein says in a letter to C. Lanczos "that the problem of gravitation made him a 'believing rationalist': the physically true is logically simple, that is, it has unity at the foundation" (quoted in Holton 1970: 186). This feeling or intuition leads us again to the question of "God or Nature," *Deus sive Natura*.

That God for Spinoza is not another name for *natura* is seen most convincingly if we put the term *natura* wherever Spinoza uses the term *Deus*. Some places this results in nonsense or at least in statements that Spinoza would not admit as valid. Even when inserting *Natura* with a capital N, there are difficulties. Perhaps Spinoza's own development from being a young Jewish theologian to a consistent philosopher was never quite completed. Einstein did not undergo a similar dramatic development and might have more easily identified God with Nature.

Does Spinoza's God not "concern himself with the fate and actions of men"? Human beings share in the double aspect of *natura naturans* and *natura naturata*; they are expressions of God or Nature, and as such are free (*homo liber*) and to an extent determine their fate and actions themselves. There is no God somehow *outside* human beings that might concern himself with men. The power used by a human being who acts, not compelled from the outside, but in harmony with his or her essence, is part of the power of God (*Ethics*, part IV, proof of theorem 4).

The question of power leads us to a second great and controversial area of Einstein's thought: that of determinism.

As for Spinoza, determinism for Einstein was primarily a belief in order and harmony, as opposed to chance and chaotic antagonisms, not as opposed to causelessness.

Spinoza's determinism, in contrast to that of Einstein, has often been labeled "rigid," "absolute," "merciless." There are quotations from Spinoza

that support such a view, but if we take part V and the last sections of part IV of his *Ethics* seriously, and not as expressions of inconsistency within his system, these labels must be rejected as misleading. As expressions of God and as partakers in God's power, men are themselves determining their actions. They are creators of something genuinely new. Each thing and therefore each human being "expresses in a certain definite way the Power of God [Nature] by which He [Nature] is and acts" (*Ethics*, part III, proof of theorem 6). Human beings are part of *natura naturata*, but also a genuine part of the creative *natura naturans*. Insofar as their actions are determined by their nature or essence, they are free. Freedom is self-determination. Freedom as determination from one's own nature and essence, rather than from something external, foreign, or even antagonistic to it, is the only freedom rationally conceivable. Lack of determination, that is, chance or arbitrariness, does *not* provide freedom. Our freedom is not secured by a dice-throwing God.

Harmony among people is for Spinoza a consequence of acting freely and not being compelled from something external such as dominating passions. Einstein's unceasing fight against cruelty and oppression seems to imply a belief in the *possibility* of harmony of the kind Spinoza contemplates. The fight was one against irrationality, but Einstein explicitly rejects narrow or pure rationalism in favor of religiosity. For Spinoza there was no problem here: love of God (*amor Dei intellectualis*) is the highest good "we can seek according to the dictate of reason (*ratio*)." Since the time of Spinoza the distance of the meaning of the term *reason* from that of *ratio* has increased. It is now mostly used for what Spinoza would call calculating reason (*ratiocinatio*). Spinoza would agree with Einstein that rationalism in today's sense is too narrow as a basis for fighting cruelty and injustice.

In Spinoza's terminology, freedom and rationality imply harmony with the nature or essence of the actor. The free actions are performed within the framework of laws of nature, not outside. The term *order of nature* is pertinent because as expressions of "God or Nature," the laws are not antagonistic or arbitrary from the standpoint of men, who are themselves expressions of "God or Nature."

Spinoza is, however, eager to eradicate anthropocentric ideas of order and purpose. Man may understand more and more of the laws, as laws of Nature, but doing so implies a gradual dismissal of notions of law arising

from his passive emotions, his original slavery under his passions. The genuine laws do not compel or coerce but make freedom possible.

Sir Karl Popper tried to save Einstein from his determinism, which “amounted to the view that the world was a four-dimensional Parmenidean block universe in which change was a human illusion, or very nearly so” (Popper 1976: 129). Popper wanted him to acknowledge fully “the reality of time and change” and an “open” universe, “one in which the future was in no sense contained in the past and the present, even though they do impose severe restrictions on it” (ibid., p. 130).

It is not entirely clear what Einstein answered in these discussions, but he was scarcely moved in his basic views. The limitation of Popper’s approach owes to his comparing Einstein’s view to Parmenides’ view rather than to Spinoza’s. The latter comparison would hardly have made the discussion simpler, but it certainly would have been more to the point.

Insofar as laws of nature strictly deserve that name, they are in Spinoza’s view eternal. This, however, does not mean the same as that they are permanent in time. Differences in time are *irrelevant*, because these laws are “outside of time.” Consider the expression for  $\pi$ . Even if true, it is not to the point to characterize its validity by saying that it certainly is, was, and will amount to the same 3.14159. . . . Its validity is timeless rather than permanent.

The timeless laws of Nature are like Heraclitus’s law of *logos*: they are completely consistent with universal and pervasive physical change. “You cannot step twice into the same river,” but there is an eternal *logos* in the changing river. Change and time are real, but so are the timeless laws. Without the particular things with limited life span in time, there would be no eternal aspect of reality and no “God or Nature.”

This could be said, so far as I can see, by both Einstein and Spinoza without the slightest difference in basic meaning.

Einstein acknowledged that his proposals in the form of physical theories are free creations of the mind and that his laws, of course, are hypothetical, but he tended to hold that insofar as they agree with the basic laws of nature, the time dimension does not enter. Neither do intrinsic statistical factors.

According to Bohr, he and Einstein had a good-humored dispute about whether Spinoza, if he were alive today, would have agreed with him or

with Einstein concerning the basically satisfactory character of statistical quantum theories as expressions of physical reality.

If we limit ourselves to the carefulest and most precise formulations of Einstein's negative conclusion, it is difficult to see how Bohr could have argued successfully that Spinoza would have agreed with his view rather than Einstein's. Perhaps, though, Bohr at that time was not confronted with Einstein's carefulest formulations. The latter stress that there is much truth in quantum theories, but as long as there is a basic statistical factor, they are incomplete: a complete theory would have to be nonstatistical—deterministic in Spinoza's sense.

Some Spinoza scholars will interpret Spinoza as Popper interprets Einstein: that the future somehow is contained and determined by the past. Then, however, one misses the emergence of the future through the actions of *natura naturans*, including the actions of the more or less living beings. One need not disbelieve in the *genuinely new* in what happens. There is nothing in the *Ethics* corresponding to the past-present-future mechanical determinism of Laplace. What happens is *not* arbitrary, *not* by chance. From that it does not follow, however, that what happens is contained and (fully) determined by the past.

Einstein sometimes talked as if he believed that human beings are determined to act by forces over which they have no control whatsoever. In an interview he is reported to have said the following—intended to counteract the overestimation of his own personal achievements:

I claim credit for nothing. Everything is determined, the beginning as well as the end, by forces over which we have no control. It is determined for the insect as well as for the star. Human beings, vegetables, or cosmic dust—we all dance to a mysterious tune, intoned in the distance by an invisible piper.

(Quoted in Clark 1971: 422)

So far as I can see, it is only the complete determination from something distant that here contradicts Spinoza. He stresses our power in shaping events as part of God's or Nature's creative power. Einstein danced to the particular tune of Einstein when he acted rationally (*ex ratione*), that is, acted from "the necessity of our own nature" (*ex necessitate nostrae naturae*). Einstein often seemed to act that way, for example, in the discussion about the completeness of quantum theory!



We as persons muster a power extremely small compared to the total power of Nature; determination from far away is considerable, but not overwhelming: no part of God's power is of zero magnitude, and the specific power of Einstein was and is part of the power of God. "The power of man, as far as it is expressive of his own actual essence, is part of the infinite power, that is, essence, of God or Nature" (*Ethics*, part IV, proof of theorem 4).

Do these remarks solve any problems? Scarcely. The notions of time, timelessness, and determination are difficult to grasp and belong to the ultimate concepts of philosophy. It may be argued that if a philosopher does not grasp what his colleague says in these matters—despite repeated serious attempts at communication—not much can be done except to note this interesting fact. There may be irreducible differences among the "freely invented" (Einstein) conceptualizations through which reason tries to grasp reality.

PHILOSOPHICAL DEVELOPMENT,  
ENVIRONMENT, AND EDUCATION

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## How My Philosophy Seemed to Develop

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### Introduction: Motives for Psychoanalysis in 1934

Early in 1934, at age twenty-two, I found myself in Austria eager to climb mountains and study.<sup>1</sup> Psychoanalysis was at that time very close to the center of cultural attention in Vienna. It was therefore inevitable that I should ask myself, If I am to be an honest philosopher or scientist, would it not be prudent to go through a psychoanalysis? Was it not suspicious that in the first draft of my doctoral thesis I had introduced the notion of the “achievement” (*Leistung*) rather than the “meaning” of a sentence as a basic dynamic concept? Might it not have to do with my own, perhaps unwise, achievement-mindedness?

Soon I was in a deadly serious fourteen-month analysis, 8 to 9 A.M. every morning except Sundays, with the old collaborator of Freud, Edward Hitchmann. We were both somewhat astonished to find that I had suffered a pronounced childhood neurosis. It had obvious consequences for later life, and the analysis turned into a combined character analysis and analysis of my philosophical inclinations. Some of our findings may be of interest in tracing the genesis of philosophical inclinations in general.

First, I shall try to explain how I arrived at a set of rather basic attitudes and valuations. They will be suggested through a set of key terms. They are not philosophical in any academic sense, but given certain social and cultural conditions, they easily lend themselves to philosophical expressions.

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Second, I shall try to show how these attitudes and valuations contributed motivationally to definite points of view in definite philosophical publications. The two parts of the argumentation are not clearly separated in the text that follows. I shall feel free to mix them when it is natural to do so.

### Shorelines and Mountains: Infant Shoreline Naturalist

From the time I was about four years old until I reached puberty, I could stand or sit for hours, days, weeks, in shallow water on the coast, inspecting and marveling at the overwhelming diversity and richness of life in the sea. The tiny beautiful forms that “nobody” cared about, or was even able to see, were part of a seemingly infinite world, but nevertheless *my* world. Feeling apart in many human relations, I identified with “nature.”

If I disturbed a small sole it would swim around a little, but if no better hiding place presented itself, it would return to me and hide under my foot. We were friends and helped each other. I could make tiny crabs fight, but left alone they would avoid each other or, if forced to compete when eating, would threaten each other in a harmless and amusing way. I did not see much of the brutality that I later heard people attribute to nature. Later in life, it seemed to me more manifest among human beings.<sup>2</sup>

Tiny translucent shrimps would gather around me, staring at me and carefully inspecting my submerged surface. They liked to be fed. Their never-ending inquisitiveness, their gracefulness swimming backward was one of the hundreds of charming features of life as I experienced it. (It is strange to see that an eminent Chinese artist seems to have had the same kind of fascination with shrimps—and it is encouraging to see his painting of shrimps reproduced on postage stamps.)

Two things of clear relevance to philosophy in general and to my philosophy in particular are elucidated by the above: an enthusiasm for *diversity* and a lack of incentive to judge something (some life-forms) as unquestionably higher, nobler, more right, than any other. Key terms here are *equivalence*, *equivalidity*, and *egalitarianism*.

Life along the coastline fostered an inclination to inspect and contemplate the affairs of life from a great distance, but also to participate in a way. In a way, I say, because the social distances between human boys and shrimps are unquestionably large. Some key terms of a shore-life philoso-

phy are: *richness, diversity, multiplicity, equivalence, equivalidity, egalitarianism, peacefulness, cheerfulness*. These were qualities of life as experienced by a definite onlooker and participant. Obviously, if one takes shore life as a paradigm for life in general, including human life, such qualities will affect one's professional philosophy.

One condition, though, must be fulfilled: the experience of shore life must somehow be "traumatic," in a positive sense of "decisive"; it must somehow be associated with very deep feelings and drives. Here a neurosis may be decisive. I shall not try to go more deeply into the psychological background, but I maintain that the key terms suggest bridges of a combined emotional and cognitive kind, linking basic, very early, in part neurotic, experiences with specific philosophical views in my books and articles.

The feeling apart seemed to stem from a basic catastrophe in my early life. Because of the death of my father when I was only one year old, and the preoccupation of my mother with my two brothers who were in their early teens, I was left in the care of a maid. She was excessively kind and submitted to all my wishes. Thus, in summertime I would not tolerate being put into the bathtub except together with a fly. She had to fetch a specimen by climbing up on the windowsills. She was dismissed because of her excesses when I was three years old, and I was never able to love my mother properly as a substitute. It seems that I experienced the change as a loss of a whole world, and that I managed to procure a new one. Nevertheless, the desperation turned inward as a moderate but not insignificant urge to self-destruction and, according to Hitchmann, a masochistic bent. (I think that *destruction* is a better key term.)

The catastrophe remained psychoanalytically rather obscure in spite of intense work. We obtained analytical material in abundance from the age of five, but apparently I had by then already adapted to some extent to my new world.

The life-forms along the coastline obviously differed in cleverness. Some were completely helpless. It was easy to catch them and inspect them. Others were alert and complex in their reactions. I did not, however, attach more value to or have more respect for the clever ones. They obviously all had their own more or less appropriate lifestyles. Shrimps were impossible to catch with one hand—they were accustomed to attacks from one direction—but they did not understand the clever cooperation of two hands.

Their backward thrust sent them into my second hand, quietly placed behind them. I loved them in part *because* of their funny limitations, not in spite of them. Bigger fish were immensely clever and mostly saw me and disappeared before I saw them.

Distance and aloofness were only two of many ingredients in my seashore experiences. They were more pronounced as ingredients of mountain experiences.

Distance gives perspective and breadth of survey. To see a landscape, including human settlements, from the summit of a mountain inspires the contemplation of totality, but also a feeling of being above things, unruffled. To see the mountain from below fosters in some of us a longing for this unruffledness and equimindedness—and more so in a child with terrible things going on somewhere in the mind and body and bursting out in interminable nightmares.

From about the age of eight a definite mountain became for me a symbol of a benevolent, equiminded, strong “father,” or of an ideal human nature. These characteristics were there in spite of the obvious fact that the mountain, with its slippery stones, icy fog, and dangerous precipices, did not protect me or care for me in any trivial sense. It required me to show respect and take care. The mountain loved me but in a way similar to that of my two brothers, ten and twelve years older than I, who were eager to toughen me up.

Philosophically, such a cult of a mountain reduced the need for anything supernatural, anything protecting us directly or guaranteeing the meaningfulness of life. To the key terms *distance* and *aloofness*, we may add here *austerity* and *toughness*. Thus, my very early cult of a definite mountain from the age of eight enhanced rather than weakened the need and capacity for distance, perspective, toughness, and equimindedness.

William James introduced the terms *tender-minded* and *tough-minded* to characterize philosophers. I received a very strong push toward tough-mindedness from my elder brothers. Being tough, somewhat wild, and older than I, they found it their duty (they say) to make a real man out of their thin and timid little brother. (When sick children from hunger-stricken Vienna were sent to Norway in 1919 I was, to the embarrassment of my mother, taken to be one of them.) Their “training program” was tough. For example, they would put me in a snow cave and pretend to fall through

the roof, or they would throw me over small precipices into deep snow. What if I cried? Their version: they would tell me that if I stopped crying, they would stop their treatment. My version: serious distress on my part made them stop, one manifesting tenderness, the other a never-faltering, equiminded benevolence.

The “education” by my brothers left no doubt whatsoever that they loved me and that they could be trusted no matter what, but love got to be a rather tough affair. No nonsense, no sentimentality. This attitude seemed to come to the fore as a detestation and fear of being influenced by manifestations of spirituality and high-sounding notions. A *moral* reaction against Henri-Louis Bergson and metaphysics in general seems to stem from this.

Gandhi did not exclude bloodshed so long as the blood stemmed from the *satyāgrahi*. His spartan lifestyle and nonviolent militancy could be admired in spite of this background in spiritual metaphysics. Spinoza was clearly a tough nut even though he indulged in “romantic” notions like perfection and love of God. Thus, I could let my admiration for these two men of wisdom flourish without feeling guilt. My publications on Gandhi and Spinoza are colored by this admiration.

Two philosophical points were rubbed in through the naturalist experiences: egalitarianism and the value of diversity. A third, developed through the combined influence of these two, was a certain form of *scepticism*. Some points of view (like some animals) are clearly vulnerable from some other points of view (or some other animals), but why imagine that one definite point of view (one kind of living being) would not be vulnerable from *any* other? What value would there be in having something defeat all others? Philosophical geniuses are normally believed for a short time, but are then gently dethroned and left with the label “of considerable historical importance.”

### **Mephisto**

I had a kind and cheerful cousin, one year older than I, my best and only real friend until puberty. Unhappily he was not in my neighborhood (Oslo) during crucial years of my boyhood and teens. He had a brother, ten years older than he, who was considered (at least by my mother) to be the black sheep of the family. He was a Mephisto figure full of sarcasm and cynical re-

marks about life, but he was remarkably kind and tender toward his little brother, who admired him and repeated his dark sayings—without understanding them very clearly, I suppose.

The (of course hypothetical) influence of Mephisto was rather direct: from him I understood that it was quite *possible* to utter the most infamous, sarcastic, and cynical things about parents, humanity in general, and grown-ups in particular. He also showed that it was possible to maintain that married life is absurd and most other venerable institutions abominable. Quite a discovery! In spite of his sacrilegious utterances, he was not struck by lightning. I felt that I had a basic freedom to make up my mind in any direction at all on any subject whatsoever.

Grown-ups reacted with a combination of horror, perplexity, and admiration when I found a little sarcasm appropriate, and I discovered what might be the sure foundation of the art of successful analytical philosophy: the concise counterargument or the old question “What do you mean?” My mother, extraordinarily talented in her choice of expressions, called me the light extinguisher. Because Mephisto was consistently kind and helpful toward my friend and me, I did not feel that destructive, or at least rather cynical, opinions were a symptom of *personal* hatred or aggressiveness. I regarded his attitude as an important one in fighting hypocrisy. Mephisto seemed really to hate its pervading influence. When asked why we did something, we tried to be courageous and mention only our least acceptable motives, hiding our best.

In my later discussions with logical empiricists I think that some of the high esteem they seemed to have for me as a young man derived from short, sharp, but benevolent, counterargument delivered at the right time without blushing.

### The Immensity and Nearness of the History of Life

The Platonic saying that the unexamined life is not worthwhile is one that most, but scarcely all, philosophers accept. Personally, I emphatically endorse it. One of the early sources of this emphasis is clear.

H. G. Well's *Outline of History* (1920) was the first widely read general history of life. Not only were civilizations far away from Europe in time and space treated earnestly and sympathetically, but also the prehistory of life



since Cambrian times, hundreds of millions of years ago. By chance I got hold of the book. What an immense and sudden expansion of my own life's frame of reference! I found that I ought to pay just as much attention to *all* this life history as to that of my own country. All geological periods had the right to be taken seriously and also all creatures, past or present. In my imagination I traversed the history of life again and again during long nights.

By the time I was fifteen the horrible nightmares, a characteristic consequence of my neurosis, had largely disappeared, but I still suffered from sleeplessness. Even today I find the twittering of small birds before day-break ambivalent. For many years they said to me, Sorry, another night with little or no sleep. Another day is near.

A crucial experience: I divided life history from the Cambrian onward into one week of nights—with my own life at the very end of the week. It would consist of only a fraction of a second. What would be worthwhile in this fraction of a second? I never doubted the correct answer: to have a look at the marvelous world, to find out a little about it. Human beings were the first species that had the capacity to become somewhat acquainted with the universe. Devoted scientists, or rather “researchers,” seemed to be those who could satisfy the yearning to find out about the universe, so I started feeling that research would be the right occupation in life. What a joy to get acquainted with the overwhelming richness of our planet!

From these experiences another variety of egalitarianism evolved: all creatures have their own “premises” from which they act. Brontosaurus had a very small brain but was not too stupid to survive many millions of years. *Homo sapiens*, with a lot of brain, *ought to* be able to live and do research just as long or longer.

The extreme shortness of individual life would make it important to limit myself to essentials in the sense of Ibsen's *Brand*, that is, to concentrate on research. No time should be lost to indifferent signs—*adiafora* in the terminology I later learned to know. Dr. Hitchmann found my resulting *Zeitgeist* extreme and deserving of close analysis. It was in his view rather unreasonable and also impossible to realize in a consistent way. (How did I justify thinking so much about the other sex? How about excessive mountain climbing?) Anyhow, emphasis on essentials easily led to emphasis on essence—the real nature of things and its real value.

The work of scientists devoted to the history of life I took to be a work of love and appreciation. Researchers seemed to be the only people able to maintain a consistently positive *basic* attitude even toward the ugliest and most terrifying creatures. Poets were seduced by beauty and form.

It took about forty years to undermine this prejudice formed when I was fourteen to eighteen years old.

From now on I hope I need dwell no further on purely biographical matters. Below I offer a chart suggesting some relations between certain kinds of attitudes and valuations of philosophic relevance.

Key Expressions		
diversity	equivalence	nonviolence
richness	equivalidity	populism
multiplicity	egalitarianism	antiauthoritarianism
naturalist attitude		optimism
distance	aloofness	
	equimindedness	
self-destructiveness	toughness	self-criticism
austerity	reductionism	fragmentation
	trivialism	

Naturalist Epistemology

Enthusiasm for science created in me a need to know what it might be. Could there be a *science* of science?

Just as I would learn about crabs by watching them, I would learn about science through observing the behavior of scientists. Much of their behavior is verbal, and I could not pretend not already to be superficially acquainted with their language and ways of life. But this “knowledge by acquaintance” (Russell) could not be turned automatically into a science of science. On a genuine metalevel, one is not permitted just to listen to scientists as close friends and use their conceptual framework uncritically.

I thought I found in the sophisticated “molar” and “purposive” behaviorism of E. C. Tolman a scientific basis for the understanding of both scientific *activity* and *knowledge*. This approach, and its detailed elaboration in my book *Erkenntnis und wissenschaftliches Verhalten* (Knowledge and scientific behavior, 1936), is no different from what is widely known today as

ethology. In principle it is no different from a kind of purely descriptive zoology of scientific knowledge.

Different sets of *Verhaltensweisen* (ways of behavior) include the sentence "The distance of the sun is 149 million kilometers from Earth" as an important ingredient. They correspond in part to different ways of measurement. The "content" of the piece of knowledge "expressed" through the sentence is neither the distance "itself" nor a more or less illusory phenomenon in our consciousness or our brain, but rather definable in terms of sets of kinds of behaviors. The point of view is related to the operationism of Bridgman, but at a deeper level in opposition to it.

Karl Popper and other logicians of science were astonished and nonplussed when they heard after the war that I still looked upon the scientific enterprise from the point of view of a naturalist. Not that I thought the ethological approach should be the only one. There might be indefinitely many other approaches with equal, or rather, not less, merit. After all, science is only a few thousand years old; science of science is scarcely a hundred; and we might have millions of years to go, if we survive the immediate future.

The genesis, as far as motivational history goes, of my behavioral research on rats and human beings is in part clear. Students at the Sorbonne in 1931 made me an enthusiastic reader of Henri Bergson. I tried to construct a conceptual framework for the understanding of science through "*les données immédiates de la conscience*," but I found that one never gets out of consciousness if one starts there. The whole introspective approach, including that of Husserl, seemed to me to be based on a grand illusion. Bergson and Husserl (in his Cartesian mood) were seducing us, I felt, through lofty visions. They disabled us as real down-to-earth researchers. Perhaps one could learn more from plain observation of learning in rats and rabbits. (The latter animal is referred to repeatedly in my work on scientific behavior.)

Consequently, I went in 1938 to Berkeley, where Tolman received me cordially and let me carry out extensive experiments on hundreds of young innocent rats. One problem: if rats were confronted with an increasing number of choices of where to perform a difficult jump, would their power of action diminish? That kind of problem had vexed me for seven years: my Marxist friends combined great power of political action with essentially

one-track minds, whereas I hesitated and went politically limp, perhaps because I saw and contemplated many, mutually nonconsistent possibilities.

It turned out that rats retained their jumping capacity but showed increasing hesitation and discomfort—measured by the number of defecations and urinations, poor friendly animals! Exactly what, though, could be inferred from that result? Very little, I ultimately concluded.

In angry reaction to the spirituality of Bergson and Husserl and to German introspective psychology of knowledge, I adopted a kind of “objective” epistemology, which helped (or misled) me through the attitudes and value judgments suggested by the above-mentioned key terms *toughness*, *reductionism*, *trivialism*, *austerity*. I was also assisted by the “naturalist attitude” toward scientists. In Berkeley 1938–39 I placed myself behind a rat psychologist who placed himself behind rats. I traced the movements of the psychologist’s head and hands while he traced the movements of the rats.

The key terms *distance* and *aloofness* also apply here, because an essential ingredient of the naturalist epistemology is to avoid relying on spontaneous acquaintance with the scientists’ concepts and explanations, instead approaching the terrestrial scientist as a kind of strange creature inhabiting a strange planet. The operationalist describes operations in terms used by the scientist himself when he describes them. That gives a caricature of metascience.

The key terms *scepticism* and *self-criticism* do not apply to the above-mentioned work directly, but to the public discussions that it started. In a reply to H. J. Pos, I said that the metascientific *model of scientific knowledge* is only one out of indefinitely many, and that just as the behavioral metascientist places himself behind the scientist, meta-meta-researchers representing different approaches may place themselves behind the behavioral metascientist. Perhaps even the key term *self-destructiveness* applies, because what I did was very nearly to say that I had not *asserted* anything whatsoever, just pointed to a scenario. I did not want to compete with anybody. Today I wish to retain something both of the book and of the extreme pluralism implied in my meta-meta-reflections about the book—but exactly what?

The naturalist approach is neglected in Western academic philosophy in favor of epistemic logic, logic of discovery, and other approaches that avoid broad empirical confrontations. It is as if logical considerations were regarded as more philosophical *in themselves* than empirical considerations.

### The Richness of Amateur Philosophies

It is difficult to introduce a concept of truth in epistemologies whose intent is to overcome the absolute distinction between subject and object. This certainly holds good of behavioral approaches. So I was led to take up the broad debate on concepts and criteria of truth, but published only one monograph, *Truth as Conceived by Those Who Are Not Professional Philosophers* (1938). Among the nearly one hundred themes I identified in the debate on concepts of truth, I selected one kind that had never before been taken up seriously: exactly how *true* and related words are actually used in society, and how “ordinary” people conceive truth.

The motivation brings in the key term *self-destructiveness*: the chosen theme could not possibly lead to any contribution to the vast and deep problems of truth as conceived by professional philosophers. Furthermore, I knew that the extensive use of questionnaires and statistics was detested and scorned by “genuine” philosophers. My predecessor in the philosophy chair at the University of Oslo tried to persuade me about two things, to apply for the professorship and *not* to send in my *Truth* monograph. Otherwise, he could not vote for me. That clinched the matter: *I had to* send in that work. (I was nevertheless appointed in 1939 against his vote.)

The empirical study of ‘truth’ made me jubilant and happy; people who had never read philosophy and never thought about my questions answered spontaneously with an astonishing richness, diversity, and multiplicity of opinions. Practically all the main kinds of “professional” views were expressed—not in a sophisticated way, but at least as embryonic philosophies. For example, extremely terse and pointed formulations such as *that it is so* were produced as answers to “What is the general characteristic of anything that is true?” Verification conceptions of truth were expressed through formulations such as *that it is shown (to be the case)*. If quotations typical of Plato were offered, counterarguments in an Aristotelian vein were produced.

To my delight, some people down to the age of fourteen could be classed as Pyrrhonic or zetetic sceptics in the sense of Sextus (Ph, 1,1,1). They would say that no truth had ever been definitively established, but they did not think of this opinion as definitively established either.

The study of truth and a series of other, similar studies, mostly unin-

ished and unpublished, supported me immensely in my attitudes and valuations (also) with the key terms *egalitarianism*, *populism*, *antiauthoritarianism*, *optimism*. They embarrassed colleagues in the humanities, however. At least one of them found it deplorable that Norway's only full professor of philosophy studied the philosophies of housewives instead of that of Plato. Sure enough, my studies gravely undermined my already shaky belief that there was anything that we professional academic philosophers could perform today better than amateurs and decent, empirically minded, interdisciplinary researchers.

What about the richness and equivalency of *professional* philosophies? Provoked by mutual distrust between existentialists and the analytically minded, I published *Four Modern Philosophers* (1968a), taking care not to reveal any differences in my estimation of Carnap, Wittgenstein, Sartre, and Heidegger. Carnap complained mildly that I had compared him to a schoolboy.

### Logical Empiricism and Empirical Semantics

Valuing mountaineering and life among mountains higher than university studies, I chose to live in Switzerland once I had received the degree of master of arts (1933). After comparing prices, however, I went to Austria instead. In Vienna I by chance dropped into the famous seminar led by Moritz Schlick and Friedrich Waismann. The logical empiricists received me with touching cordiality, and for some years treated me as a new comet on the philosophical firmament.

My main grievances were only two. First, in spite of their brilliant intellects, they seemed really to believe that they had found some truths. I looked upon their views *only* as fruitful research programs, consisting of rules of considerable, but limited value (Naess 1936a, 1938). Their working hypotheses could only be confirmed through interdisciplinary research, mainly empirical with only a dash of formal logic.

The second grievance was their belief that the study of language and formal logic could somehow contribute in an essential way to the "solution," or at least "dissolution," of philosophical problems. Instead of slogans such as "physicalism" they ought, I thought, to adopt that of "research behavior" (Naess 1936a). I mention these grievances because they have

much to do with understanding the main goal of my largest work, *Interpretation and Preciseness* (1953 [SWAN I]).

In that work it is implied that terms of daily life, and to a lesser degree also technical terms in wide use, permit of an indefinite variety of interpretations presupposed or postulated by philosophers artificially to narrow down the options. Underestimation of the range of interpretations reduces insight into the richness of tenable positions concerning problems of vital interest.

The turn of (Western) philosophy in this century toward language rather than cosmos, toward logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind alley.

Communication, and especially *preciseness* in communication, depends upon interpersonal synonymy relations. These are worthy of decent empirical research, but it costs great labor to carry through the investigation even of seemingly simple relations. Thus, the turn from cosmos to language is not a shortcut to truth.

Even a superficial inspection of *Interpretation and Preciseness* makes clear the emphasis on diversity, richness, multiplicity, and searching rather than finding. The same holds for my survey of concepts of democracy and ideology (Naess, Christopherson, and Kvalo 1956).

As the leader of the project on ideological controversies between East and West at UNESCO (1949–50), I had the chance to indulge in the multiplicity of interpretations of *democracy* and related terms. With the able assistance of the young political scientist Stein Rokkan, we were able to undermine the grave accusations in the Eastern European camp that the terms were *misused* in the West, as well as the indignant reproach in the West of evil misuse in the East. Not only were *diversity*, *richness*, and *multiplicity* key terms, but also *nonviolence*, *aloofness*, and *equimindedness*. We corresponded with about 450 scientists and politicians on hotly controversial problems. The resulting volume, edited by R. McKeon and S. Rokkan (1951), was promptly sold out and never reprinted by UNESCO owing to the politically dangerous character of its contents (see *ibid.*, pp. 447–512).

## Diversity and Nonviolence

In several books and a great number of articles I have promoted the nonviolent solution to conflicts. I have supported the Gandhian active nonvio-

lence (*satyāgraha*) and tried to show philosophical principles from which it can be derived (Naess 1974b [SWAN VI]). Gandhi contrasted “the law of the jungle” with ethical law as intuited by man. Placing human societies and myself, as I had, within the framework of an essentially homogeneous, all-embracing Nature, and admiring and feeling nearness to the small carnivores along the shore, how was it possible for me to come early under the strong influence of a Gandhian ethics of nonviolence? As mentioned above, the life to be found in shallow waters may be conceived as essentially peaceful, and favorable to a norm of maximum diversity, richness, and multiplicity. Since Darwin there have been undercurrents stressing the evolutionary importance of symbiosis—the capacity of living together with or without mutual benefit (Krapotkin and others).

A human being who has not been deeply hurt by suppression, hatred, or lack of support and care can *identify* with all living creatures. The sufficiently mature person experiences joy on seeing joyfulness in others, sorrow on seeing sorrow. The mature mind also sees the vast differences of conditions under which fellow creatures live, and understands that the differences will (and should) foster a vast variety of ideas, behaviors, lifestyles, and cultures. To contribute to the maximum richness of differences, human beings should counteract only the growth of ideas, behaviors, and lifestyles that threaten this very richness. We cannot remain passive in the face of such growth and the conditions for that growth.

Does not this imply firm beliefs and therefore a rejection of scepticism? As developed in my *Scepticism* (1968b [SWAN II]) I favor a *zeteticism*, a fundamental openness based on concepts and intuitions of equivalidity. When diversity goes deep enough, a kind of generalized *de principiis non est disputandum* has to be adopted. This implies rules of behavior that harmonize with those of nonviolence in conflict situations.

The self-destructiveness revealed in the psychoanalysis was sometimes clear to me in the 1960s when I was defending scepticism and elaborating my view in book form. I could myself object against my work: “Professional philosophers look upon a defense of scepticism as a defense of the ridiculous view that you don’t *know* that no elephants swim in your soup. People at large inevitably feel that you defend doubting and negativism. The way you write is therefore quite misleading and apt to eliminate you as



a serious participant in philosophical and social life. But perhaps this is what you secretly wish!"

### **Ecosophy**

The global ecological movement touched off by Rachel Carson gave me an opportunity to gather together most of the themes of my philosophical works in systematic form under the heading *ecosophy* (a large number of these publications are now available in English in volume 10 of the SWAN series). It is a kind of total view inspired by, but not derived from, ecology. Its emphasis is on basic norms and hypotheses concerning the relation of man to an all-embracing reality. A model (and therefore a conscious, deliberate simplification) takes "Self-realization!" as a fundamental norm. The self to be realized is not the ego, but the large Self created when we identify with all living creatures and ultimately with the whole universe, or Nature in senses close to Spinoza's *Deus sive Natura*.

It is often said that the discovery that the earth is not the center of the universe has made man smaller. It has diminished his status. I have always felt that I grew bigger and bigger with the extensions in time, space, and cultural diversity. The universe is *my* universe, not my ego's but that of the great Self we have in common. This is metaphysics, but through philosophical research it can be developed in the direction of clarity and cognitive responsibility. From the fundamental norm "Self-realization!" plus hypotheses about the world, I derive a set of principles for "Green politics." In this way, abstract problems of philosophy are connected with concrete issues of contemporary political conflict.

The elaboration of ecosophy and the participation in social conflicts in favor of Green politics furnish cultural expressions of nearly all my youthful dreams and reflections. I shall not repeat the key terms, but refer the reader to the survey listed earlier in this article.

Some of the terms need comment, however. Austerity contributes to the picture of a life rich in the realization of intrinsic values, but simple—even spartan—in the use of means. Toughness is required in the nonviolent fights, in protection of nature, soft technology, cultural diversity, and decent lifestyles. Self-destructiveness, reductionism, fragmentation, and triv-

ialism are, it is to be hoped, gradually eliminated—but what about self-criticism?

### **On the Way**

There is nothing in “ecosophy,” or in any other, more fragmentary work, that I would regard as established. On the contrary, I feel that all I have published has been “on the way.” Before proofreading is done, I have normally fathered heaps of notes for improvements, modifications, and elaborations. When I leave a subject and proceed to something new, it is always because I am impelled to do so by the movement of my own thought and actions, not because what I leave seems well enough worked out and accomplished. With greater talents, I would have produced better-rounded-off works, but basically I think that human beings are something essentially on the way, destination unknown, and that they are justified in expressing themselves, talented or not, as they move along.

## Deep Ecology and Education: A Conversation with Arne Naess

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*Is deep ecology primarily about asking philosophically “deeper” questions, questions about one’s most fundamental beliefs, or is it about achieving ecocentrism or some other ecological goals?*

*Arne Naess:* To ask deep questions is evidently not enough. As a supporter of the deep ecology movement, you have to go deep in your questioning, to what for you are the deepest beliefs. That is a necessary, but not a sufficient, condition of being a supporter of the deep ecology movement. What we see is that from the deepest premises some people derive the eight points, or key principles, of the movement. Others derive unecological consequences.

We have seen throughout the history of philosophy very deep questioning that, in my opinion, goes in the wrong direction. Thomas Hobbes, the great British philosopher, for example, did very deep questioning that led, from a deep ecology point of view, to very bad conclusions—consistent materialism and authoritarian political views. So there is no problem in the deep ecology movement about this. You have to ask a supporter to have some kind of life-lust, some kind of philosophical or religious premises. So that’s clear—go deep, but that’s not enough.

This interview was reprinted with permission from the *Canadian Journal of Environmental Education* 5 (2000): 48–62. Conducted by Bob Jickling, editor of the *Canadian Journal of Environmental Education*, it is based on conversations with Professor Naess held in Oslo May 29–30, 1998, and February 23, 2000.

*If our task as philosophers and/or educators is to help people develop an environmental philosophy of their own, then must we accept the risk that they might come to conclusions we may regard as unsound?*

AN: Sure. We may say, All right, these are your basic premises, these are your highest priorities, and from these you draw such and such consequences, but I'm afraid some of these consequences are not good, and I strongly object.

In spite of the disagreement, there are two different ways of going on with the dialogue. One is to question whether we have really derived consequences we ought to derive from our premises. The other is to see what can be modified: "Could you modify the formulation of your basic views?" Then you make a suggestion about the basic premise: "Could you agree to formulate the premise a little differently?" Then you try to be helpful in seeing different possibilities of interpretation of what he or she is saying. Before you simply say "We disagree fundamentally" or "We disagree about the consequences," go on with the dialogue.

*So your emphasis as a teacher would then be in helping the students examine their premises and subsequent consequences—helping the students to clarify their thinking at each level?*

AN: Exactly. That's right, to help these students articulate how they feel. There is a kind of endless process going on within our societies and between different societies. We may conclude after many discussions that there are some real differences of opinion among us. Then you have to find some basis for peaceful coexistence. We are not going to use any violence, in communication or otherwise, but we simply disagree. And then we can add, "If we didn't disagree on anything of importance it would mean that we were getting into a kind of completely homogeneous culture, which is a terrible thing, so better really to dislike each other's position than to have no differences."

Where policies are violently unecological, invite relaxed debate on a large scale.

*Perhaps the continuing evolution of environmental philosophy provides a reason to give preeminence to the deep questioning process, and to be very careful about not imposing particular formulations?*

AN: Yes. I look at myself as a kind of stream—not as an ego—and the stream goes on. That doesn't mean that I am a relativist. I am a relationist. You should have a self-respect and self-confidence that you can change and admit changes. There are many people who don't have enough self-respect and self-confidence. They are a little afraid of contradicting themselves, or they identify too much with particular positions, or they feel threatened.

As a teacher I'm aware of this: I think some of my students may not have a high degree of self-respect—be careful, take plenty of time to discover their background.

*I'm interested in how you see relationships between deep ecology and other formulations such as social ecology, ecofeminism, . . .*

AN: We tend to specialize. With this specialization there is a tendency to feel opposites instead of feeling the complexity of the relations and complementarity. I think that the deep ecology approach includes what we think is important in the social ecology movements, and also important things in ecofeminism. We are so grateful to work with these ideas. Deep ecology supporters must acknowledge that we sometimes have a one-sided view. We sometimes underrate participation in political debate, or we are unable to have meaningful discussions with economists.

*I think some students force us, through their questions, to go deeper in our own questioning.*

AN: Oh yes, and there you get to questions for which there is no difference between the competence of a professor and a youngster. If you go deep enough into life philosophy, you will reach a level at which people get together, whether they are professors or schoolchildren, at the same level.

I have a lot of conviction for what I believe and I go for it; I am sure that I will not change my opinion. At the same time, though, I see the possibility of changing to the opposite opinion. I have complete confidence in myself, yet I see the possibility that the next day, after some terrible experience, I may have a different position.

*Your emphasis on the deep questioning process seems to be informed by an optimistic view of human nature. How would you suggest that we deal with the barriers that fear and prejudice represent? Is deep questioning sufficient?*

AN: No, discuss the consequences. With deep prejudices you must use some examples of how you would behave in a particular situation. For example, in 1935 I was climbing a little with a strong supporter of Hitler. I had some pieces of bread and I said, "This was made by a Jewish girl. See if you can eat it anyhow." Then he admitted, "Well, I do not mean that absolutely every Jewish person is a terrible so-and-so. There are exceptions." With reluctance he would then eat just a little of the bread.

You have to, if you can, get into some practical situation—you start a walk somewhere, do something together, and then—bang—you have an example: "How do you look at this?" Then you may make this person change the formulation of what he or she has seen as an absolute truth. The Hitler enthusiast could be made less dangerous, less badly informed.

That's what they were so good at, the logical empiricists in Vienna. They were very different personalities, but sometimes one would say, "Could I formulate your view a little differently?" and another would say, "No, no!" "But could we formulate it this way?" "No." "Well, how about this way?" "Yes." You see, they invited one another to propose different formulations. It means that basically they were trying to help one another; there was a kind of research attitude. Instead of calling their philosophy logical empiricism, they should have had the slogan "Research attitude." They had four theses in philosophy that I thought were not valuable, but they had the searching minds required of insightful philosophy. They had an eminent research attitude. People did not understand this and often believed that which agreed with their own philosophy.

*The cynical person might say, "Well, that example didn't do very much to stop the Holocaust," but the optimist might say, "Well, there weren't enough people 'sharing their bread'" as you described in your example.*

AN: It was necessary not to hide what was going on, and our duty was to talk to people who were on the wrong side. I was in Austria in 1934 and 1935. What I found was that many were just following a trend—joining the bandwagon—and expecting nothing like what ultimately happened, holocausts. When people saw that things were going very wrong, they didn't stand up as much as they should have. I said, "If some are bad then you need not talk to them, but if they are very, very bad, then you may invite them to dinner." That is Gandhian. You must not leave them.

*You've written about seeking ways to live both joyously in the world and according to obligations [see, e.g., Naess 1989].*

AN: Some people think that I don't have an ethic because I don't have ethics of duty, but I say that ethics of duty may ultimately be based on the ethics of fondness, empathy, and what I call some kind of positive identification with something else. If you have that, you then formulate duties, saying, Whatever the situation, this must be done in this way rather than that way. So you understand that there are some things that are duties, such as you obviously have toward children. If you take the dramatic chance of being a father or mother, then there are a lot of things that you should formulate as duties, not only what you ought to do, but what you must do.

In environmental ethics I say, Never moralize. Sweep before your own door. In a rich country like ours we do things every day that we should not do, things that are not done in a consistently ecologically sustainable way. We are all sinners. Some people are very good at certain things, others are very good at other things, and scarcely anybody is very bad in every way environmentally. You have options. I might say, "I can't be like that, you are superior there, I'm going to have this bad habit." And Gaia says, "The earth is fantastically rich; you can have some of your bad habits—but here are the limits."

*Environmental education has been criticized. Some claim the problem lies in programs and curriculum materials that are not objective and not grounded in facts. You have said: "Is not the value-laden, spontaneous, and emotional realm of experience as genuine a source of knowledge of reality as mathematical physics?" (Naess 1989: 32).*

AN: I think this sentence may easily be misunderstood. What I intend to say is that in spontaneous experiences, experiences that you are confronted with every moment, you have as near a relation to reality as you can have in mathematical physics.

For example, when my Chinese wife was confronted with a Norwegian waterfall, she spontaneously saw it as a tremendous water channel that had leaked—an accident—and found it rather threatening. What she spontaneously experienced is exactly at the same level of reality as my experience of beauty and greatness. Mathematical physics, or any kind of science, cannot falsify the contact of the spontaneous with the real.

This is easy to comprehend in music. You listen to the opening of Beethoven's Fifth Symphony: *da da da dab*. That makes one gestalt, one whole. Then after *da da da dab* you get *da da da dab* an octave lower, and that's another whole—one of the smallest units that you have in a symphony. And those two together—*da da da dab, da da da dab*—make a more comprehensive gestalt. However, there is always a more comprehensive gestalt, more comprehensive wholes. For example, your experience depends upon with whom you sit. If you are in love with the person sitting with you, that will change the whole symphony—really change it.

If you suddenly hear *da da da dab* on the radio, your experience has to do with the whole symphony and not with just this part. You simply cannot think of existence, as a human being, without acknowledging that kind of experience. There is nothing in science that can undermine these experiences—saying it's wrong, it's mistaken, it's subjective.

Daily life has the character of gestalts rather than separate facts. Whatever we do, we are in a unitary situation that is extremely complex, but we are never in a merely factually describable situation. It's always a value situation somehow. For example, a parking lot is seen as tremendously well made technically, but there is a question of whether we should have it. We may experience a parking lot within a whole, an emotional gestalt, as a negative on a deeper level, which leads you to say, "I feel the policy is wrong." Such a feeling is a valuable starting point. Try to articulate what you feel!

*Sometimes critics dismiss elements of environmental thought, and environmental education, as subjective evaluations, sentiments.*

AN: There is an underestimation of the cognitive value of feelings. What people say in favor of economic growth is sometimes highly emotional. I can't see why I should be opposed to their personal engagement in this case. We do not like to rob our antagonist of feelings. It would be terrible if I met some opponent without any feelings. We may have, for example, a great feeling about economic growth. We all have feelings for this or for that. To say that how we relate to nature is a question of feeling—that's not interesting because it's so obvious, that we are subjects. How we relate to our children and how we relate to criminality are also questions of feeling. Really, there is no valid argument against the strong feelings for—or against—nature, but we may properly ask, Why do we have those feelings?



*How, then, does a teacher tell a principal or school council responsible for her school that she wants to take kids out and have them get spontaneous experience, to nurture their gestalts?*

AN: Some people have hundreds of good, joyful experiences that cost nothing. In the schoolyard itself, you find a corner where there is just one little flower. You bend down — you use your body language — and you say, “Look here.” And some answer, “There is nothing there.” Then you talk a little about what you see, “This flower here, it’s not the season for it. How can it be there this late in the year? And look at it. It certainly needs a little water; it’s bending, look at the way it bends. What do you see when it’s bending like this?” I call teachers who behave like this nature gurus. It is a little more like an Eastern kind of education, more in terms of personal relations. Try to make them see things they haven’t seen before. Use your body language. Even inside the schoolyards, you find nature’s greatness.

I remember in Tokyo, our car stopped unexpectedly. I found right there no building, but a small area of “weeds,” excitingly different from those in Norway. Consequently, I had a splendid time for a whole hour inspecting the strange weeds. Conclusion: teach children to value spontaneous crazy experiences—crazy because usually one would say, “There is nothing there.”

*What advice would you have for those living in urban areas? Can we connect properly with deep ecological thought in only relatively undisturbed settings?*

AN: We can do it in cities. You can do it along railways, highways. Everywhere there is something that is essentially nature. You don’t see any human purpose in it. It’s there on its own—and it’s ugly or it’s beautiful—but it’s there and its complexity is unlimited. To see something where you do not need to take any stand toward a purpose, or utility, or even beauty is a good thing. Even if you go to look at an art exhibit you are constrained, you are expected to like something and dislike something else. Whereas if you look at the sky—there are a fantastically lot of different clouds in Norway—you are free, and therefore free to straighten the imagination. More and more, I look at clouds. I did it as a boy, and now at the age of eighty-eight I am getting back to clouds—changing, changing, changing. There must be much more of that in school—keeping imaginations intact.

What I say here has to do with high-level environmental education.

There is a school in which they have wonderful semesters on the environment, but they say, We must start with chemistry; we have to have the facts first! People go to those places for a whole year of environmental immersion—they are not at all motivated by chemistry. Go straight into what they are motivated about; then later you can say, Well, here we have to do a little chemistry—use the term  $CO_2$  and so on—but as part of a whole in which you always have the basic motivation of the students in mind. When there is care for the environment all the time, then put in some physics and chemistry. If they are not very fond of physics, chemistry, and statistics, let it drip in—into something marvelous.

*You say that gestalts are complex and sensitive to introspection, that application of scientific observation habits will lower gestalt abilities—reduce people's ability to see wholes—if counterforces are not introduced at an early school-age level (Naess 1989).*

AN: You learn as a child that there is something called knowledge, and soon children learn about scientific knowledge as something opposed to myths and the undue influence of feelings and values. You can easily begin to overestimate the importance of scientific knowledge in a vital question, which is always also a value question. As for ecology, we have had for a long time more than enough ecological knowledge about how to mend our ways, so in some senses it is a blind alley to ask for more knowledge; wisdom is what we need. Climate research, for example, will always be hypothetical in character, but we have to say, If there is an effect, then what are the consequences? Then people sometimes think, But it is not scientifically proved. We can't verify or falsify, in a strict sense, any scientific thesis. We must be quite honest that it is always hypothetical. A theory is born, has a life, shorter or longer, and a death. So you see, we have to undermine the prestige of scientific knowledge in favor of research, and of value priority.

*Can you speak about the relationship between research and the valuations that underlie scientific knowledge?*

AN: You can prefer, for example, a certain kind of methodology. You value it. However, you cannot derive the value of that methodology scientifically. You can only point to examples of how it has worked in particular cases—descriptive examples. Not all questions in research are on the same level, on

this descriptive level. You make choices that are normative, and those choices cannot logically be derived from descriptions.

*I'm interested in the relationship between natural history and praxis as you see it?*

AN: Instead of immediately introducing the term *ecology*, you may introduce relations of human beings to nature with the historical background—not the history of humanity but history in general. You can start holistically—integrate—in a mild sense of holistically. We can ask the philosophical questions “Who am I? Where am I? What do I want?” You can talk about human relation to what is not human.

Then I wish that we would let teachers say, “How do you feel the world? How do you feel yourself?” The term *feel*. “What does this feel like?” instead of “What is this?” We immediately get feelings into the teaching. We don't have a life of pure cognition and a life of feelings as something separate. We start with both at once, and natural history is a good place to do that. So the extensive use of *How do you feel? What do you feel?* Then you inevitably get “What should you feel?” then “What do you think you are right to feel?” and “What do you want yourself to feel?” The praxis, human practice today in the rich countries, is detestable, and many want to feel it more strongly so that they are motivated more strongly.

*The developmental years, those early years of school (and before), seem crucial. This brings with it a great burden of responsibility for those who care for and teach young children.*

AN: I usually say that at four years old it seems to be quite natural to have a total view, a rudimentary philosophy of life. A total view would be the kind of view that encompasses him- or herself and the world. If you could talk with a four-year-old for a long time, you could probably describe an outline of the total view of this boy or girl, a view that is still uninfluenced by schooling. We should try to investigate more what happens between four years old and ten years old. We talk about socialization—after four-years it starts—bang! “This is how it really is, not how you fancy it is. This is how things are done. This is how we should feel. This is how you should think.” Five-, six-, seven-, and eight-year-olds are coerced to listen. Unfortunately, it is more and more believed that the earlier you start schooling the better.

So we have a very important function to find those who are writing good things about this time between ages four and eight.

*But the reality is that we have a system in which we do put children in schools right away. And we have people responsible for nurturing their development — people who teach kindergarten and grades 1 and 2.*

AN: I would then introduce the difference between science and research. If you let the four-year-olds continue the development in cognition, they will be researchers rather than scientists, they will be researchers and seekers, and they will be marveling just as much at what we don't know as what we do know. Lots can be done in upgrading the term *research* in relation to science. A good researcher may never pretend to have contributed to scientific knowledge. Teachers as researchers, or seekers, talk as much about what we don't know as about what we do know.

So, in the kindergarten you should have very few finished products of any kind, but many tools and very many natural things that the children can use. You should have projects that only faintly suggest what can be done.

There should be easy access to what I call patches of free nature. Those may be very small — not wilderness. Patches are where things grow without any design whatsoever, and if the body language of the teacher expresses concentrated attention, they all tread very lightly, very carefully.

One square meter of a meadow is so fantastically rich that there should be enough to discover for the rest of our lives. So you could have the children follow the small patch of free nature through several months: the same little flower, but now withering. Take just as much care of the withering plant as of the blooming plant.

*Kit-Fai Naess:* How could you expect five-year-olds to withstand social pressure, group pressure from not having this particular toy, from not having a Spice Girls CD?

AN: Yes, it's not a question of not having new things, but rather a question of keeping and valuing things. Show children, don't just place gifts in their hands. My small daughter already knew about radio when she came into the mountains. "Where is the radio?" she would say. Then, the next time we had a radio with us: "And here is your radio." Of course, for a couple of

days she used the radio, but after a week she never used the radio. The mountains did not encourage radio.

*You have often said that you're an optimist for the twenty-second century. But what about a fourteen-year-old who is despairing, who's facing her whole life? If she thinks the world is burning up because of greenhouse gases, why should she care?*

AN: There are some doomsday prophets, but there are no doomsday prophets among the serious ecologists. Not a single one. Every fourteen-year-old who cares should be told this. Ecologists tend to say that if we continue developing exactly as we do now, looking at statistics, we may then reach within a hundred years a catastrophe of a major kind such as major worry about access to clean water. There are often qualifying if's.

Serious ecologists also tend to say, If you would like to be with us, you are welcome. There are so many different kinds of things going on where you can help. So you can find your place. The twenty-second century may see the end of the ecological crisis.

I use the slogan "The frontier is long." There is a tendency to say, What I am doing for the environment is of the most important kind. Then the other one says, I am doing so and so; I think what I'm doing is of the most important kind. We never should say such things, because there are so many different tasks to be done and there are callings for so many different kinds of persons and capacities. If somebody is not yet an activist, we should find a suitable area for that particular person. Then say, Oh, excellent, we need people there. Just go on! We should not say, There are more important problems, you should do something else.

*What about cynical students? Deep ecology perspectives are appealing to many environmentalists and educators, and yet we live within the cultural and economic systems that give rise to so many problems. We cannot isolate ourselves from these systems. For example, I am now in Oslo and you were recently in Victoria and Vancouver, yet the consumption of the vast quantities of fossil fuels required for such travel seems at odds with our values. Given these potential inconsistencies, it is easy to "tear ourselves apart from within" or retreat into cynicism or lack of interest.*

AN: Well, I'd say to those who would like to be consistent, It's a high ideal to be consistent, and you will achieve it when you die—not before. As long

as you are an honest human being, you will see that you are inconsistent in ecological matters. And Gaia, she says to you, You may have a lot of bad habits but there are limits. If you have a bad habit, if you always must have the newest kind of camera—you can't also have the latest kind of tent. When I was invited to travel to the Antarctic, I could not resist the temptation, but I immediately announced that I would be glad to give lectures in Uruguay on deep ecology and the relationship between deep ecology and social ecology. So I said to Gaia, I am now going to Uruguay on your business, and then I might do this very bad thing: fly all the way from there to Antarctica. We are sinning in a sense, but we have a budget. You may think each year Gaia will give you a gift, a Gaia gift, of some ecologically bad habits—and the goal will be to have a little left even for Christmas. I never have.

If you live in Norway, it is very difficult to live all year within the scope of the gift, especially if you live in the city, so you must take into consideration where you live. You should think of this as a gift, and that She is very tolerant: She doesn't like it if you moralize to others—saying "I use the train, I'm not flying"—because we all are sinners in a sense. Very young people should be discouraged from trying to be perfect. Rather, they should try to classify bad habits and say, Here is a bad habit that really has some influence. Maybe I could change that—and then I keep some of the others.

*Some people might say that this is an easy way to rationalize bad habit.*

AN: It is an expression of realism, but of course it might be an invitation for some people to rationalize. On the other hand, there are people who feel and remember their imperfections too often, too much. Some are carrying a heavy burden all the time. So it goes both ways. Some need to be encouraged.

*I once had a student who seemed to think it was an all-or-nothing game — who did not seem to see any incremental way to make a difference because we needed such fundamental changes in every dimension of our society. He seemed to throw up his hands.*

AN: Well, here I learned from Gandhi. He had a vast revolutionary program, not so much to get the British out of India as to liberate the Indians from their own kind of authoritarianism and their corruption. He said, "One step is always enough for me. One step and then another one." We

have this one step as a major thing to accomplish—and having accomplished that little step, we then take the next step. “I am a compromiser, except on the fundamentals,” he said.

You may be a revolutionary in two senses, either try to make things happen fast and with violence, or make things happen more slowly and with nonviolence. Nonviolent revolutions are long-term revolutions. A revolution is thought to be something really important. It is about big things—like getting rid of slavery—but a minority, consisting of activists, is enough. The majority will hesitate, then say: “Well, I agree . . . okay.” A minority must stand up, as your students must do, stand up and say things. That’s an obligation.

*Alfred North Whitehead once said that “the merely well informed man is the most useless bore on God’s earth” (Whitehead 1949: 13). At least partly to blame, he argues, is that they are overladen with inert ideas. And you have said, philosophical insight “should be directly relevant for action” (Naess 1989: 37). But is action properly an aim of education or a logical and practical consequence of having acquired an education?*

AN: The education should itself consist of actions. You cannot have a dichotomy there. You can have something that is more like a piece of theoretical education and something that is more like a piece of creative action. When you walk—a little trip into nature with students—you cannot draw the line sharply at all between education and action, and you should not draw a sharp line between how you treat nature, how you behave, and how you act. We call this *friluftsliv* (Gelter, 2000). Life in nature is a major thing in Norway.

I stress the difference between activity and activeness. With activity you do things, play things. Activity can be seen by others, but in what I call activeness your whole person is active even though you may be completely quiet. No overt action. Moreover, something in your personality is somehow changing—maybe not always permanently, but for the moment. *Activeness* is an important term. You may point to somebody and think, He is in no activity at all; he has stayed at the same spot for an hour. Yet he may realize a high level of activeness.

In Japan a friend of mine helped me to gather about 100 people. We went into the forest at daybreak, and we said, Now let us say nothing to

each other. We will just listen to what the trees are saying. We had one hour of complete silence. We were active. We had a high level of activeness but showed no observable activity.

*Many people are looking for mentors who work toward bringing their actions and their ideas together. Would you care to give an example from your own life about how you formulated a position and then engaged in direct action?*

AN: For me, it was a question of whether we should get a lot of electricity by harnessing a great, beautiful waterfall. In this case the local population deeply liked that waterfall, and they were less interested in all the money from development—they preferred the waterfall as it was. I thought that was marvelous. You cannot join all the protests, but when there is something very special, you just leave what you are working at and you join in the protest, in my case at this waterfall.

If you wish to get into practical conflicts, you must train yourself. You must do the right thing but in a way that does not create antagonisms. For example, I always had excellent relations with the police, being arrested several times. I said, "I'm sorry I have to do this. I'm sorry, I have to lie down." Then, as I was being dragged along, I once asked them, "Do you get told how to carry—so that you can carry many people without hurting your backs?"

You should have a lot of self-respect. You must believe you are entitled to civil disobedience, but only after genuine efforts to avoid it.

*What about the teacher who lives on the west coast of Vancouver Island, who's concerned about environmental issues and is living near a logging community? The teacher wants to explore issues concerning human–nature relationships and relate these to logging or fishing. When all is said and done, what is the role of action?*

AN: If you find a particular environmental goal, then it is right for you to join in this direction, and invite the students to do the same while respecting the opponent fully. You only use, as I say again and again, the term *if*. If your priorities are in a particular direction, then it is appropriate to point toward relevant actions; but always act in a Gandhian way, always nonviolently. That implies maximum contact with the opponents and less talking with the converted. Let people in the logging community call you names, make it difficult for you. Never retaliate.



*How do we nurture action without being guilty of leading students in the direction of our own ideologies?*

AN: By means of the qualifying term *if*. You may say, "If we have a particular deep kind of priority and value, what then follows from this?" If you always use these qualifying *if*'s, then you are on the right side. You can go on arguing for three-quarters of an hour, but only *if*, from time to time, you preface a remark with the term *if*.

It is correct for you to lead people in your direction—toward what you think is right—but not in a wrong way. So it is completely right for you to do everything you can to have the community adopt your policy, but as a teacher, you should always do this with qualifying *if*'s: "If you have the following value priority, then. . . ."

*I can't help but think that we need to make space for something beyond advocating our positions, even with the if's. In an academic setting, you can logically make your point with the qualifying if's, but if you're teaching school in a logging town, people threaten to remove their children from school if a teacher even mentions the environment. There is a great amount of fear.*

AN: I understand. Better never mention "the environment" in class.

Let's say we discussed an environmental issue for forty minutes. You may end up by clarifying the position of loggers. Clearly elaborate your own opinion, but don't end up with that. End up admitting that the situation in your community is different from the situation in the community of your antagonists. We may continue to disagree, but let us look for areas of cooperation.

Arne Naess would be in pursuit of truth and validity. He would not claim an ultimate answer, but he would like to point in a direction.

## Notes

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### Chapter 1: The Function of Ideological Convictions

1. It is not necessarily true that “gross slogans and catchwords” are devoid of truth. Under certain conditions they may even be a sign of truth if something is clearly said, easily understandable. There is generally some rather unscientific (often clearly aristocratic) contempt of the truth of mass convictions and mass movements hidden behind the attitude of social scientists toward “gross slogans and catchwords.” Think of Nietzsche, Pareto, Ortega y Gasset! Perhaps at least some of the great teachings of politics and morals can be expressed only in the form of gross slogans and catchwords. Practically all the Ten Commandments belong to the same category. Nevertheless both the sayings of Christ and the Ten Commandments have been used by many persons seeking to avoid action based on misinformation. Yet both contain “solutions” and even scientific insights into the laws of human behavior. (Alexander Szalai)
2. Here the attention of the reader should be called to the fact that the development of a critical attitude *can* lead to unquestioned “ideological convictions.” Naess may be *for* a critical attitude and *against* unquestioned convictions; nevertheless it is a fact that practically *all* the important works of Marx, Engels, Lenin, and Stalin have been conceived and written as explicit criticisms of their opponents’ views. None of these works is “systematic” in the abstract sense of the word; all of them are examples of a critical attitude. Nevertheless they have led millions to “unquestioned ideological convictions.” It may be observed that it was possible to build up Socialism, in the sense of Marx and Lenin, on one sixth of the earth and to develop the most integrated political theory of all times without ever publishing a “textbook, by and large” —*only* publishing innumerable critical essays and books. There exists no such thing as a “textbook of Marxism” written by any established expert. And all real Marxists have built up unshakable convictions (which Naess dislikes) based on criticism that Naess regards as an antidote to unshakable convictions. (Szalai)

3. Naess seems to forget that the kind of pseudoknowledge that he rightly condemns is definitely not the consequence of a lack of real knowledge. Lack of knowledge does not lead in itself to aggressiveness. Pseudoscientific, theological, and other harmful ideologies are based on very realistic interests of ruling and exploiting classes. It is these class interests that account for their aggressiveness. Obviously, therefore, the dangers of pseudoknowledge cannot be liquidated solely by action on the level of scientific theory. Good textbooks on the comparative biology of human races are not sufficient weapons against Negro lynchers or Jew baiters. (Szalai)
4. This hint at an antithesis seems to me to miss an important point: “the liquidation of pseudoknowledge” cannot occur unless something *positive*, something that feels (to the thinker) like “new knowledge” (an addition to his means of dealing with insecurity) is there to take the place of the former concepts that have ceased to serve their purpose adequately.

It may be that there are two tendencies in social science: the one roots out error, the other regards an appreciation of the place of “error” in the mind of the “erroneous thinker” as one of the preconditions of satisfactory—i.e., objective—research. It is probably true that the largest contribution of social science in this century is the “liquidation of pseudoknowledge” in the sense that there is much written in that vein, but it is doubtful whether the statement would hold if “largest” means that which takes most factors into its scope. (John Rickman)

5. Naess proposes in these last paragraphs that generals of armies fighting against each other should accept the following “working hypothesis”: “Maybe the enemy is stronger. Maybe he is right in his war aims. Maybe it is not worthwhile at all to fight.” If Naess can convince all generals of fighting armies to accept this “working hypothesis” or if he can see to it that only people holding this “working hypothesis” become generals—then, of course, there will be no more wars. But is it not a somewhat abstrusely idealistic *petitio principii* to make such a proposition to generals? And is it not an evasion of the real issue? It would be easy to construct simpler, more probable, but *still* unrealizable utopian suggestions! (Szalai)
6. To be quite sincere, there is probably no known definition of social science to which this alleged “by definition” characteristic of Naess would fit. Is there *any* science at all that would have nothing to say about deliberately posed value judgments? (Szalai)
7. If Naess puts such different things together as the defense of “Marxism, Leninism, fascism, anti-Semitism,” then why not put together the defense of “goodness of heart, mother’s love, sympathy, prostitution, cruelty against children, murder”? It will be seen later in this chapter that Naess becomes increasingly unable to write down the word *communism* without associating it

with “fascism.” That is exactly the neurosis all imperialistic warmongers are trying to spread in the world. No such neurosis ever existed in the conference room of UNESCO where this symposium was conducted. (Szalai)

8. Naess's list of “keywords having important functions in ideological controversies and crusades” is not inclusive. He could have written out the whole of Webster's dictionary since there is no word at all that could not figure in them. The fact that he includes in *his* selection communism *and* Nazism, planned society *and* Nordic way of life, shows only that he himself has become a prisoner of “keywords.” (Szalai)
9. To call the punishment of quislings an “aggressive treatment” seems to be a rather jocular exaggeration of liberalism. And a very bad joke too! It reminds one of the anecdote about the doctor who did not use his rifle against the attacking tiger because “He is a human being after all, isn't he?” (Szalai)
10. Every fight is a fight *against* something rather than *for* something. Or else there is no fight at all. To put it more correctly, there is a dialectical synthesis of “for” and “against” in *every* fight. (Szalai)
11. Again Naess is a victim of the verbal obsession that the word *communist* cannot be written down without adding “and fascist.” I may take this opportunity to point out that, although “communist” and “fascist” are antitheses, “democratic” and “dictatorial” are *not*. Bourgeois democracy means dictatorship of the possessing class, i.e., the bourgeoisie. In a modern capitalist society only the possessing class can make full use of the “freedoms.” And exclusive freedom for a class means nothing but dictatorship by the same class. Everybody has the right to found a newspaper in the United States—but how many people have the dollars for such an investment? Or, as Anatole France has formulated it, “There is full equality in France. . . . Rich and poor people have got the right to sleep on the benches on the Seine embankment.” Marxist-Leninists are much more sincere than the theoreticians of bourgeois democracy when they declare openly that up to the point where all classes are liquidated, proletarian democracy means dictatorship of the proletariat. No equal rights for everybody can be realized without equal material possibilities for everybody to make use of these rights! (Szalai)
12. What is meant here by *trivialization*? Why does it trivialize the issue in philosophical discussions if one shows that “narrow conflicts of interest,” i.e., class conflicts, are to be found at their roots? This makes them even more serious! Has anybody ever heard of a discussion becoming less violent, less hostile if somebody “trivialized the issue” by showing that elementary material interests of the disputing partners are involved? (Szalai)
13. This statement seems to me to accord more with the aspirations of textbook writers than the experiences of a textbook reader. As an ex-schoolboy—

perhaps the experience is widely shared—I can say that a textbook had less influence than the person who recommended it in class to our attention. When we thought our history teacher an ass, we did not usually cherish the views of the historians he commended; when we thought well of him, we joined in his appreciation of his own masters and absorbed what they had to say.

And surely also to give so much value to textbooks is to underestimate the importance of preschool experience in the development of the personality and the capacity to join with others in cooperative enterprises. This isn't a new theory. When the Jesuits said "Give us a boy until he is seven and you can do what you like with him afterwards," they weren't thinking of textbooks. (Rickman)

14. Except for the work of some anthropologists, notably the Cross Cultural Survey developed under the direction of George P. Murdoch of Yale University, little effort has been spent on the search for the common ground of mankind. Up to now research has usually emphasized differences. A vast project of investigation, absolutely basic to the interests of peace and to the success of the United Nations, is the preparation of an *encyclopedia of the uniformities and similarities* in respect to aspirations, beliefs, and practices of all peoples. (G. W. Allport in *Journal of Social Issues* 1950, 4: 30)
15. "Even in Nazism!" What a fine liberal point of view regarding the "final" aims of Nazism! If Naess is right, it is a pity that the Nazis have not succeeded in exterminating *all* inferior races. Then a situation would have been reached where the organized infliction of pain is used only as part of "sport activities." It must be sincerely said that such sentences as this last one of Naess would be regarded in many countries as a cynical contempt of the feelings of millions of widows and orphans who owe the ruin of their lives to Nazism. Admittedly, Naess had no such thing as cynicism in mind. But benevolence alone does not seem to be sufficient. (Szalai)
16. If that were really all that can be expected from social scientists, then we should pose the famous question of Lynd: "knowledge for what?" And give the answer he has given! (Szalai)
17. The analysis offered by Naess seems to me wise and helpful. As he insists, there are no simple causes of national aggressiveness. But, also as he insists, a rigid ideology, supporting prefabricated notions of means-end relationships, can be a vastly important source of mischief. In my own chapter in this volume I make the same point in terms of people's expectancies regarding the inevitability of conflict. When such expectancies exist, induced often by ideologies, aggression readily ensues.

Naess notes the danger of relativism inherent in his position. I think he worries needlessly about the matter. For he himself clearly shows there is no

basic incompatibility between single-minded devotion to a value or to an ideal and criticalness—even scepticism—regarding ideological formulations of the ideal in question. To strive ceaselessly for ethically approved goals is essential to a healthy development of personality, but to be flexible and experimental in respect to means and formulas is equally hygienic for the individual, and of course necessary for favorable human relationships.

Perhaps Naess is too pessimistic in his view that the function of social science at the present time may be primarily *negative*, that is, to liquidate pseudoknowledge, to debunk overrigid ideologies and their attendant preconceived solutions. He underestimates, I think, the *positive* contribution that social science can now make to the discovery of common purposes and to the fashioning of peaceful means-end procedures for the attainment of these purposes. (Allport)

18. The most important aspect of Naess's discussion is, I think, his characterization of what might be called, in a somewhat different terminology, the danger of paranoid patterns of thinking. The diffusion of this pattern can be observed throughout contemporary society and it is by no means limited to any particular ideology. Even theories that are basically true may assume paranoid functions if they are accepted rigidly and mechanically and not subjected to a life-process of continuous thought and open-minded experience. To look for the *formal* constituents of "stereopathic" thinking rather than to limit the investigation to any specific ideological content is, in my opinion, a very productive approach to our problem. Moreover, I should like to underscore his emphasis on the means-end relationship, particularly his formulation of how the increase in the means of production in Western society has tended to deflect attention from ultimate ends. This certainly defines a highly critical area of modern culture. I fully agree with most of his suggestions, especially with those on the function of ideologies. The following remarks are motivated by the idea that even exact science has to be careful not to become transformed into "scientivism" and thus fall under the category of dogmas and panaceas that Naess justifiably criticizes.

It seems to me that Naess is so strongly influenced by certain epistemological controversies of a logical and semantic nature that he therefore tends to give too much weight to purely logical deficiencies in the present-day thinking of the masses. The impression is sometimes created that certain practices in the fields of philosophy and social science, such as the "quest for absolute certainty," are directly responsible for the rigidity and standardization of modern ideology. Although an interrelationship no doubt exists, I should not hold departmentalized institutions of learning responsible for deformities that may well be the product of much more fundamental structures of our culture.

The constant warning against premature conclusions and foggy generalities implies, unless properly qualified, a possible taboo against all thinking. If every thought has to be held in abeyance until it has been completely corroborated, no basic approach seems possible and we would limit ourselves to the level of mere symptoms. This may even jeopardize the very ideological objectivity postulated in the article. The appeal to scientists to foster a critical attitude toward general solutions could easily be misinterpreted in the sense of a critique concerned merely with certain undesirable manifestations of our civilization rather than with the forces, inherent in its total structure, that produce such manifestations. In other words, too much scientific self-control may involve a definite political philosophy, a kind of easygoing "academic" approach. This is certainly not the aim of Naess's suggestions.

The latter point is reflected in a somewhat too benign evaluation of the destructive forces bred by the present situation. The assertion that "the daily observation that human beings do not intentionally make each other suffer prolonged pain except in very limited kinds of situations in which they think it necessary for self-preservation, or in which they react to frustrations of such intensity that we may class them as highly abnormal" is hard to reconcile with the world of concentration camps. The torturers did not act for the sake of self-preservation nor were they subject to "highly abnormal" frustrations. No approach to group tensions can get at the core of the matter unless it is constantly aware of what happened to millions of Europeans. A formulation of the problem that regards events of this scope as mere exceptions would no longer be realistic.

I fully agree with Naess that it is erroneous and reactionary to blame the scientific spirit, "scepticism and relativism" for the crisis of modern civilization. However, by limiting the scientific spirit to the cool head and surrendering the ultimate values to the warm heart, he establishes a division that in my opinion is as pernicious to the concept of truth as it is to the humanistic ideas that guide him. If this division were maintained, we should either have two kinds of truths torn asunder in medieval fashion—or the concept of truth itself would be sacrificed. The ultimate values would be a matter of arbitrary choice; those who would reject the idea of the humane altogether would be on as safe ground philosophically as their opponents—which would in turn substantiate the very charge of nihilism against which Naess defends the scientific spirit. I believe he has outlined the real task by asking, How can the division between means and ends be overcome rationally rather than perpetuated philosophically? (Max Horkheimer)

## Chapter 2: Analytical Survey of Agreements and Disagreements

Unless otherwise indicated, the notes in this chapter reference sections or pages of *Tensions That Cause Wars* (Common statement and individual papers by a group of social scientists brought together by UNESCO), edited by H. Cantril (Urbana: University of Illinois Press, 1950).

1. See appendix I, pp. 513–21.
2. P. 89.
3. P. 69.
4. P. 164.
5. P. 147.
6. P. 95.
7. P. 195.
8. P. 303.
9. P. 80.
10. P. 112.
11. P. 297.
12. See Horvath, p. 95; Lefebvre, p. 147; Plamenatz, pp. 303–05.
13. P. 164.
14. Pp. 111–12.
15. Pp. 367–68.
16. Pp. 96–99.
17. P. 80.
18. Pp. 365–66.
19. Pp. 1–2.
20. Pp. 120–21.
21. Pp. 172–73.
22. Pp. 295–96.
23. P. 330.
24. P. 361.
25. P. 391.
26. In a section not included in *Tensions That Cause Wars*.
27. Pp. 196–98.



NOTES TO PAGES 41–48

28. P. 364.
29. Pp. 47 ff.
30. P. 364.
31. P. 112.
32. Pp. 48–49.
33. P. 69.
34. Pp. 106–10.
35. P. 165.
36. P. 69.
37. Pp. 48–49.
38. Pp. 109–10.
39. P. 165.
40. Pp. 221–22.
41. P. 295.
42. P. 330.
43. P. 364.
44. The general problem of persuasive use of key terms is discussed in Stevenson (1944); see also Perelman (1946). Results of psychological experiments on persuasive use of keywords are found in Hartmann (1936: 336–57); Sherif (1937: 450–61); and Doob (1948).
45. Pp. 109–10.
46. P. 132.
47. P. 147.
48. P. 198.
49. P. 295.
50. P. 330.
51. More explicitly so in answers not included in *Tensions That Cause Wars*.
52. Question 7; see p. 516.
53. P. 71.
54. P. 98.
55. In a section not printed in *Tensions That Cause Wars*.
56. P. 199.
57. All these longer historical studies are included in *Tensions That Cause Wars*.

58. Question 4; p. 515.
59. Pp. 364–65.
60. Pp. 178–81.
61. P. 198.
62. P. 264.
63. Pp. 304–06.
64. Pp. 391–93.
65. Pp. 331–46.
66. Question 6; see p. 516.
67. Bober, in an answer not included in *Tensions That Cause Wars*.
68. P. 166.
69. P. 123.
70. P. 199.
71. Pp. 246–51.
72. Pp. 95–98.
73. In answers not included in *Tensions That Cause Wars*.
74. See pp. 516–19.
75. Pp. 519–20.
76. Question 8; p. 516.
77. P. 166.
78. P. 379.
79. See, for example, Zaslavski (1947).
80. Question 9; see p. 516.
81. P. 367.
82. In answers not included in *Tensions That Cause Wars*.
83. P. 297.
84. P. 579.
85. P. 166.
86. Pp. 283–84.
87. Pp. 393–94.
88. In a passage not included in *Tensions That Cause Wars*.
89. Pp. 200–02.
90. Pp. 367–68.

NOTES TO PAGES 56–67

91. This survey, part B, sec. IV.
92. Question 11; see pp. 516–18.
93. P. 71.
94. P. 396.
95. P. 167.
96. P. 112.
97. P. 102.
98. P. 188.
99. P. 264.
100. P. 396.
101. P. 264.
102. In question 11, the word *results* was used; “contents” covers more adequately what we had in mind; see p. 517.
103. Opinions on the methods-contents distinction were urged in question 16; see pp. 517–18.
104. A distinction particularly elaborated by Juan Zaragueta along traditional Catholic lines.
105. A list of meanings is given by Field, p. 84.
106. Questions 12 and 13; see p. 517.
107. P. 167.
108. See final paragraph of the questionnaire, p. 521.
109. P. 415.
110. P. 152.
111. Pp. 150–51.
112. Pp. 432–40.
113. Pp. 1–12, 16.
114. P. 72.
115. Pp. 173–77.
116. Pp. 201–02.
117. Pp. 287–92.
118. Pp. 315–21.
119. Pp. 345–53.
120. Question 10; see p. 516.
121. P. 43.

122. P. 200.
123. Pp. 258–59.
124. Pp. 340–44.
125. P. 379.
126. Pp. 394–95.
127. In comments not printed in *Tensions That Cause Wars*.
128. Pp. 412–13.
129. In answers not printed in *Tensions That Cause Wars*.
130. Pp. 152–54.
131. Pp. 356–57.
132. P. 379.
133. P. 388.
134. P. 43.
135. Pp. 203, 204.
136. Pp. 406–07.
137. Pp. 416–17.
138. See also Sweezy's replies, pp. 410 ff.
139. See Marshall, pp. 216 ff.; Pool, pp. 347 ff.
140. Question 19; p. 518.
141. Pp. 73–74.
142. In answers not included in *Tensions That Cause Wars*.
143. Pp. 73–74.
144. Question 20; see pp. 518–19.
145. Pp. 350–51.
146. Pp. 372–75.
147. P. 208.
148. P. 401.
149. P. 104.
150. P. 13.
151. Pp. 156–57.
152. Pp. 359–60.
153. Pp. 113–14.
154. P. 170.

NOTES TO PAGES 78–83

- 155. P. 293.
- 156. Pp. 325–26.
- 157. Pp. 445–46.
- 158. Pp. 105–06.
- 159. P. 114.
- 160. P. 209.
- 161. P. 350.
- 162. P. 193.
- 163. P. 300.
- 164. P. 14.
- 165. Pp. 156–59.
- 166. Pp. 358–59.
- 167. Pp. 105–06.
- 168. P. 114.
- 169. Pp. 404, 411.
- 170. Kelsen (1929).
- 171. Question 26; see p. 520.
- 172. Pp. 114–18.
- 173. In answers not included in *Tensions That Cause Wars*; cf. p. 446.
- 174. P. 404.
- 175. In Ducasse's comments, pp. 406–07.
- 176. See Field's comments, pp. 416–17.
- 177. In comments not included in *Tensions That Cause Wars*.
- 178. In answers not included in *Tensions That Cause Wars*.
- 179. Question 30; see p. 521.
- 180. P. 17.
- 181. In an answer not included in *Tensions That Cause Wars*.
- 182. P. 105.
- 183. Pp. 118–19.
- 184. Pp. 211–12.
- 185. In an answer not included in *Tensions That Cause Wars*.
- 186. P. 405.
- 187. Pp. 436–37.

188. P. 405.
189. Pp. 406–07.
190. Pp. 416–17.
191. Question 29; see p. 521.
192. P. 301.
193. In an answer not included in *Tensions That Cause Wars*.
194. In an answer not included in *Tensions That Cause Wars*.

### Chapter 3: Ideology and Rationality

1. The terrifying aspect of a small number of ideologies in Europe in the period 1920–1950 previously led me to underestimate the varieties of nonabsolutist ideologies in the world. Therefore, I treated as *fairly general* those negative features of ideologies that I would now regard as exceptional, e.g., “claims on finality and certainty” and “distorted outgroup descriptions.” See my “Function of Ideological Convictions,” in Cantril (1950: 295). [Reprinted as the first article in this volume; see pp. 3–27.]
2. By Charles Bettelheim, M. M. Bober, G. A. Borgese, D. van Dantzig, John Dewey, C. J. Ducasse, G. C. Field, Risieri Frondizi, Barna Horvath, Jørgen Jørgensen, Humayun Kabir, Horace M. Kallen, Henri Lefebvre, C. I. Lewis, Lord Lindsay of Birker, J. H. A. Logemann, Richard McKeon, James Marshall, Emmanuel Mounier, Stanislaus Ossowski, Umberto A. Padovani, Ricardo R. Pascual, Aimé Patri, Chaim Perelman, John Petrov Plamenatz, Ithiel de Sola Pool, Ladislaus Rieger, Wilhelm Röpke, Alf Ross, Rudolf Schlesinger, Paul M. Sweezy, Eric Weil, and Quincy Wright. See McKeon and Rokkan (1951).

### Chapter 4: Science as Behavior: Prospects and Limitations of a Behavioral Metascience

1. To the above list of works, I should like to add some important ones that either explicitly discuss the possibilities of a behavioral science of science or are pertinent without explicit reference to our theme: Allport (1955), Bruner (1956), Geach (1957), Koch (1959), Kuhn (1962), Lewin (1952), Nagel (1961), Oakeshott (1951), Parsons (1949), Polanyi (1958), Popper (1945, 1957), Ryle (1949), Weber (1922), Winch (1958).
2. It is, of course, open to doubt whether any author, past or present, is in possession of a total view actually covering all science, and not merely of vivid intentional experiences within which there is nothing that calls for a halt—

for exceptions, restrictions, qualifications. I shall, for simplicity, ignore the distinction between a total view and an intentional experience covering a totality.

3. An inspection of recent volumes of the *Psychological Bulletin* reveals the great impact of the rigorous methodologists and system builders. The superiority of behaviorism (identified with the model stimulus-response correlation) to field psychology (response-response correlation) as argued by Burns (1960) does not apply to the behavioristic organism-environment view, because “environment” is analyzed into (1) environment for the observed organism and (2) environment for the observer. Burns writes as if the field concept of stimulus could only comprise (1).
4. This happy phrase I owe to an amazed listener to the account of the “experiment,” Prof. P. Suppes.
5. The well-known way out of this, to write “A *says* that so and so . . .,” has been sufficiently criticized to be passed over in silence.

#### Chapter 5: A Plea for Pluralism in Philosophy and Physics

1. The least unsatisfactory survey of different worldviews is that of Karl Jaspers in his *Psychologie der Weltanschauungen* (1919). The least unsatisfactory recent arguments for a monolithic rather than a pluralist view are offered by P. F. Strawson in his *Individuals* (1959). For the semantics and theory of argumentation used to establish the (relative) neutrality of ordinary language and of physical research toward a variety of worldviews, see my short *Communication and Argument* (1966 [SWAN VII]), or my long *Interpretation and Preciseness* (1953 [SWAN I]). That even Hegel’s world color can be reexperienced today, and even in England, is exemplified by F. N. Findlay in his *Language, Mind and Value* (1963); see especially p. 230.
2. See Popper’s stress on “rational discussion,” which I take as stress on *pro et contra*, and on contra-arguments against his own tentative conclusions. This necessarily introduces pluralism (i.e., at least *two* alternatives, two mutually inconsistent ways of reasoning on any subject) in his preface to *The Logic of Scientific Discovery* (1959).

#### Chapter 6: The Case Against Science

1. The term *counterculture* is used by many to denote aberrations from a dominant cultural trend. Others take it to denote groups with cultural ideals and behavior that clearly clash with the dominant. I shall use the term in the latter sense.

Lewis Mumford (1971: 340–41) uses the term *counterculture* in a sense that does not cover its most interesting manifestations when he speaks of “a counter-culture whose very disorder serves admirably to stabilize the power system.” Marxist-Leninism is not disorderly, nor are many religious and peaceful anarchist movements, but they certainly oppose all dominant trends.

2. Why is science an entirely satisfactory way of life to so many people? Research makes it possible to dig deeply into a subject, not just skim the surface. It calls on all the emotional, intellectual, and volitional faculties. It makes use of the inherent urge for identification with something greater than oneself.

The common view that competent research requires special intellectual faculties probably stems from the way in which researchers are selected and the kind of schooling that is required of them.

Basically, persistence, motivation, patience, and imagination are more important than a high I.Q. The history of science speaks of the special achievements of a tiny minority of exceptional individuals. This keeps alive the image of research as the work of cold, superior intellects.

3. See, e.g., E. F. Schumacher, “Buddhist economics,” in Daly (1973).
4. See the reference section for books and other resources cited.
5. See Feyerabend (1975a & 1975b).
6. See Naess, (1973 [in SWAN X]).

## Chapter 8: Why Not Science for Anarchists Too?

1. Published in Cohen and Wartofsky (1967).
2. See Kampik, 1974; Ostrander and Schroeder (1973); Weiss (1969); Schadewaldt (1974).

## Chapter 9: Nonmilitary Defense

1. The population of Norway in 1962 was 3.5 million. In 2004, it is 4.48 million.
2. It is probably true of most nonmilitary methods of defense that the actions recommended are more effective the more they are engaged in as ends in themselves—as parts of a way of life rather than as means for defense.
3. Examples are the earthquakes in Morocco and Chile, floods in India and England, famine in China and India. Such help should be available on an adequate scale as soon as the need is known. Hence, there must be reserve resources available on instant call.



4. Had adequate help been ready for the 900,000 refugees from the Palestine conflict from 1945 to 1948, it is possible that current tensions in the Near East would be less intense. The UN General Assembly appropriated the small sum of \$5 million and requested all countries to contribute to a fund for a peaceful solution of the refugee problem; few governments responded and only \$35 million was collected (about one-tenth of the cost to Britain and France of the Suez invasion). Despite energetic efforts, the agencies involved could do relatively little. Now the problem is complicated by rigid official positions adopted by the Arab states and Israel, and the constructive program has been shoved into the background while propaganda and fruitless discussions on the question of guilt occupy the foreground. This is only one of the many cases of refugee crises throughout the world, from China to India, Africa to Hungary.
5. This does not imply always providing the invader with all the information he requests.
6. For a classification with examples of sixty-five techniques of nonviolent resistance (in the sense of resistance without weapons), many of which would be applicable in such a situation, see G. Sharp, "The methods of non-violent action" (1960).
7. Microresistance: resistance by individuals and tiny, temporary groups carried out in such a way that exposure and annihilation of larger organizations and institutions do not affect it, at least not directly.

#### Chapter 10: Can Violence Lead to Nonviolence? Gandhi's Point of View

1. See Gandhi's article in *Harijan*, December 9, 1939.
2. It is tempting to quote the Norwegian author Axel Sandemose's private quarrel with Gandhi in *Brev fra Kjørkelvik* (1953): "So-called restraint is useless, whether it is deliberate or forced. What you have constrained will sooner or later demand to be let out. You should not make believe that you can stop hitting people and abusing them before you have found something else to do." Something else to do was exactly what Gandhi offered.
3. A Norwegian author is reputed to have gone so far as to identify hatred toward oppression with hatred toward the oppressors. This is an extremely un-Gandhian statement.
4. Nevertheless, the British police in India were often brutal. Nonviolent fighters with broken skulls and crushed genitalia were to be found in the hospitals. See Webb Miller's firsthand description of police brutality during the salt *satyagraha* in his book *I Found No Peace* (New York, 1936), quoted in Fischer (1962b: 100–101).

5. Even Martin Luther King, Jr., views Gandhi primarily in this light. Of his own struggle he said, in his Nobel lecture in Oslo on December 11, 1964: "This approach to the problem of racial injustice is not at all without successful precedent. It was used in a magnificent way by Mohandas K. Gandhi to challenge the might of the British Empire, and free his people from the political domination and economic exploitation inflicted upon them for centuries. He struggled only with the weapons of truth, soul-force, non-injury, and courage."
6. For details, see Andrews (1930) and Diwakar (1946).

#### Chapter 11: Consequences of an Absolute No to Nuclear War

1. Many scientists seem to reject this presupposition: they think that civilizations with the capacity to destroy themselves through nuclear force are likely to do so within fifty to one hundred years.
2. For comprehensive treatment of this subject, see Schell (1982). I have also profited from the publications of the Stockholm and the Norwegian peace conflict research institutes (SIPRI).
3. The consequences of black-painting were clear in World War II. The government of Germany was able to keep the war machine going in 1944 and 1945 largely by announcing that defeat would result in *definitive* subjugation of the German people.
4. On destruction of the natural environment, see Westing (1977, 1980) and Rotblat (1981). For a short, excellent outline, see Galtung (1982: 34–40). The unacceptability of treating the nonhuman world with moral indifference is well argued by Routley and Routley (1979: 36–59). Human "light" living on earth promotes peace. Voluntary simplicity is indispensable; see Elgin (1981).
5. Institutionalized mutual aid and concern are typical of most nonindustrial communities and cultures of moderate geographical extension. It seems that the unique stress on material progress and growth in our societies requires aggressive, individual competition incompatible with an economy of mutual aid. An instructive recent example is the incompatibility of the competitive "welfare" state and mutual-aid institutions among Greenlanders (see, e.g., Jensen [1973: 447–58]).
6. The best articles and documents on Green economics and politics are written in the German and Scandinavian languages. Notable exceptions are some of the works of E. F. Schumacher, the small-is-beautiful prophet. They combine economic and philosophic issues. Hazel Henderson's *Politics of the Solar Age: Alternatives to Economics* (1981) is rather rhetorical but takes care of some of the

Green positions. W. Leiss's "Political aspects of environmental issues" (1981) is a good example of an American article on the politics of environmentalism. It appears in an excellent anthology on the philosophy of deep ecology. On this concept and its social and political relevance, see Arne Naess, "The shallow and the deep: Long-range ecological movements" (1973).

7. *WRI Newsletter* 192, (February 1983). On unilateralism, see polls referred to in *Time* magazine, 31 October, 1983, p. 32.
8. This is more a consequence of the size and complexity of the United States than of the likely success of its citizens in implementing a policy of nonviolent resistance. When people from occupied Europe visiting the United States after World War II asked "To what extent would the American people be able (if willing) to carry out large-scale nonviolent noncooperation under occupation?" the answer they received from Americans was usually rather pessimistic, because of the Wild West tradition of shooting villains and because of the heterogeneity of the populace. (Local communication and loyal cooperation are more difficult among widely different cultural groups.)
9. It must be remembered that important sectors of the populace in Poland and other eastern European states were, in the decisive year after World War II, not resolutely and strongly in favor of the Western powers. I find the work of Czesław Miłosz revealing in this connection; see *The Captive Mind* (1955).
10. The Gandhian concept of freedom and self-realization is discussed in Naess (1974b [SWAN V]).
11. I here talk about felt quality of life, something different from quality of life defined in such a way that the opinions of *B* about the quality of life of *A* are relevant. For example, *B* might say that the life of *A* is profoundly unhealthy and will result in *A*'s death, whereas *A*, if asked, would honestly maintain that his or her life is healthy and happy.

#### Chapter 12: Is Freedom Consistent with Spinoza's Determinism?

1. In formulating this paper I have profited greatly from reading two unpublished manuscripts by Ragnar H. Naess and from subsequent discussions.
2. Compare what he says, in chapters 3 and 6, on prediction of calamities, miracles, victories. My point is only that Spinoza has a concept of prediction and could have discussed its relation to various kinds of determination—if the problem had engaged him, which it did not.
3. It is notable how consistently and repetitiously Spinoza uses *imaginari*. In theorem IIP40, and the short proof and note, he uses forms of *imaginari* seven times, and he uses near-synonyms or substitutes.

4. Spinoza's view on so-called fatalism and desire is complicated. The subject is not treated in the *Ethics* and we shall not take it up here.
5. Similarly, free men who live among ignorant men try to avoid receiving favors as much as they can (IVP70). In the concluding note to part IV (IVP73Sch) he uses the expression *vir fortis*, the man of strength (*fortitudo*), as a synonym for *homo liber*, the free man. This also suggests degrees of freedom. That there are degrees of strength, even among the strong, is scarcely open to discussion.

### Chapter 13: Through Spinoza to Mahāyāna Buddhism or Through Mahāyāna Buddhism to Spinoza?

1. See 1P17, 17Cor2, and 4P4, all quoted by Wetlesen 1978: 29.
2. Evidence referring to the text of the *Ethics* is given in my *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (1975 [SWAN VI]). See especially part E, "The Road to Freedom Through Active Emotion," pp. 82 ff.
3. A rather wide concept is introduced and used in my *Freedom, Emotion, and Self-Subsistence* (1975 [SWAN VI]: 57). What Wetlesen says about grading does not automatically hold for the "gradual" approach of that work.

### Chapter 15: Spinoza's Finite God

1. The following is a list of eleven *Deus quatenus* expressions, all from the small text unit IIP5–IIP11Cor:
  1. *Deus, quatenus est res cogitans* (IIP5)  
God as thinking thing: God insofar as he is a thinking thing
  2. *Dei natura, quatenus est res cogitans* (IIP5Dem)  
God's nature, insofar as he is a thinking thing
  3. *Dei essentia, quatenus, ut res extensa consideratur* (IIP5Dem)  
God's essence, considered as extended thing
  4. *Deus . . . , non quatenus infinitus est* (IIP9)  
God . . . , not as infinite: God . . . , not insofar as he is infinite
  5. *Deus . . . , non quatenus est res absolute cogitans* (IIP9Dem)  
God . . . , not as far as God is a thinking absolute being
  6. *Deus quatenus . . . affectus consideratur* (IIP9)  
God . . . considered as affected
  7. *Deus . . . , quatenus alio affectus est* (IIP9Dem)  
God . . . as affected by (an) other
  8. *Deus . . . , quatenus alio cogitandi modo affectus consideratur* (IIP9Dem)  
God . . . considered affected by an other cognitive mode

9. *Deus, quatenus alia idea affectus consideratur* (IIP9Dem)  
God as considered affected by an other idea
10. *Deus . . . , quatenus per naturam humanae mentis explicatur* (IIP11Cor)  
God . . . as explicated through the nature of the human mind
11. *Deus . . . , quatenus humanae mentis essentiam constituit* (IIP11Cor)  
God . . . , insofar as he constitutes the essence of the human mind

#### Chapter 16: Einstein, Spinoza, and God

1. Translation by Sommerfeld. Quotation from the *New York Times*, 25 April, 1929, p. 60, col. 4.

#### Chapter 17: How My Philosophy Seemed to Develop

1. In preparing this contribution to *Philosophers on Their Own Work*, I have profited from reading the other biographical reflections in this series.
2. Note on the peacefulness of shore life: Books and films generally portray animal life in shallow seas as a brutal fight for existence. The remarkable peacefulness and cheerfulness that I and others have experienced there is influenced by many factors: The rapid movements of small creatures rarely suggest depression, boredom, lassitude; very often they suggest vivacity, joy of life, swimming, playing. The small predators mostly eat organisms so tiny that they are unseen, or the prey disappear at once into the mouth of the predator, suggesting very rapid death without prolonged pain. The eating or destroying of others does not occupy much time. If ten organisms are observed in an hour, there is perhaps only one case, occupying ten seconds, of killing (I do not count the eating of planktonic microscopic animals). Furthermore, even if, in theory, the animals are always on the lookout for suitable prey, they seem in practice to be engaged in a variety of activities and to enjoy moving around.

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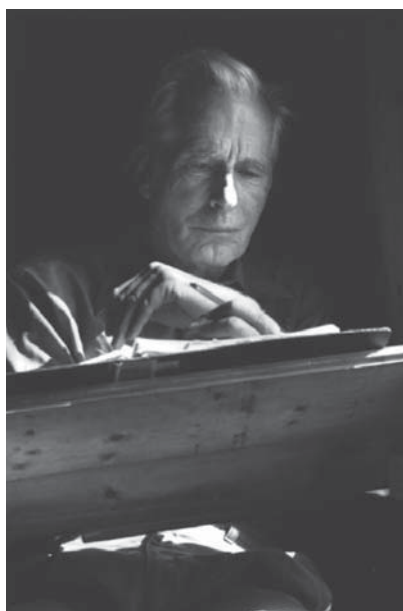
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# The Selected Works of Arne Naess

## Deep Ecology of Wisdom

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Explorations in Unities of Nature and Cultures  
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## Author's Introduction to the Series

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At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was

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"A philosopher." In fact, I had already conceived of myself as one. I viewed the writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that "What do I mean?" is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these "ordinary" people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems

discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my



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knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclination very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions

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for improving the readability of the first editions of *Scepticism* (SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity, attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

## Preface

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*by Bill Devall and Alan Drengson*

Arne Naess is a mountaineer, activist, teacher, scholar, philosopher, and national hero in his native Norway. When he attended the famous Vienna Circle discussions during the 1930s, he was impressed by the compassion and assistance that members of the circle gave to one another. During that time he also began studying Gandhi's nonviolent direct action campaigns in India. He later wrote a book (SWAN V) articulating Gandhi's norms of nonviolent direct action.

Born and raised in Norway, where outdoor life, or *friluftsliv*, is part of the national culture, Naess began climbing as a child. As a young man he built a hut high in the mountains, a place he calls Tvergastein. At Tvergastein and at the University of Oslo, he explored the history of Western and Eastern philosophy and also the history, biology, and geology of Mount Hallingskarvet, where his hut is located. At seventeen he started reading Spinoza's *Ethics*. He found in Spinoza's work an inspiring account of emotions that he has explored in his writings and personal experience. His own life's philosophy is called Ecosophy T, as it was born in the mountains at Tvergastein. Naess coined the word *ecosophy* from the ancient Greek words *ecos* for household place and *sophia* for wisdom. An ecosophy is a personal philosophy of life aiming for ecological wisdom and harmony.

The articles in this anthology were written during the decades from the 1960s through 2000. They represent Naess's evolving reflections on the deep ecology movement, diverse ecosophies, and ecophilosophy. He was the first to use the words *deep ecology movement* to refer to the international grassroots ecology movement that is united by a number of platform principles he calls the Eight Points. The first two principles emphasize the intrinsic value of all beings and of richness and diversity in life-forms and

cultures. Some of his main works in semantics, logic, philosophy of science, comparative philosophy, Gandhi, and Spinoza are found in other volumes of the SWAN series.

The theoretical and philosophical underpinnings of Naess's approach to deep ecology are found in this volume in section 7, "Understanding Naess's Unique Approach to Deep Ecology," and section 8, "Theoretical Dimensions of Deep Ecology and Ecosophy T." Readers who are particularly interested in the technical philosophical aspects of his ecophilosophy approach can read those sections before reading his work relevant to public policy issues and lifestyles, which are earlier in the volume, sections 2 and 3. Readers who want to understand his approach to the deep, long-range ecology movement could begin by looking at the "apron diagram" and his explanation of it in section 1, "The Long-Range Deep Ecology Movement."

The broad and representative selection of Naess's articles in this anthology should dispel some of the misconceptions about ecophilosophy and the deep, long-range ecology movement. We hope that new generations of readers, scholars, and ordinary people will appreciate the range and depth of his work. Throughout his career he has advocated what he calls "radical pluralism" and argued that philosophy is not restricted to academically trained philosophers. People in all walks of life, holding vastly different "ultimate norms," that is, different religious and philosophical positions, should develop their own ecosophy and total view. They can apply principles of the deep ecology platform to their lifestyle, politics, social policies, and community. They can better articulate their "sense of wonder" for nature and what they can do to lessen their own impacts on their place and the world.

Naess turned his attention to environmental issues and ecophilosophy during the 1960s. He read books by Rachel Carson, and her sense of wonder for nature inspired him to work on shifting to quality of life values and a nature-oriented sensibility that finds joy in the world of diverse beings. Carson's sense for the interconnected nature of the world and her scientific evaluation of the negative effects of massive herbicide and pesticide use are described in her book *Silent Spring* (1962). This turned him to thinking about the accelerating negative impacts on nature by contemporary industrial civilization and larger issues of ultimate aims and norms.

His first foray into ecophilosophy was in 1965 when he wrote a short

essay, "Nature ebbing out," published here for the first time. In the United States, the first Earth Day in 1970 was a historical landmark of the widespread concern over the accelerating destruction of nature by the forces of industrial society, rapid human population growth, and the rampant destruction of habitat for native species.

He presented his well-known seminal paper "The shallow and the deep, long-range ecology movement: A summary" in 1972 at an Eastern European conference on the future of research. In this paper, he describes the "shallow ecology movement" as an instrumental valuing of nature. It involves the "Fight against pollution and resource depletion. Central objective: the health and affluence of people in the developed nations." He said that this mainstream view is not a deep questioning approach. It assumes that we can go on with business as usual without deeply examining and changing our values and ultimate purposes. He describes the "deep ecology movement" as involving the recognition that we have to examine our basic relationships, values, and priorities with respect for each other and the natural world. Living beings are good for their own sake and have intrinsic value. This deep questioning approach leads us to see how our values, whether explicit or assumed, engender lifestyles that fail to honor our ecological responsibilities and the need for fundamental changes in industrial society. Ecologically based approaches involve "Rejection of the man-in-environment image in favor of the relational, total-field image." We are part of the larger ecological context and cannot stand outside it. We participate in it and affect it no matter what we do. It supports and affects us.

Some critics felt that the "shallow" and "deep" terminology was inappropriate. Naess replied that he was pointing to our usual "shallow" way of thinking and comparing it to a deeper questioning that could yield surprising insights and different, more creative ways of thinking, acting, and being in the world.

Section 1 of this anthology includes articles reflecting his emerging and changing articulation of what he calls the "basic intuitions of the deep ecology movement." These articles in this book span four decades from the 1960s through the 1990s. They expand on themes that Naess considers central to the deep, long-range ecology movement. He consistently uses the term *movement* when he discusses deep ecology. As an activist for peace, social justice, and ecological responsibility, he was deeply influenced by

Gandhi's work on nonviolent, direct grassroots action. He continues to say that the vast majority of supporters of the deep ecology movement, whether they use the phrase "deep ecology" or not, share an "intuition" that everything hangs together, and they feel a broader identification with nature. They seek to develop their own ecosophy or lifestyle to realize ecological wisdom. Naess is a long-term advocate for the peace and social justice movements. He points out that both of these movements should cooperate with the ecology movement. For the health of the planet and the health of human beings, an overriding norm should be "Ecological sustainability!"

Naess says that the deep ecology movement is one of the three great international grassroots movements of the twentieth century; the other two are the peace and social justice movements. He says that while these movements should cooperate with each other, the ecology movement has a special responsibility for conversations with and conservation of nature. The relationship between what he calls "ultimate premises," "the platform of the deep ecology movement," and specific coalitions for social change can be encouraged between greens, social justice advocates, and the peace movement, as briefly described in the article on the "apron diagram." In that explanation, he makes clear that his study of the international ecology movement is connected to a larger appreciation for grassroots movements. He distinguishes between four levels of discourse when discussing these issues.

The level of everyday life assumes certain values in our ordinary practices. When we begin to seek deeper clarification of our ultimate values, we are involved in deep questioning that leads us to state our ultimate norms and views about the nature of the world. The three great international grassroots movements each have a number of principles of a general nature that serve as a uniting ground, even though these movements are supported by people from different nations, cultures, and religions who hold different ultimate philosophies. The platform principles of the deep ecology movement proposed by Naess are stated in section 1 of this book. The four levels of discourse he describes are: ultimate philosophies, platform principles, policy formulations, and practical actions. There is great diversity at the level of ultimate philosophies but some unity at the level of platform principles. In the three great movements referred to above, there are platform principles that serve to unite people at the global level, although they have different personal philosophies and cultures. Policy and practical

action are also more diverse since they are adapted to specific cultures, places, and individuals. Naess says that the ecology movement is enriched by this wonderful cultural diversity and that it is unwise to try to have only one ultimate philosophy or religion in the world. Instead, his vision is of a great diversity of cultures and ecosophies. Followers of the deep ecology movement are inspired to work together locally and globally to move our societies and personal lives toward sustainability. Naess is a celebrant of individual and cultural diversity, believing that this is nature's way and that these are all interdependent with ecological diversity.

Naess continually encourages people to consider their own way of living in the world, both in politics and in daily life (sections 2 and 3). As a scholar of Spinoza, he urges us to consider the relevance to our personal lives of Spinoza's philosophy of feelings. By focusing on positive emotions, we increase our freedom and sense of belonging to a larger world. While many other writers evoke despair and hopelessness in our contemporary situation, Naess emphasizes various forms of joy. We can find joy in watching small birds, walking among wildflowers, enjoying companionship with friends, family, and nature. In the face of continuing, daily assaults on wild places, he advises us to have "a sense of joy in a world of fact" to keep our balance and inspiration. One of his favorite slogans is "The front is very long." There is a place in the deep, long-range ecology movement for all people who share the desire to dwell responsibly in this world. People can contribute to the well-being of other human beings and of nature in a wide variety of ways, including doing beautiful actions. His article "Beautiful Action: Its Function in the Ecological Crisis" (chapter 16) reflects his appreciation for the intrinsic value of certain types of action.

Naess has many sources of joy based on the Norwegian tradition of "free-air-life" (*friluftsliv*), which developed more than a century ago in Scandinavia as a social movement to spend more time outdoors through skiing, mountaineering, orienteering, and other forms of intimate contact with the natural world. His ecophilosophy is grounded in outdoor living and activities, empirical studies, and philosophical reflections.

As a mountaineer, Naess has been inspired by the mountains to write some of his most insightful and deep articles in ecophilosophy. He leads us to see how we can feel that mountains are sentient beings, and in stories they are also metaphors and mythic places, where he learned deep lessons



encouraging articulation of his own Ecosophy T. As already mentioned, the *T* is shorthand for Tvergastein, the mountain hut at which he wrote many of his books and articles. His use of mountains to illustrate lessons in deep-ecology living in balance is reflected in section 5, "The Significance of Place: At Home in the Mountains" and in other articles published elsewhere. His use of mountains in personal myth and as metaphors is reflected in this anthology in such articles as "Metaphysics of the Treeline," "Modesty and the Conquest of Mountains," "Some Ethical Considerations with a View to Mountaineering in Norway," and "The South Wall of Tirich Mir East."

Naess's work in ecophilosophy is connected to his broader reflections on "total systems." This book includes a selection of his reflections on "ultimate premises" and his methodology of "radical pluralism." These articles are essential to understanding the approach he takes to ecophilosophy. Articles in section 7 express his approach to and use of ontology and normative systems and include "Reflections about Total Views," "Notes on the Methodology of Normative Systems," and "The World of Concrete Contents."

Consistent with his emphasis that his approach to deep ecology is not restricted to academic philosophers, Naess has written articles on resolving social conflicts between human beings and wild animals such as whales, bears, and wolves. He emphasizes "nonviolent, direct action" based on Gandhi's ethics of conflict resolution. Examples of these articles in section 4 are "Self-Realization in Mixed Communities of Human Beings, Bears, Sheep, and Wolves," "The Tragedy of Norwegian Whaling," and "Philosophy of Wolf Policies I: General Principles and Preliminary Exploration of Selected Norms."

Naess has consistently encouraged supporters of the deep, long-range ecology movement to reflect on contemporary subjects of lifestyle, population growth, and sustainability of human communities. Articles on these issues include "Deep Ecology and Lifestyle," "Cultural Diversity and the Deep Ecology Movement," "Sustainable Development and Deep Ecology," and "Migration and Ecological Unsustainability." In contrast to some writers, he stresses that wildness and protection of wild places, some of which are inhabited by indigenous peoples, are essential for wise policies in all nations. He appreciates the wisdom in the lifestyles of many indigenous peoples as consistent with the platform principles of the deep ecology movement.

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This anthology concludes with section 9, "Deep Ecology and the Future," which includes some of his reflections on issues for the twenty-first century and beyond. He believes the problems are huge, but so is human resourcefulness. He encourages us to live richly by appreciating the diversity of cultures and beings in this world we all share. He says that we should seek rich experiences using simple means, and take joy in simple pleasures. We can have a very rich life with low consumption of material things.

This volume concludes with a selected bibliography of Naess's works in English. It provides source material for scholars who want to pursue research into the development and formulation of Naess's lifework.

At ninety-two Naess continues to practice nonviolent direct action. He has done so throughout his long and distinguished career as a philosopher, activist, and articulator of deep ecological and social values. He also enjoys Gandhian tennis and boxing.

We hope that readers gain intellectual understanding of deep ecology through the articles in this anthology. We hope they will be inspired to articulate and live their own ecosophies, personal lifestyles committed to nonviolence, harmony with nature, and living fully and joyfully in the world. Let us go beyond what is merely required to act in beautiful and generous ways, giving gifts back to Gaia and our home places.

Bill Devall and Alan Drengson

2004

## Author's Preface

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### *Reflections on My Papers and the Selections in SWAN VIII–X*

During my active life as a researcher and author, I have published far too much to be a polished writer. I have a long practice of working a set number of hours each day, and at ninety-two I have lived a long life. I hold to this even when I live in my mountain hut, Tvergastein. Over the years I have carried in many precious big reference books to put in its “library.” Writing philosophy in the hut, while looking over a vast mountain and alpine landscape, gave me a different feeling and perspective than when working in my office at the university or in my study at home. Each setting is very different and seems to bring out different aspects of the same subject and of myself. There are also the differences in dialect and local customs that fed my search for an ever more complete total view. To me this diversity is good to appreciate for its own sake. Writing, like teaching, is a way to find out things rather than just a dull report on the past. Writing philosophy for me is an ongoing project, a kind of meditation; in a sense, it is something that I must continue daily, because I continue to have more and more *gestalts* integrated into my total view with feelings of wholeness.

I never regarded the papers or even the books I wrote to be final drafts, but always works in progress, since my life, philosophy, and worldview are all in an ongoing process of change. Altogether, I have probably written thirty or so books published in various languages, and some in several languages. I have had many coauthoring adventures. There are manuscripts of books started but still in progress. I probably have some finished but unpublished book manuscripts. In the area of smaller-scale publications and writings, there are many kinds of pieces from very short to very long—for example, short reviews, long reviews, discussions, definitional pieces, long

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single-subject essays, historically oriented papers, formal logic pieces, empirical studies, studies of conceptual systems—pieces on so many different subjects that I am somewhat embarrassed by my lack of attention to other things. I almost always write with passion but am not so keen to keep detailed records of my scholarly research, and at Tvergastein these resources are limited.

I have hundreds of manuscripts of articles, reviews, and other nonfiction pieces in my collection. The SWAN project has been a wonderful undertaking because it helped me to get my works organized to be more accessible to a larger audience. My dear wife, Kit-Fai, has been so good to my work that I can only describe her acts as beautiful. She, along with Harold Glasser, Alan Drengson, and others, plied me with endless questions about my works and individual pieces, for references, for greater clarity, for a better organization in time, and so on. The result is an assemblage of more than seven hundred published and unpublished papers.

We were choosing books to publish and papers for the anthologies of my selected works in English. We settled on seven books to be republished as the first seven volumes in the SWAN series. After some discussion with others, we decided to have three volumes of my papers for a total of ten volumes. We pondered what to include in the anthologies of papers and how to organize them. The result is a collection of writings that is a very deep and broad representation of the large number of papers of my work. The first two volumes are devoted to all the subjects I have worked on, from earliest to latest. These collections (SWAN VIII and IX) are organized in thematic sections somewhat chronologically. We decided to devote the third collection to my writings on deep ecology, because they are the most complete example of a total view that I have been able to offer.

*Deep Ecology of Wisdom* (SWAN X) is in many respects the most complete volume in the series in that it shows the total sweep of my work. It shows how my comparative and ecological inquiries brought together all my interests and studies. It was also a natural place for me to apply empirical semantics guided by a personal mythology, an undertaking that in the 1990s was offered in my book *Hallingskarvet: How to Have a Long Life with an Old Father*. The Tvergastein article in SWAN X (chapter 33) is an example of the philosophical, empirical, and semantic studies that were saturated with this place through time. SWAN X also includes a comprehensive bib-

liography of my works in English, which gives readers the most direct access to this whole body of work. Everything in my work is represented, from Spinoza's philosophy on emotions and Gandhian nonviolent communication, to essays on ontology and mountaineering. All of my work comes together in SWAN X. Readers will see the role of my desire to further nonviolent communication and my scepticism about there being only one worldview that is "true." These reflect my love of diversity.

I have mountain perspectives on worldviews. So many of them are beautiful and so suitable to their places! It is a wonder for me to behold this creative diversity. I found the same on the ground around my hut in the extreme mountain arctic conditions there. Even there, worlds within worlds! In that setting, life energies and mysteries are ever present. I came to approach all research from philosophy to ecology as if I were a field naturalist. This is reflected in my writings. Writing for me is a process of creation, discovery, and systematization; an art that helps me to assimilate and be whole with the more I see, as time goes on, from so many different perspectives. A synoptic view, almost holographic, emerged in my writings in many places. Traveling a lot added to learning these things.

Questions of meaning, preciseness, and interpretation are central to all that I do. We greatly underestimate ourselves in relation to our capacities, but we also greatly overestimate (violently at times) the seeming importance of disagreements over words that are frankly not very precise. The very effort to become more precise is itself an enlightening process that, once started, continues with a natural flow on its own. It is a settled practice that flows through my writing. Gandhian nonviolent communication also runs through my daily writings and practices; it is a second nature. My writings are active engagements, and for this reason I do not find them boring or painful. It is a joy to write about these many subjects that have engaged my passionate interest, especially in relation to the natural world.

Readers of these three volumes of selected papers who want to see my work in a more or less organic way that is roughly historical should read these papers in order, SWAN VIII through X. Those who want an overall look at my whole program of research, writing, and lifestyle should first read volume X. They could also read the last two chapters in SWAN IX, "How My Philosophy Seemed to Develop" and "Deep Ecology and Education: A Conversation with Arne Naess."

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I have been reflecting on my writings and the way I approach and feel about this work. Let me say something about the different research hares I have chased and the lesser peaks and major mountains I have climbed in the process. I will do this by focusing on a recent ten-year period, from 1987 to 1997.

What has made me eager over the decades to continue writing articles in such great numbers? My spontaneous answer is that these are important questions not only for me but also for everything that it is worthwhile to sustain or develop further. By chance, this very sentence exemplifies a question of this kind: what is meant by “not only for me but . . .” and who is the “me” here? Among such questions there are some to which, as an optimist, I feel I can still contribute. These questions fall into two categories: those related to the ecological crisis and those philosophical questions far away from the ecological crisis. Writing for me is a series of adventures that are part of a larger mythopoetic nature narrative.

I thought that in recent decades the environmental crisis articles would make up the majority of my papers during this time, but to my astonishment that is not the case. For example, in the five years from 1991 to 1995, 61 percent of the articles published [by 1997] deal with general philosophical issues, and 68 percent of the unpublished ones are of that kind. Some of the articles are short, only five pages, which in part explains the large number of articles—78 published and 130 unpublished—during this time. I do very little to get my articles published.

One of the philosophical articles has the title “We need philosophies as life- and worldviews.” Many articles, some used in lectures in various parts of the world, deal with what I hope will characterize university philosophy in the twenty-first century: addressing central questions of what constitutes a meaningful life, diversity of cultures, and the nature of reality. Who are we, where are we, and what do we want most? The last question concerns value priorities. University philosophy, *not* the philosophy of “the man in the street” or of writers in general, has been centered on our talk itself, not on what we talk about. It is often talk about talk. The latest fad has been to stop talking about the variety of conceptions of the world in favor of talking about what are called social constructions, just to mention a focus different from life philosophy and worldviews. (Is nature a big *social* construction?) Clearly, as soon as we start *talking* about anything, for example,

about what is "talk," what is "social," and what is a "construction," we are using a *social* creation, *intersubjective* talking. This does not undermine our excellent, direct relations to the matters we talk about and, I am glad to say, have different views about, some of which are quite personal and individual.

I will not bother to explain all the approaches I have taken within the philosophical sphere. I shall only offer some hints. In ethics I have taught, lectured, and written on the conception of being a "traitor," a word applied to tens of thousands of Norwegians who in different ways were "on the wrong side" during the Nazi occupation of Norway by Germany. Many who did not deserve it were put in prison. Many believed that Hitler would win the war and that the continued independence and freedom of Norway depended on maintaining good relations with the occupying power.

Norway twice has said "No thank you!" to joining the Common Market, now called the European Union. I have written against joining on the basis of a philosophy that favors cultural differences. The EU is a big step in the direction of economic globalization, a formidable obstacle to cultural integrity and diversity. Some call this effort of mine "applied philosophy," and I agree.

I have called a class of life- and worldviews *Spinozistic*, and my own view belongs to this class, but that does not *imply* accepting as true or valid any of Spinoza's axioms and theorems. A long series of my articles deal with Spinoza, especially the central position of strong active emotions as a requirement for increasing our freedom and power, a rather un-Western view! I have explored and written about many Eastern philosophies, including Indian and Chinese. Some of my articles compare Spinoza's views with Buddhist philosophies.

Gandhian studies continue with what I call the "principles of Gandhian communication," a form of strict nonviolence. The role of the mass media in tough conflicts makes fairness of central importance. Treatment of an opponent as a fellow human being must be without blemish, even when his views seem to be, or are, horrible, despicable, and idiotic—and even if he is a mass murderer. This treatment is *compatible* with the expression of a strong and honest rejection of the views and actions of an opponent.

*Felt* suffering has been an important theme in my papers for many years. There is a strange, socially and politically important underestimation of acutely felt suffering and an overestimation of a quantified but not necessar-

#### AUTHOR'S PREFACE

ily *felt* suffering. If by chance a hundred people living distant from one another simultaneously suffer from a slight headache, this multiplicity of persons does not make the felt suffering stronger. I am deeply interested in the quality, the *feelings* of strong suffering, not some "abstract sum" of suffering.

Suppose we have a chance either to rescue a person from continued, systematic torture or to diminish the slight pain of a million people. As I see it, the choice is ethically unproblematic: rescue the tortured person! Politically, the implication is clear: much greater effort is needed to help people in certain extreme conditions. This, of course, cannot be done without angering dictators. What I call the *intensity principle* in dealing with suffering is generally not considered valid, and the possibility of saving people from continued torture is judged to be very small. As I see it, the problem is that usually only conventional means are considered. We need people with imagination, people like those who rescued thousands of tortured persons during the Second World War and the occupation.

As a philosopher influenced by analytic philosophy and an admirer of mathematical physics, cosmology, and pure mathematics, I regarded the one-hundredth jubilee (1991) of the birth of Rudolf Carnap and Hans Reichenbach as an opportunity to rethink my opposition to their philosophical standpoints and to logical positivism in general. I deeply respect their work, and especially their clearness in the matter of premise-conclusion relations. I have worked hard with a normative system that has only one ultimate normative premise, "Self-realization!" It is a result of the influence of my studies in logic and formal systems. In their work, the logical positivists encouraged each other, discussed with fairness, and used each other's insights. They were not afraid of real disagreements. This is very unusual in intense philosophical discussions! I try to be fair and cooperate in discussions with my critics in social ecology and ecofeminism.

Going back to the five years from 1986 to 1990, I see that my papers are colored by contributions to the deep ecology movement. There is, however, a notable exception in my writings: what I call *gestalt ontology*. Ontology is an old branch of philosophy that tries to characterize what is real compared to what only appears to be real. Might a birch be bright green and joyful, or is it *really* colorless? Is joyfulness perhaps only a "projection" of joy being felt by an observer? Very roughly, my answer is that *spontaneous experiences* are direct experiences of something real. Joyfulness is



on a par with tallness and specific weight, when we only talk about pure realness. The experiences have a gestalt character. They are complex wholes, not merely atomistic.

The focus on spontaneous experience may be of positive value for deepening and intensifying positive experiences in nature. This focus also accepts the status of negative experiences. If, for example, a city dweller exclaims "Horrible, threatening" when suddenly facing a large waterfall, it is inappropriate to counter with the assertion "You are mistaken. It is really beautiful!" As to the character of being threatening, one might say that it would be a mistake to predict that the water will engulf us. This is just what gestalt ontology says. We can even have a slightly different version; it leads into rather professional philosophical terminologies. Its main thrust radically undermines the claim that only the exact physical sciences show us what is real. On the contrary, they increasingly focus on extremely *abstract structures* of what is real and do not, as sciences, describe any *concrete contents*.

As an outline of my work (from 1987 to 1997), the above gives a rough picture that is a fair description for earlier periods. I should perhaps add a word about my only published book in the 1990s: *Hallingskarvet: How to Have a Long Life with an Old Father* (1995). The main title is the name of a great Norwegian mountain; the subtitle refers to my personal relationship with the mountain. Already at age ten, I looked upon this mountain as being like a wise, benevolent father, but also as a supreme place to live. (My own father died when I was about a year old.) I found in this place an outline of my *mythopoetic life vision*. Many others, I suspect, are today creating such valuable myths of their own. I hope my writings encourage them. If so, these works will serve a useful purpose. So, finally, I am at the end of this written narrative. I invite readers to find their personal paths through this varied and multidimensional terrain of my writings. Follow your own wild passionate feelings.

Arne Naess

2004

I

THE LONG-RANGE DEEP ECOLOGY  
MOVEMENT

## Nature Ebbing Out

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Some people grasp a great new thought quickly and completely, but most of us take somewhat longer. I am one of those who has finally understood that ours is perhaps the last century in a very important respect. The spectacular, free, beautiful, and “dangerous” nature is about to disappear. Our children will live in a domesticated world in which everywhere they go, they will see human faces instead of the overwhelming face of nature. Even the giants of the Himalayas are being tamed. Helicopters buzz along the flanks of Daulagiri; soon technology will enable them to buzz around the highest summits.

The problems of protecting the environment are beginning to be taken up in Norway. Here, though, people’s attitude regarding natural resources seems to be that we still have more than enough. Those who support the exploitation of “our” resources probably think as Little Hans did when his mother warned him that if everybody stole, society would crumble and fall apart, and Little Hans said, “You are right, Mother, but society can very well endure that *I* steal!”

For those who watch the development in Norway with concern, it is a consolation to see how far environmentalists have come in the United States, where resistance has been stronger. Despite this resistance, they have managed to achieve more than anywhere else in the world, particularly in the domain of protecting national treasures. When it was rumored that the Grand Canyon would be declared a national park, a certain Mr. Cameron hastened to put “claims” (i.e., mineral excavation rights) on

This article, a plea to protect Innerdalen, a mountainous area on the west coast of Norway, was written in 1965 and translated from the Norwegian (“Natur ebber ut”) by Kit-Fai Naess. It is being published here for the first time.

places where one could get down into the canyon. His intention was to exact a toll from tourists, not extract minerals. This piece of private enterprise came to be looked upon as very smart. As it turned out, it was difficult and costly to get Mr. Cameron out of the Grand Canyon, although the authorities at last succeeded. Then, in 1920 when Cameron was elected to the Senate to represent Arizona, he avenged himself by making the grants for environmental protection extremely low. Even now it is considered good sport in some circles to buy up real estate in a rush and repair the buildings therein when it is rumored that the region is to receive "protected" status. It is assumed that the government will purchase the property at exorbitant prices.

Private enterprise is no longer the only obstacle. Environmentalists must now have expertise in law and social research. Until recently there were between forty and fifty governmental institutions in California alone that had in their power the ability to change the face of the country—and their activities were uncoordinated. Those who want to protect something must have an overall view of what is happening everywhere in order to forestall actions detrimental to the environment. The mighty Department of Transportation in the United States has control over a land area bigger than the whole of Norway, and to avoid too-broad, too-flat roads in protected mountain areas, one has to seek the personal blessing of the President.

The tangle of modern bureaucracy can be charted, but in recent years a major difficulty has arisen: every unused waterfall or log must be transformed into something that can be measured quantitatively. Its value must be registered in a computer, or else this magnificence of nature, this grandeur, cannot appear in tables and charts showing the country's riches and resources. Well-meaning economists have carried out this miracle of measurement for us. The music of Schubert and Beethoven is still played, hundreds of years after their death. With the proceeds from the performances of these composers' songs and symphonies through the years, we can calculate the use-value of certain phenomena, be they pieces of music or national parks. From this, the road to measuring the total value of nature areas is short. It is enlightening that the figures one comes up with are very satisfactory, convincing enough for the many who want "facts," not just romantic or impractical talk. We must not forget that people's usual concepts about resources, energy, and richness cover exactly the things that only

have value as means, things that *are not good in themselves*. What is and has always been perfectly good for itself, that which *cannot* be divided and quantified in dollar values, will be excluded from the calculation.

These are just a few words about the difficulties that, in many respects, have been overcome. We all have heard about America's wonderful Yellowstone National Park, Yosemite, and so on, but not everyone is aware that there are more than eighty wilderness areas of differing "degree of purity" where, for example, there are no buildings or roads. For Norway the fight for such areas ought not to have such a high priority yet, but the thought itself is of great importance. Wilderness areas give expression to the value of nature as something *totally* untamed.

When I think about how difficulties are overcome in other places, and how high our own Innerdalen ranks on whatever scale one chooses—beauty, easy access, or magnificence—I hope that its preservation will soon be a reality. If I were asked to name a characteristic of Innerdalen that surpasses all other characteristics, I would say it this way: maximum beauty or splendor *per cubic meter*. The landscape changes exceptionally fast when one moves in its terrain, and the distance from one wonder to the next is very small!

## The Shallow and the Deep, Long-Range Ecology Movement: A Summary

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The emergence of ecologists from their former relative obscurity marks a turning point in our scientific communities. Their message, however, is twisted and misused. A shallow, but currently rather powerful movement and a deep, but less influential movement compete for our attention. I shall make an effort to characterize the two.

The *shallow ecology movement* is concerned with fighting pollution and resource depletion. Its central objective is the health and affluence of people in the developed countries.

The *deep ecology movement* has deeper concerns, which touch upon principles of diversity, complexity, autonomy, decentralization, symbiosis, egalitarianism, and classlessness.

1. The deep ecology movement rejects the human-in-environment image in favor of the relational, total-field image: organisms as knots in the biospherical net or field of intrinsic relations. An intrinsic relation between two things *A* and *B* is such that the relation belongs to the definitions or basic constitutions of *A* and *B*, so that without the relation, *A* and *B* are no longer the same things. The total-field model dissolves not only the human-in-environment concept, but every compact thing-in-milieu concept—except when we speak at a superficial or preliminary level.

2. The deep ecology movement accepts biospherical egalitarianism—in principle. The “in principle” clause is inserted because any realistic praxis necessitates some killing, exploitation, and suppression. The ecological field-worker acquires a deep-seated respect, or even veneration, for

This article was reprinted with permission from *Inquiry: An Interdisciplinary Journal of Philosophy* (New York and London: Routledge, Taylor, & Francis Group) 16 (1973): 95–100.

ways and forms of life. He reaches an understanding from within, a kind of understanding that others reserve for fellow human beings and for a narrow section of ways and forms of life. To the ecological field-worker, the equal right to live and blossom is an intuitively clear and obvious value axiom. Its restriction to human beings is an anthropocentrism with detrimental effects upon the life quality of men and women themselves. This quality depends in part upon the deep pleasure and satisfaction we receive from close partnership with other forms of life. The attempt to ignore our dependence and to establish a master-slave role has contributed to the alienation of man from himself.

Ecological egalitarianism implies the reinterpretation of the future-research variable "level of crowding" so that general mammalian crowding and loss of life-equality are taken seriously—not just human crowding. Incidentally, research on the high requirements of free space of certain mammals has suggested that theorists of human urbanism underestimate human life-space requirements. Behavioral crowding symptoms (neuroses, aggressiveness, loss of traditions) are largely the same among mammals.

3. The deep ecology movement emphasizes principles of diversity and of symbiosis. Diversity enhances the potentialities of survival, the chances of new modes of life, the richness of forms. The so-called struggle of life, and survival of the fittest, should be interpreted in the sense of ability to coexist and cooperate in complex relationships, rather than ability to kill, exploit, and suppress. "Live and let live" is a more powerful ecological principle than "Either you or I."

The latter tends to reduce the multiplicity of forms of life, and to create destruction within communities of the same species. Ecologically inspired attitudes therefore favor diversity of human ways of life, of cultures, of occupations, of economies. They support the fight against economic and cultural as much as military invasion and domination, and they are opposed to the annihilation of seals and whales as much as to that of human tribes or cultures.

4. The deep ecology movement assumes an anticlass posture. The modern-day diversity of human ways of life is in part due to (intended or unintended) exploitation and suppression on the part of certain groups. The exploiter lives differently from the exploited, but both are adversely affected in their potentialities for self-realization. The principle of diversity does not

cover such differences—differences that arise merely because certain attitudes or behaviors have been forcibly blocked or restrained. The principles of ecological egalitarianism and of symbiosis support the same anticlass posture. The ecological attitude favors the extension of all three principles to any group conflicts, including those that exist today between developing and developed nations. The three principles also favor extreme caution toward any overall plans for the future, except those consistent with wide and widening classless diversity.

5. The deep ecology movement is also involved in the fight against pollution and resource depletion. In this fight ecologists have found powerful supporters, but sometimes to the detriment of their total stand. This happens when attention is focused on pollution and resource depletion rather than on the other points, or when projects are implemented that reduce pollution but increase evils of the other kinds. Thus, if prices of life necessities increase because of the installation of antipollution devices, class differences increase too. An ethics of responsibility implies that ecologists do not serve the shallow, but the deep ecology movement. That is, not just point 5, but all seven points outlined in this paper must be considered together.

Ecologists are irreplaceable informants in any society, whatever their political color. If well organized, they have the power to reject jobs in which they submit themselves to institutions or planners with limited ecological perspectives. As it is now, ecologists sometimes serve masters who deliberately ignore the wider perspectives.

6. The deep ecology movement emphasizes complexity, not complication. The theory of ecosystems contains an important distinction between what is complicated without any gestalt or unifying principles—we may think of finding our way through a chaotic city—and what is complex. A multiplicity of more or less lawful, interacting factors may operate together to form a unity, a system. We make a shoe or use a map or integrate a variety of activities into a workaday pattern. Organisms, ways of life, and interactions also form a workaday pattern. Organisms, ways of life, and interactions in the biosphere in general exhibit complexity of such an astoundingly high level as to color the general outlook of ecologists. Familiarity with this complexity makes for a keen, steady perception of our profound ignorance of biospherical relationships and, therefore, of the effect of disturbances.



Applied to human communities, the complexity-not-complication principle favors division of labor, not fragmentation of labor. It favors integrated actions in which the whole person is active, not mere reactions. It favors complex economies and an integrated variety of means of living (combinations of industrial and agricultural activity, of intellectual and manual work, of specialized and nonspecialized occupations, of urban and non-urban activity, of work in city and recreation in nature with recreation in city and work in nature, and so on).

It favors soft technique and "soft future-research," less prognosis and more clarification of possibilities, more sensitivity toward continuity and living traditions and—most important—toward our state of ignorance.

The implementation of ecologically responsible policies requires in this century an exponential growth of technical skill and invention—but in new directions, directions that today are not consistently and liberally supported by the research-policy organs of our nation-states.

7. Finally, the deep ecology movement supports local autonomy and decentralization. The vulnerability of a form of life is roughly proportional to the weight of influences from afar, from outside the local region in which that form has obtained an ecological equilibrium. This understanding lends support to our efforts to strengthen local self-government and material and mental self-sufficiency. These efforts, however, presuppose an impetus toward decentralization. Pollution problems, including those of thermal pollution and recirculation of materials, also lead us in this direction because increased local autonomy, if we are able to keep other factors constant, reduces energy consumption. (Compare an approximately self-sufficient locality with one requiring the importation of foodstuff, construction materials, fuel, and skilled labor from other continents. The former may use only 5 percent of the energy used by the latter.)

Local autonomy is strengthened by a reduction in the number of links in the hierarchical chains of decision. For example, a chain consisting of local board, municipal council, highest subnational decision maker, a state-wide institution in a state federation, a federal or national government institution, a coalition of nations and institutions (e.g., EEC top levels), and a global institution can be reduced to one made up of local board, nationwide institution, and global institution. Even if a decision follows majority rules

at each step, many local interests may be dropped along the line when the chain is too long.

Summing up, then, it should first of all be borne in mind that the norms and tendencies of the deep ecology movement are not derived from ecology by logic or induction. Ecological knowledge and the lifestyle of the ecological field-worker have suggested, inspired, and fortified the perspectives of the deep ecology movement. Many of the formulations in the above seven-point survey are rather vague generalizations, tenable only if made more precise in certain directions. All over the world, however, the inspiration from ecology has produced remarkable convergencies. This survey does not pretend to be more than one of the possible condensed codifications of these convergencies.

Second, it should be fully appreciated that the significant tenets of the deep ecology movement are clearly and forcefully normative. They express a value priority system only in part based on results (or lack of results; see point 6) of scientific research. Today, ecologists try to influence policy-making bodies largely through threats, through predictions about pollutants and resource depletion, knowing that policy makers accept at least certain minimum norms of health and just distribution. It is clear, though, that vast numbers of people in all countries, and even a considerable number of people in power, accept as valid the wider norms and values of the deep ecology movement. There are political potentials in this movement that should not be overlooked and that have little to do with pollution and resource depletion. In plotting possible futures, the movement's norms should be freely used and elaborated.

Third, insofar as ecology movements deserve our attention, they are ecophilosophical rather than ecological. Ecology is a limited science that makes use of scientific methods. Philosophy is the most general forum of debate on fundamentals, descriptive as well as prescriptive, and political philosophy is one of its subsections. By an *ecosophy* I mean a philosophy of ecological harmony or equilibrium. A philosophy as a kind of wisdom is openly normative; it contains norms, rules, postulates, value-priority announcements, and hypotheses concerning the state of affairs in our universe. Wisdom is policy wisdom, prescription, not just scientific description and prediction.

#### THE LONG-RANGE DEEP ECOLOGY MOVEMENT

The details of an ecosophy will show many variations. This is because there are significant differences not only in the "facts" of pollution, resources, population, and so on, but also in value priorities. Today, however, the seven points listed provide one unified framework for ecosophical systems.

In general systems theory, systems are usually conceived in terms of causally or functionally interacting or interrelated items. An ecosophy, however, is more like a system of the kind constructed by Aristotle or Spinoza. It is expressed verbally as a set of sentences with a variety of functions, descriptive and prescriptive. The basic relation is between subsets of premises and subsets of conclusions, that is, the relation of derivability. The relevant notions of derivability may be classed according to rigor, with logical and mathematical deductions topping the list, but also according to how much is implicitly taken for granted. An exposition of an ecosophy must necessarily be only moderately precise, considering the vast scope of relevant ecological and normative (social, political, ethical) material. At the moment, an ecosophy might profitably use models of systems, rough approximations of global systematizations. It is the global character, not preciseness of detail, that distinguishes an ecosophy. It articulates and integrates the efforts of an ideal ecological team, a team comprising not only scientists from many disciplines, but also students of politics and active policy makers.

Under the name of ecologism, various deviations from the deep movement have been championed—primarily with a one-sided stress on the problems of pollution and resource depletion, but also with a neglect of the great differences between under- and overdeveloped countries in favor of a vague global approach. The global approach is essential, but regional differences must largely determine policies in the coming years.

## The Basics of Deep Ecology

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I am very grateful to be here. Some weeks ago when I thought of this occasion I had two feelings. The first was that I was going to visit the British aristocracy! In school we learned a lot about the British aristocracy, and mostly it was positive. We got the notion that they were the best. By aristocracy I mean those who are in the forefront, the most enlightened and far-seeing members of society. I have a feeling that I am going to taste this British aristocracy today!

The second feeling was that I had come from one occupied country to another occupied country. The people of Norway were occupied from 1940 to 1945 by very unkind people. Now I feel that we are occupied by kind and well-meaning people. They do things for our welfare but in reality we feel completely estranged from the essence of the good life. I am sure that the same is true in Britain today. Only, I am glad to say, you were not occupied by bad people.

Those who occupy my country talk about the useless hills. Only a couple of days ago they referred to the useless hills in the neighborhood of Oslo, which, they thought, should be developed as a site for mansions. People who already have very nice houses could then go up to the hills and have still nicer houses by cutting down all the trees. So we are very far from a green and free society.

The realization of any society worthy of the name green presupposes that policies characteristic of deep ecology are adopted. The clarification of

A summary of the 1987 Schumacher lecture, this article was reprinted with permission from *Resurgence* (1988). It also appeared in *The Green Fuse: The Schumacher Lectures*, edited by John Button (London: Quartet Books 1990), 130–37.

#### THE LONG-RANGE DEEP ECOLOGY MOVEMENT

the term *deep ecology* will, I hope, contribute in a modest way to the realization of our aims. I am engaged in the articulation of the fundamental positions that are presupposed in green societies.

People ask, "Why can't we just feel and not articulate?" My answer is this: In our society there is constant communication, and we must be able to communicate on a verbal plane. If we are able to articulate our basic goals in life and get our opponents to agree to them, then we can go on to discuss practical matters such as "We must have more parking space." When we agree on basic goals we can ask, All right, what's the relation between our basic goals in life and this parking place? So, the articulation of our basic goals has an important role. We should never engage in any discussion on technicalities without asking, What do we basically need in life? Always ask the basic question. This is what I mean by the term *deep ecology movement*, or typical of supporters of it.

Let me then list some key sentences commonly held to be characteristic of a green society. It should be decentralized and should be a grassroots democracy. There should be social responsibility, mutual aid, and a reign of nonviolence. People should live in voluntary simplicity, with a high degree of self-reliance and with moderate mobility. Different generations should be able to live together and work together. There should be a feeling of community; technology should be appropriate; industrial and agricultural units should be small. Home and place of work should be near each other and transportation mainly public. There should be an absence of social hierarchy and an absence of male domination.

You will have noticed that all these concepts lack any kind of reference to nature or to ecology, but they are, of course, basic to a vision of a green society.

Then there are concepts of another type, namely, respect for nature, reverence for life, ecological agriculture, absence of monoculture forests, absence of animal factories, free access to nature, and so on.

Then there is a third aspect of the deep ecology approach. This is characterized by our deep relationship with the environment and a joyful acceptance of this relationship. It is taken for granted that the self is basically ecological. Talk about human beings in the environment is misleading, for we are as much out there as inside here. The beauty of a tree is as much in the tree as it is inside us. There is an object, a medium, and a subject, but

you cannot separate these three except as abstractions. People with this approach think in these terms: world first, men not apart, friends of the earth, ecological responsibility, the forest for the trees, hug the trees. If we say "the forest for the trees" we acknowledge that a forest is an end in itself; it does not need to serve any narrow human purpose.

The terms I have mentioned fall into three classes: those solely concerned with human society, those that combine society with nature, and those solely concerned with nature. Some groups working for the realization of a green society prefer the first class of slogans; others use the second or the third class.

There is an interesting difference between thinking green in central and Mediterranean Europe and thinking green in the marginal lands of north and south. By marginal northern and southern lands I mean Scandinavia, Great Britain, Canada, the northwestern United States, and Australia. I call them the "natural greens." Then there are the "social greens" in Germany, France, the Mediterranean, and many other places where more stress is put upon society. The social greens say that a wrong attitude to nature reflects a wrong attitude between people. Domination, exploitation, and lack of respect within a society result in the same attitude to nature. They assume that if you get rid of these bad attitudes within society, then, more or less automatically, your relation to nature will be okay. What you have to do is reform society. You have to get involved in politics. Don't disappear into the wilderness and live in a nice community as if this could be the norm of the whole society.

The natural greens say, "What's so exciting about people when you consider porcupines or whales? We have to reduce the human population and have a nice planet." That's a caricature of them, but there's a tendency to speak as if people were superfluous.

The supporters of the deep ecology movement combine the social greens with the natural greens while avoiding the extremes of both.

Some people have a concept of a green society that is utopian. They put into the term *green society* everything that is perfect. Others point out that Green party programs cannot just be descriptions of utopia. They must serve as blueprints for a major transition toward a green society. Fundamentalists say exactly how things should be while realists stress that in politics you have to use tactical considerations; a Green party cannot act in a utopian way.

#### THE LONG-RANGE DEEP ECOLOGY MOVEMENT

In discussions between fundamentalists and realists we should adopt the Gandhian form of nonviolence. In this you see the point of your opponent, you listen to the argument, interpreting benevolently, as far as you can. The Latin phrase is *Stupiditas adversariorum non est praeter necessitatem argumenendam*. That means you shouldn't make your opponent look unnecessarily stupid. During the 1960s we had a lot of different groups on the left. There was richness and variety, but they were fighting each other. Then came the ecology movement and from the very start there was a difference. There was much less of violent polemics. If your communication is consistently positive, you will get down deeper into the issues. If you say, "Wrong. You are absolutely wrong," your opponents will stick to their argument and say, "No, I was not wrong," but if you say, "Maybe you could put it a little differently," then you may be able to get agreement, and if you really disagree, you will be able to clarify it.

The supporters of the deep ecology movement are all over the world. A small minority are from the universities, a tiny fraction are writing about these matters, but our real strength is with those who don't give lectures but who are supporting the deep ecology movement in their lives. This movement started in the early 1960s with people like Rachel Carson. Those people were not speaking of cancer or of polluted air just because it was bad for humanity. They said, "It cannot be done to the planet, it cannot be done to nature, it cannot be done to the animals. It simply cannot be done." Those pioneers had a vision of reality that does not allow us to trample on natural life. Theirs was not a moral impulse—and I have the feeling that moralizing is not a great force in this world. So the ethics and the morals of environmentalism are of secondary importance. What is important is to get people to see reality and our relation to nature.

I introduced the distinction between "shallow" ecology and "deep" ecology. The supporters of shallow ecology think that reforming human relations toward nature can be done within the existing structure of society. They propose to make small changes here and there within the institutions; they suggest technical development to reduce pollution. They don't get down to the basics because they think that business can continue as usual. They will give a little more money to the department of the environment and to research. However, research only postpones the problem. There's a politician here in Great Britain who says that we must have more research

on the causes of acid rain. The better the researcher is, the more he or she says, "Oh, we don't know enough, we must have more money." Research is now on the wrong side. Researchers get one year to come up with some answers, but at the end of the year they say, "Well, we're just starting, it seems to be very complicated. We need more time and money." That's how endless research goes on.

The deep ecology movement will say that we can never know enough—*docta ignorantia*, conscious ignorance. The best field ecologists use their intuition about reality. They can, of course, find out a little here and there, but they cannot always know the long-range effects of human interference. They understand the enormous complexity of the planet and of ourselves. So from this *docta ignorantia*, we get the idea that it is better not to do anything in which great risks are involved. The politician, however, is here to do things. So either you say any action that may damage the planet is wrong and we cannot do it, or you say we cannot know whether it is wrong or right and therefore we must not do it.

The tendency of the supporters of shallow ecology is to avoid the basic questions, whereas the deep ecology movement concerns itself with basic beliefs and assumptions about the universe. If you articulate the principles of the deep ecology movement you get a total view. The term *total view* is essential. The deep ecology movement is a total view. It covers our basic assumptions, our life philosophy, and our decisions in everyday life. I have also called the total view an "ecosophy" in order to distinguish it from ecology as a science. *Sophia* is Greek for wisdom. So, ecosophy means eco-wisdom, and wisdom has always been related to practice.

When we in the deep ecology movement talk about pollution, we ask, Pollution for whom? There are so many living beings. Are you talking about pollution for human beings? What about pollution for others? When we talk about resources, we ask, What about resources for squirrels as well as resources for human beings? When we talk about pollution, we must also consider the optimum population of rats. I think we have to avoid feeding rats as much as we do. We always go from discussing the sphere of human life, which is important for us, to life in general. Moreover, we would say that any short-range solution should cover at least the next fifty years. In deep ecology, fifty years is a very short time. In contrast to this is the shorthand solution—that is, next year, next election.



In the deep ecology movement we are biocentric or ecocentric. For us it is the ecosphere, the whole planet, Gaia, that is the basic unit, and every living being has an intrinsic value.

The supporters of the deep ecology movement agree upon this, but in their very basic views about the universe and themselves, they may well disagree. They may have, for example, a Buddhist-inspired philosophy, or a Christian-inspired philosophy, or a nonreligious approach. At this most basic level we cannot understand each other. We cannot understand five or ten different religions. We shouldn't pretend to. It is culturally disastrous to pretend that we can understand all religions or all philosophies. That is a terrible error on the part of the universities—there are courses in all philosophies and all religions of the world, and the students are supposed to understand philosophers who are miles apart. I feel it is important in the deep ecology movement to have plurality, especially at this deepest level. However, from all religions and philosophical approaches we agree on the following points (comments are in parentheses).

1. The well-being and flourishing of human and nonhuman life on earth have intrinsic value, inherent worth. This value is independent of the usefulness of the nonhuman world for narrow human purposes.
2. Richness and diversity of life-forms contribute to a realization of these values and are also values in themselves. (Richness means we have to have an abundance of life of all kinds. We have to replenish the earth. In this sense, landscapes are living beings and so are rivers. I can't and I don't have to justify that diversity and richness; plurality of life is good in itself. People who claim to be realistic say, Well, I keep to facts. What, though, is the status of this sentence: *So-and-so is a fact*? In logic you need rules, and the goodness of those rules cannot be shown—they cannot be argued, they cannot come as a conclusion. If you say, "This rule of logic is valid," then I say, "Well, show me that, prove it." You have to use premises to arrive at a conclusion, and to do that, you have to have rules of inference by which you come from the premise to the conclusion. You cannot start by saying "I am for facts," because the term *fact* itself is a tremendously complex affair. Aristotle said that to try to prove everything is a sign of bad education. Diversity of life for us is such a premise; we don't need to waste time proving it.)
3. Human beings have no right to reduce this richness and diversity except to satisfy vital needs. (People say to me, "Oh, but what do you mean by

*right?*" I say, "I mean exactly the same as when children say, You have no right to hit my little sister"—and this is established practice among children, so there must be something in it.)

4. The flourishing of human life and culture is compatible with a substantial decrease of the human population. Flourishing of nonhuman life requires such a decrease. (Some people would call this "antihuman," but I believe that it is not good even for human beings that we number five thousand million and are soon going to be eight thousand million. It's not good even for the deep cultural differences on earth; it's very difficult to have cultural differences with no space in between. This significant decrease in human population will not happen overnight. It may take a thousand years. This is our long-range vision. People say, A thousand years has nothing to do with the problem of today. Yes, it does have to do with today. For example, we have to change our architecture. Old people need small children around because small children are, after all, important. So the architecture will have to be such that there is a common ground, without streets, where small children and old people can get together. If we have two children per couple on an average, then there will be a transition period of hundreds of years but eventually we will have a smaller population.)

5. Present-day human interference with the nonhuman world is excessive, and the situation is rapidly worsening.

6. Policies must therefore be changed. These policies will affect our basic economic, technological, and ideological structures. (I have not had the courage to go into detail and define what these different structures will be because we are going to have a lot of different green societies. We shouldn't have one set of structures imposed.)

7. The change in our attitudes will bring an appreciation of the quality of life rather than adherence to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great. (We will have a great society with no bigness. I am very much in love with the term *quality of life*. People say, "Well, that's just a slogan. Standard of living is quantitative—that we can discuss and understand—but *quality of life*, what's that?" I am very much for the richness and luxury that I have in my cottage in the high mountains of Norway. For more than ten years of living there, the feeling of richness has been tremendous. This is quality of life, however, not standard of living. If there is snow in winter, I dig down

#### THE LONG-RANGE DEEP ECOLOGY MOVEMENT

into a lake for water. To heat that water from  $-1^{\circ}$  to  $+1^{\circ}$  takes as many calories as to heat it from  $+1^{\circ}$  to  $100^{\circ}$ . So I use cold water for washing, but after one or two months of living there I feel very comfortable.)

In Great Britain and in Norway we have to accept a drop in our standard of living in order to have a standard that is universalizable. What I am saying is take it easy, take it easy; life quality may still be there, but you will have to shed some of your bad habits that destroy the planet. Much of the high standard of living is sheer bad habits that we cannot sustain because they are ruining the balance of Gaia.

8. Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement necessary changes.

## Deepness of Questions and the Deep Ecology Movement

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### Historical Perspective

Whatever the weaknesses we are all aware of, the term *deep* is going to remain central in the terminological structure of the deep ecology movement.<sup>1</sup> Is the deep ecology terminological structure complicated? It is nothing compared to what we have to get accustomed to if we participate in social and political debates. Here, I focus on only one approach in trying to make the term *deep* more precise in the relevant sense (thus eliminating interpretations that lead away from what is intended). The approach taken here is concerned with premise-conclusion chains.<sup>2</sup> This approach is concerned with the *deepness of premises* used in debates over efforts to overcome the ecological crisis.

There are other approaches—for example, the “deepness and broadness of attitude” approach. Let us say that the owner of a rock garden may treasure every life-form in the garden for its own sake, but this attitude is limited only to the garden. The attitude is not deep enough for this person to generalize it beyond the confines of the garden. Further, the shortcomings of society may be seen and felt by this person, and result in unrest and frustration, but the attitude is not intense enough to make the owner of the garden “problematize” all aspects of society. Whereas the premise-conclusion approach, if carried out systematically, requires some educa-

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tion (but not knowledge) in logic, the “deepness of attitude” approach leads to social psychology and social science in general. However, only a small group of a movement’s theorists can afford to spend much time on systematization.

Conservatism may be said to be the social movement that tries to conserve what is best in what already exists. Such short expressions of what a social movement “is” may have some value in some contexts, but generally a social movement requires fairly complex characterizations. Attempts to shorten them into one sentence, which is then treated as a so-called definition or criterion, are rarely successful—or the sentence gets to be too long and complicated. Definition may have a place in dictionaries, but rarely elsewhere.

In my paper “The deep ecology movement: Some philosophical aspects” (1986; see chapter 5 in this volume), the contrast between the deep and the shallow ecological movements is characterized in about two hundred words. One difference is said to be decisive: it “concerns a willingness to question and to appreciate the importance of questioning every economic and political policy in public.” The questioning is “deep” and “public.” Because I used the word *questioning*, not the Germanic *problematizing*, the misinterpretation arose that I found intellectual playful questioning of the kind encountered in graduate philosophy seminars sufficient. On the other hand, *problematizing* is a profound “existential” undertaking.

When one compares the two movements, however, the relatively deeper questioning in the sense of “problematizing” (*Problematizierung*) of the deep ecology movement is quite manifest. It is my *hypothesis* that any systematic contemporary philosophy will, if it takes a stand on the ecological crisis, support the deep ecology movement. Supporters of the deep ecology movement, therefore, have no systematic philosophy to oppose. The modern ecological predicament is the result of thoughtlessness rather than thought. In one sense we may say: if there is deep questioning, then this is compatible with Ecosophy T, or some other ecosophy articulating the perspectives of the deep ecology movement. “Deepness,” however, must include not just systematic philosophical deepness, but also the “deepness” of proposed social changes.

### Persistent “Whys” and “Hows”

Let us inspect the chain of questions in the following dialogue:

1. A: Turn on the gas!
2. B: Why?
3. A: Because we are going to boil the potatoes.
4. B: Why?
5. A: Because we ought to have dinner soon.
6. B: Why?
7. A: Because we should keep fit.
8. B: Why?
9. A: Because we should do what makes us feel happy.
10. B: Why?
11. A: Because happiness is what we ultimately desire.
12. B: Why?
13. A: “Happiness” means satisfaction of all biological and social needs.
14. B: Why?

At step 13 the pure why-chain turns from normative to descriptive. This may lead us into discussing the etymology of the term *happiness* and other unphilosophical specialties. The “whys” at 10 and 12 are within the traditions of philosophy and more profound, I would say, than at 8 or even at 14. Furthermore I would say, perhaps arbitrarily, that the “why” at 8 is more profound, or leads (or may more easily lead) into deeper water, than the “why” at 6. It is convenient to use two words here, *deep* and *profound*, letting *deep* refer to the premise-conclusion relations and letting *profound* refer to nearness to philosophical and religious matters. The latter term I leave unanalyzed.

At the start of introductory philosophy courses, my habit of persis-

tently asking why, whatever the answers to my questions (for example, “What time is it?”), makes the students bemused, bewildered, frustrated, or angry in a remarkably fruitful way for the whole course. In less than ten minutes, they are ready for anything.

Among other things, they realize that deep questions seem to be only “millimeters” away from the trivial, conventional, or silly. Some become unhappily bewildered because they feel that I am making fun of them, or that their sanity is being tested.

The unhappily bewildered remind me of the research on “tolerance of ambiguity” in the 1930s and 1940s motivated by the astonishing popularity of fascist and National Socialist ideas. One working hypothesis held that intolerance for the ambiguity of a situation correlated highly with indicators of acceptance of fascist ideas: that there should always be rules for correctness. The only test for saneness is correctness: to be *comme il faut*. Certain questions could (should) be asked, others could not. Idle wondering is dangerous, therefore “keep straight at any cost.” The fuhrer establishes the rules, thereby avoiding *embarrassing* bewilderment.

Suppose the above dialogue, at an early stage, went descriptive, and explanatory:

1. A: Turn on the gas!
2. B: Why?
- 3b. A: Because if you do not turn on the gas the water will not boil.
- 4b. B: Why?
- 5b. A: Because cold water needs heat from the gas in order to reach boiling temperature.
- 6b. B: Why?
- 7b. A: Boiling requires that water molecules attain higher velocities and these must be transferred from the hot flame of the gas.
- 8b. B: Why?
- 9b. A: Because, ultimately, quantum mechanical and thermodynamical laws prescribe certain conditions to be fulfilled.

10b. B: Why?

11b. A: We have no good reason to think that heating might be done otherwise than in conformity with physical and chemical laws or theories accepted today.

12b. B: Why?

Again, we have landed in philosophy. Why-strings in science inevitably lead us beyond science. Sequences of “how?” show similar traits. Sooner or later we arrive at fields of inquiry typical of philosophy.

1. A: Turn on the gas!

2c. B: How?

3c. A: Put your fingers here and turn to the left.

4c. B: How?

5c. A: Activate certain muscles of your underarm . . . !

6c. B: How?

7c. A: By deciding to do so.

8c. B: How?

9c. A: Pull yourself together!

10c. B: How?

11c. A: Use your free will!

It seems that we can lead a dialogue out of philosophy even when continuing our whys and hows, but not without certain kinds of diversionary steps or sidetracking maneuvers:

12c. B: How?

13c. A: By a careful study of the philosophy of personal development.



It might be possible to keep the dialogue within the borders of techniques of study a couple of steps farther, but roughly the conclusion holds that persistent questioning leads to deeper questions.

The importance of this conclusion is limited because whereas question number  $n$  may lead deeper, question  $n+1$  may lead back to trivialities as exemplified by 12c. We must consider, too, which concepts of "depth" are intended? "Deep mathematical theorems" are one thing; "deep grammatical structure" is something else. Is philosophy invariably deep? Deep waters can be distinguished from murky ones, but how are deep questions and answers distinguished from murky ones? Let us say the dialogue takes this turn:

$x$ . There is something rather than nothing.

$x+1$ . Why?

$x+2$ . . . .

Some of us will characterize the Heideggerian literature at step  $x+2$  as murky rather than deep, or at least as both murky and deep.

In a critical situation, a complex proposal  $A$  (concerning how to act) may be said to be based on a set of premises, some of them explicitly formulated in  $A$ , the others playing the role of unarticulated "presuppositions" (Collingwood 1948). Suppose a proposal  $B$  is based upon the same set of premises except one, an unarticulated presupposition  $P$ .  $B$  questions (problematizes)  $P$ , does not find it tenable, and rejects proposal  $A$ . In this critical situation,  $B$  may be said to *question more deeply* than  $A$ , and the deeper question may be said to be "Why  $P$ ?"

The above is meant just to touch upon the difficult questions we face when trying to formulate fairly simple (but useful) analyses (precizations) of "deep questions," "deeper questioning," and similar expressions.

These questions do not, in my view, undermine the usefulness and appropriateness of the designation "deep ecology movement," but they do justify the remarks made by Warwick Fox, David Rothenberg, and others, that what deep ecology theorists write is often sketchy, tentative, and preliminary (using my words rather than theirs). Theoreticians for the peace movement, and especially the Marxist-inspired social justice movements, have produced much heavier thought together with highly elaborated doc-

trines. Unfortunately, the widening of the ecological crisis seems to give us more than enough time to gain in profundness.

Comparing argumentation patterns within the shallow and deep movements, I find that although supporters of the deep ecological movement (as characterized in certain texts) ask deeper questions, they are rarely zetetics—questioning everything. On the contrary, like Rachel Carson, they tend to have firm convictions at a deep level. This is also true of people in the other two great movements—the peace and social justice movements.

Inspecting my examples of why- and how-strings, some might wonder: are they not also suited for introducing concepts of “*p* being sillier than *q*”? This question reminds us of the concept of *relevance*. When questions of what to do (or not to do) in a given situation are relevant, why- and how-strings sooner or later become irrelevant. They get sillier from the point of view of action. For example, if we start a string of questions and answers concerning why and how we eat, eating becomes more and more relevant as the hours pass. Action (in this case, eating) cuts the Gordian knot but leaves all questions open, and leaves all answers invoked to account for decision and action questionable.

For example, the main reaction of the U.S. Department of Agriculture and the chemical industry to Rachel Carson's accusations in *Silent Spring* (1962) was “Wildly exaggerated!” If this factual and normative premise is accepted, then the questions raised by her are clearly irrelevant, and some of them are even silly. From 1963 to 1989 there have been vast differences of opinion concerning the gravity of the ecological situation. One may roughly distinguish an extreme optimism, a moderate optimism, a moderate pessimism, and a black pessimism (the “doomsday prophets”). The supporters of the deep ecology movement consider the ecological crisis to be grave, and this may be seen by some as pessimism. Tremendous efforts will be necessary, and the transition to wide ecological sustainability will be painful for most people. The supporters of the shallow movement tend toward optimism. Some do not even acknowledge that there is anything like a crisis but support vigorous action to investigate the ozone layer situation, to restore forests with genetically altered trees that grow faster and are more resistant to pollutants, and other kinds of repair jobs. Some of these efforts are admirable and indispensable today from the deep ecology standpoint.

The tendency to refrain from discussion of deep questions in the shallow movement has, as its main cause, the perceived irrelevance of such discussion: why bother? The supporters of the shallow movement believe that responsible ecological policies will be implemented in due course because of the clearly manageable magnitude of the implied problems.

When the use of pesticides was increasing by a very large percentage each year, only a few people were alarmed, and they soon found that strong forces were allied against the use of restraint. Even when the short-range undesirable consequences of pesticide use became clear, nothing decisive was done to change the situation.

Few people persistently asked why or how. Those who did, however, were deeply concerned about the ecological consequences. The answers to these questions relate not only to chemistry and biology; they involve increasingly more and more spheres of human affairs—economic, technological, social, cultural—and ultimately, philosophical and religious levels. That is, those who went deeper both *questioned more deeply* (in the sense of deeper premises) and *suggested deeper changes socially* (in a wide sense).

The percentage increase of the sheer volume of impact, and the increase of pernicious impact (of special chemicals, especially on vulnerable regional changes), could not, and cannot, be precisely measured. There is always room for differences in degrees of optimism and pessimism. The effects of DDT were uncertain; the causes and effects of acid rain are still uncertain; climatic changes (ice age or warming of the planet, or both, or none?) are uncertain. Some point out that population growth correlates with the growth of wealth if proper technology is available—look at the history of Holland! With high income and education, population stabilizes. The implication is that there is no cause for alarm.

With moderate degrees of optimism the why- and how-strings need not be long. Science and technology seem to furnish answers; also they do not touch fundamental social conditions, nor fundamental attitudes and value priorities.

The difference between the deep and the shallow ecological movements may be looked at from a special point of view, namely, what is questioned and how deep the questioning goes, although *defining* the movements in terms of deepness of questioning is misleading. The English term *questioning* is not as forceful as the Germanic and French equivalents: *prob-*

*lematizieren*, *Problematizierung*, *problematische*, etc. In European philosophy and politics during the late 1960s, these terms were important—the whole industrial society was questioned: *problematiziert*. The movement to protect nature was *politiziert* in the sense that it had to face the economic and political forces that mobilized against major protection efforts. Without political changes there would be no shift to ecologically sane policies. In the United States, terms like *vested interests* and *hidden persuaders* were used but did not gain much influence in questions of environmentalism. The profound *Problematizierung* of the sociologist C. Wright Mills (1967) came too early.

Looking at the relevant literature and public debates, my conclusion is (and has long been) that what characterizes the deep movement (in relation to the shallow) is not so much the *answers* that are given to “deep questions” but rather *that* “deep questions” are raised and taken seriously. Argumentation patterns within the shallow movement rarely touch the deeper questions: we do not find the complete social and philosophical *Problematizierung*. However, if supporters of the shallow movement are invited to answer the deeper questions, it is my experience that they often accept the points of view of the deep ecology movement. (A pilot study<sup>3</sup> in which influential people were invited to answer these kinds of questions confirms my impressions. More studies of this kind would be highly desirable.)

From this I conclude that the view is untenable that one is confronted, in the ecological crisis, with politicians and other influential people who invariably hold a different philosophy of life and a different view about humanity's place in the cosmic scheme, and who deliberately work against the realization of a green society (which implies respect for the richness and diversity of life on Earth). They often say, “Yes, sure. Every living being has intrinsic value, but what is your politically realistic proposal for solving the unemployment problem? Some forests may have to go.”

The last few years have seen a lively interest among religious leaders in denouncing the arrogance toward, and ruthless exploitation of, the planet. Christian leaders proclaim the intrinsic value of all beings because they are the creation of God, and speak about human sinful behavior toward God's creation. There is a central point, however, that this “new green wave” on the philosophical and religious level has not taken sufficiently seriously: *the necessity of a substantial change in economic, social, and ideological structures*. If

the first five points of the deep ecology platform are accepted, such changes are seen as necessary by most supporters of the deep ecology movement (cf. especially point 6).

Should we now say, then, that deeper questioning is no longer what fundamentally makes deep ecology argumentation patterns different from those of the shallow movement? The term *fundamentally* is too strong. I think *most clearly* is better.

I introduced the concept of pure why-strings to illustrate the simple concept of "deeper question," which was adapted to one of the many usages of the term *deep*. There is, however, another usage relevant to the choice of the designation "deep ecology movement": that of *deepness of change*. Whereas the shallow movement suggests increases in environmental budgets, forcing polluters to pay for their pollution, and many other changes in social policies, these proposed changes are not "deep." Green political party programs usually imply changes on the same deep level as those implied by the deep ecology movement.

As an example, let us consider the philosophical norm of universalizability as applied to ecological policies. Because all major ecological problems are global as well as local, one society degrading the Earth to a much greater extent per capita than other societies cannot be tolerated as long as the global volume of interference is clearly excessive. Norms of justice derivable from the Eight Points may convince people that ethically justifiable levels of interference in ecosystems require much deeper social changes than are now widely anticipated. Societies must adopt policies that can be universalized without reducing the richness and diversity of life on Earth.

It is of considerable importance that the deep ecology movement has so far faced no serious philosophically based criticism. Sooner or later that will occur, but of course it has to be legitimate criticism, not a caricature of the movement.

Jeremy Bentham was both a philosopher and a social reformer who was not afraid to derive very special particular norms from general principles; for example, which color would be best for ballot boxes. For every British custom and legal procedure he asked "Why so?" If a procedure did not satisfy his pleasure principle, it was to be abandoned. That is, he questioned (problematized) every procedure in the light of his total view, his special form of utilitarianism. Even if his way of doing this (through his "special"

why-strings) was fictitious to some degree (like the *q.e.d.*'s of Spinoza's "proofs"), his reform movement was highly successful.

The ecological crisis requires an analogous scrutiny of "everything" in the light of broad, global long-range ecological sustainability. Here, why- and how-strings must mercilessly confront procedures with basic principles on the philosophical and religious levels.

## The Deep Ecology Movement: Some Philosophical Aspects

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### Deep Ecology on the Defensive

Increasing pressures for growth have forced the vast majority of ecologists and other environmental professionals into a defensive position. Let me illustrate.

The field ecologist K, who both professionally and personally vigorously advocated deep ecological principles in the late 1960s, encountered considerable resistance. Colleagues at the university said that he should keep to his science and not meddle in philosophical and political matters, that he should resist the temptation to become a prominent “popularizer” through exposure in the mass media. Nevertheless, he continued and influenced thousands (including myself). He became a recognized “expert” in assessing the damage done when bears killed or maimed sheep or other domestic animals in Norway. According to the law, their owners are to be paid damages. Licensed hunters can get permission to shoot a bear if its misdeeds become considerable.<sup>1</sup> Growth pressures required consolidating the sheep industry, and sheep owners became fewer, richer, and more prone to live in towns. Because of wage increases, they could not afford to hire shepherds to watch their flocks, so the sheep were left alone in what were traditionally “bear territories.” In spite of this invasion, bear populations grew, and troubles multiplied.

What was K’s reaction? Did he set limits to human encroachments on

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bear territory? Did he directly apply his deep ecology perspective? Quite the contrary. He adopted a shallow wildlife management perspective that defended the sheep owners: more money in compensation for losses, quicker compensation, and immediate hiring of hunters to reduce the bear population. Other deep ecology supporters noted with concern his altered public "image"; had K really abandoned his former value priorities? Privately he insisted that he had not, but in public he was silent.

The reason for K's unexpected actions was not difficult to find: the force of economic growth was so strong that the laws protecting bears would be changed in a direction highly unfavorable to the bears if the sheep owners were not soon pacified by having some of their demands met. Moreover, some of their demands seemed reasonable. After all, it did cost a lot of money to hire and equip rescuers to locate a flock of sheep that had been harassed by a bear and, further, to prove the bear's guilt. In addition, the bureaucratic procedures involved were time-consuming. In short, K had not changed his basic value priorities at all. Rather, he had adopted a purely defensive compromise. He stopped promoting his deep ecology philosophy in public to retain credibility and standing among opponents of his principles.

What is true of K is true of thousands more. These people often hold responsible positions from which they might strengthen responsible environmental policy. Given the exponential forces of growth, however, their publications are limited to narrowly professional and specialized concerns. Their writings are surely competent but lack a deeper, more comprehensive perspective (although I admit that there are some brilliant exceptions). If professional ecologists persist in voicing their value priorities, their jobs are often imperiled, or they tend to lose influence and status among those who are in charge of general policies. Privately, they may admit the necessity for deep and far-reaching changes, but they remain silent in public. As a result, their positive impact on the public has largely vanished. Deeply concerned people feel abandoned by the "experts."

In ecological debate many participants know a great deal about particular conservation policies in particular places, and many others have strong opinions regarding fundamental philosophical questions of environmental ethics, but only a few have both qualities. When they are silent, the loss is formidable.



Let me illustrate again. A family of four decides to acquire four chairs for a small room, newly added to the home. They buy the chairs and all have peace of mind. Then one of them gets an urge to put ten more chairs in the room. Two of the family members who are technically talented and eager to satisfy any “need” use their time to solve the sophisticated physical and mathematical problems involved. When they ask the fourth member to work overtime to get the money to purchase the ten chairs, she answers that the chairs are unnecessary for a life rich in intrinsic values and simple in means. She begins to argue for her view, but the two technocrats insist that first she should work through all the alternative solutions to the Ten Chair problem. At last, she wonderfully simplifies the argument. If the ten chairs are not a desired end, it is pointless to discuss the means by which this might be achieved. The technically talented find other outlets for their surplus energy, for there are always enough legitimate problems to work on.

The complicated question of how industrial societies can increase energy production with the least undesirable consequences is of the same kind: a waste of time if the increase is pointless in relation to ultimate ends. When thousands of experts hired by government and other big institutions devote their time to this complicated problem, it is difficult for the public to learn that many of them judge the problem pointless and irrelevant. What is relevant, according to them, are the problems of how to stabilize and eventually decrease consumption without loss of life quality.

### **A Call to Speak Out**

What I advocate and argue for is this: even those who completely subsume ecological policies under the narrow ends of human health and well-being cannot attain their more modest aims, at least not fully and easily, without being joined by supporters of deep ecology. They need what these people have to contribute, as this alliance will work for them more often than it works against them. Those in charge of environmental policies, even if they are resource-oriented (and growth-tolerating?) decision makers, will increasingly welcome what deep ecology supporters have to say, if only for

tactical and not fundamental reasons. Even though the more radical ethic may seem nonsensical or untenable to them, they know that its advocates are doing in practice conservation work that sooner or later must be done. They concur with the practice, although they operate from diverging theories. If I am right, the time is ripe for professional followers of deep ecology to break their silence and freely express their deepest concerns. A bolder advocacy of deep ecology by those who are working within the shallow, resource-oriented "environmental" sphere is the best strategy for reestablishing some of the strength of this movement among the general public and thereby contributing, however modestly, to a turning of the tide.

What do I mean by saying that even the more modest aims of shallow environmentalism have a need for deep ecology? We can see this by considering the *World Conservation Strategy* prepared by the International Union for Conservation of Nature and Natural Resources (IUCN) with the advice, cooperation, and financial assistance of the United Nations Environmental Program (UNEP) and the World Wildlife Fund (WWF). The argument in this important publication is through and through anthropocentric in the sense that all its recommendations are justified in terms of their effects on human health and well-being. Even the recommended environmental ethic, with its attendant environmental education campaign, has human beings in harmony with nature for human good. "A new ethic, embracing plants and animals as well as people, is required for human societies to live in harmony with the natural world on which they depend for survival and well-being" (IUCN 1980: sec. 13). Such an ethic would surely be more effective if it were acted upon by people who believe in its validity, rather than by those who merely believe in its usefulness. This, I think, will come to be understood more and more by those in charge of educational policies. Quite simply, it is indecent for a teacher to proclaim an ethic only for tactical reasons. Further, this point applies to all aspects of world conservation strategy. Conservation strategy will be more eagerly implemented by people who love what they are conserving, and who are convinced that what they love is intrinsically lovable. Such lovers will not want to hide their attitudes and values, but rather will increasingly give voice to them in public. They have a genuine ethics of conservation, not merely a tactically useful instrument for social and political ends.

In short, environmental education campaigns can fortunately combine anthropocentric arguments with a practical land and sea ethic based on a deeper and more fundamental naturalistic philosophical or religious perspective, and on a set of norms resting on intrinsic values. The inherent strength of this overall position will be lost, however, if those who work professionally on environmental problems do not give public testimony to these fundamental norms.

This article is hortatory, in the positive etymological sense of that word. I seek “to urge, incite, instigate, encourage, cheer” (Latin: *hortari*). This may seem unacademic in a philosophical journal, but I consider it justifiable because of an intimate relationship between hortatory sentences and basic philosophical views, which I will formulate below.

### What Is Deep Ecology?

So far, I have used the term *deep ecology movement* without trying to define it. One should not expect much from definitions of movements—think of terms such as *conservatism*, *liberalism*, and *feminism*. Moreover, it is not necessary that supporters adhere to exactly the same definition. In what follows, a set of principles, or key terms and phrases, agreed upon by George Sessions and myself, are tentatively proposed as basic to deep ecology.<sup>2</sup> The list is followed by comments on each of the eight principles.

1. The well-being and flourishing of human and nonhuman life on Earth have value in themselves (synonyms: intrinsic value, inherent value). These values are independent of the usefulness of the non-human world for human purposes.
2. Richness and diversity of life-forms contribute to the relation of these values and are also values in themselves.
3. Human beings have no right to reduce this richness and diversity except to satisfy vital needs.
4. The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of non-human life requires such a decrease.
5. Current human interference with the nonhuman world is excessive, and the situation is rapidly worsening.

6. Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present state of affairs.
7. The ideological change is mainly that of appreciating life quality (dwelling in situations of inherent value) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.
8. Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement the necessary changes. It is this principle that highlights the importance of *deep questioning* as the process by which to follow/develop/enact the other principles.

#### *Basic Principle 1*

Formulation 1 refers to the biosphere or, more accurately, to the eco-sphere as a whole. This includes individuals, species, populations, and habitats, as well as human and nonhuman cultures. From our current knowledge of all-pervasive intimate relationships, this implies a fundamental deep concern and respect. Ecological processes on the planet should, on the whole, remain intact. "The world environment should remain 'natural'" (Gary Snyder).

The term *life* is used here in a comprehensive, nontechnical way to refer also to what biologists classify as "nonliving": rivers (watersheds), landscapes, ecosystems. For supporters of deep ecology, slogans such as "Let the river live" illustrate this broader usage so common in most cultures.

Inherent value, as used in formulation 1, is common in deep ecology literature. "The presence of inherent value in a natural object is independent of any awareness, interest, or appreciation of it by any conscious being" (Regan 1981: 30).

#### *Basic Principle 2*

More technically, formulation 2 concerns diversity and complexity. From an ecological standpoint, complexity and symbiosis are conditions for maximizing diversity. So-called simple, lower, or primitive species of plants and animals contribute essentially to richness and diversity of life.

They have value in themselves and are not merely steps toward the so-called higher or rational life-forms. The second principle presupposes that life itself, as a process over evolutionary time, implies an increase of diversity and richness. The refusal to acknowledge that some life-forms have greater or lesser intrinsic value than others (see points 1 and 2) runs counter to the formulations of some ecological philosophers and New Age writers.

Complexity, as referred to here, is different from complication. Urban life may be more complicated than life in a natural setting without being more complex in the sense of multifaceted quality.

#### ***Basic Principle 3***

The term *vital need* is left deliberately vague in formulation 3 to allow for considerable latitude in judgment. Differences in climate and related factors, together with differences in the structures of societies as they now exist, need to be considered. (For some Eskimos, snowmobiles are necessary today to satisfy vital needs; the same cannot be said for tourists.)

#### ***Basic Principle 4***

People in the materially richest countries cannot be expected to reduce their excessive interference with the nonhuman world to a moderate level overnight. The stabilization and reduction of the human population will take time. Interim strategies need to be developed. In no way, however, does this excuse the current complacency. The extreme seriousness of our situation must first be realized, and the longer we wait the more drastic will be the measures needed. Until deep changes are made, substantial decreases in richness and diversity are liable to occur: the rate of extinction of species will be ten to one hundred times greater than at any other period in Earth's history.

#### ***Basic Principle 5***

Formulation 5 is mild. For a realistic assessment of the situation, see the unabridged version of the IUCN's *World Conservation Strategy*. There are

other works to be highly recommended, such as Gerald Barney's *Global 2000 Report to the President of the United States*.

The slogan of "noninterference" does not imply that human beings should not modify some ecosystems as do other species. Human beings have modified the earth and will probably continue to do so. At issue is the nature and extent of such interference.

The fight to preserve and extend areas of wilderness or near-wilderness should continue and should focus on the general ecological functions of these areas. One such function is that large wilderness areas are required in the biosphere to allow for continued evolutionary speciation of animals and plants. Most currently designated wilderness areas and game preserves are not large enough to allow for such speciation.

### *Basic Principle 6*

Economic growth as conceived and implemented today by the industrial states is incompatible with principles 1–5. There is only a faint resemblance between ideal sustainable forms of economic growth and current policies of the industrial societies. Moreover, "sustainable" still means "sustainable in relation to people."

Present-day ideology tends to value things because they are scarce and because they have a commodity value. There is prestige in vast consumption and waste (to mention only several relevant factors).

Whereas "self-determination," "local community," and "think globally, act locally" will remain key terms in the ecology of human societies, nevertheless the implementation of deep changes requires increasingly global action, action across borders.

Governments in Third World countries are mostly uninterested in deep ecological issues. When the governments of industrial societies try to promote ecological measures through Third World governments, practically nothing is accomplished (for example, with problems of desertification). Given this situation, support for global action through nongovernmental international organizations becomes increasingly important. Many of these organizations are able to act globally "from grass roots to grass roots," thus avoiding negative governmental interference.

Cultural diversity today requires advanced technology, that is, techniques that advance the basic goals of each culture. So-called soft, intermediate, and alternative technologies are steps in this direction.

#### ***Basic Principle 7***

Some economists criticize the term *quality of life* because, they say, it is vague. On closer inspection, however, what they consider to be vagueness is actually the nonquantitative nature of the term. One cannot quantify adequately what is important for quality of life as discussed here, and there is no need to do so.

#### ***Basic Principle 8***

There is ample room for different opinions about *priorities*: what should be done first, what next; what is most urgent; what is clearly necessary as opposed to highly desirable but not absolutely pressing.

Although many supporters of the deep ecology movement may find the above formulations useful, others will certainly feel that they are imperfect, even misleading. If they need to formulate in a few words what is basic in deep ecology, they will propose an alternative set of sentences. I shall, of course, be glad to refer to those formulations as alternatives. There ought to be a measure of diversity in what is considered basic and common.

Should we call the movement the deep ecology movement?<sup>3</sup> There are at least six other designations that cover most of the same issues: "Ecological Resistance," used by John Rodman in important discussions; "The New Natural Philosophy," coined by Joseph Meeker; "Eco-philosophy," used by Sigmund Kvaloy and others to emphasize (1) a highly critical assessment of industrial growth societies from a general ecological point of view and (2) the ecology of the human species; "Green Philosophy and Politics" (although the term *green* is often used in Europe, in the United States it has a misleading association with the rather "blue" Green Revolution); "Sustainable Earth Ethics," as used by G. Tyler Miller; and "Ecos-

ophy," eco-wisdom, which is my own favorite term. Others could also be mentioned.

Why use the adjective *deep*? This question will be easier to answer after the contrast is made between shallow and deep ecological concerns.

What I am talking about is not a philosophy in any academic sense, nor is it institutionalized as a religion or an ideology. Various persons come together in campaigns and direct actions. They form a circle of friends supporting the same kind of lifestyle, which others term "simple" but they themselves think is rich and many-sided. They agree on a vast array of political issues, although they may otherwise support different political parties. As in all social movements, slogans and rhetoric are indispensable for ingroup coherence. They react together against the same threats in a predominantly nonviolent way. Perhaps the most influential participants are artists and writers who do not articulate their insights in terms of professional philosophy, but do express themselves in art or poetry. For these reasons, I use the term *movement* rather than *philosophy*.

### Deep Versus Shallow Ecology

A number of key terms and slogans from the environmental debate will clarify the contrast between the shallow and the deep ecology movements.

#### *Pollution*

*Shallow approach:* Technology seeks to purify the air and water and to spread pollution more evenly. Laws limit permissible pollution. Polluting industries are preferably exported to developing countries.

*Deep approach:* Pollution is evaluated from a biospheric point of view,<sup>4</sup> not centering on its effects on human health, but on life as a whole, including life conditions of every species and system. The shallow reaction to acid rain is to avoid action by demands for more research, demands to find species of trees tolerating high acidity, and so on, whereas the deep approach concentrates on what is going on in the total ecosystem and asks for a high-priority fight against the economy and technology responsible for acid rain.

The priority is to fight deep causes of pollution, not merely the super-



ficial, short-range effects. The Third and Fourth worlds cannot afford to pay the total cost of the war against pollution in their regions, and consequently they require the assistance of the First and Second worlds. Exporting pollution is not only a crime against humanity, but also against life.

### **Resources**

*Shallow approach:* The emphasis is on resources for human beings, especially the present generation in affluent societies. In this view, the Earth's resources belong to those who have the technology to exploit them. There is confidence that resources will not be depleted because, as they get rarer, a high market price will conserve them, and substitutes will be found through technological progress. Further, animals, plants, and natural objects are valuable only as resources for human beings. If no human use is known, they can be destroyed with indifference.

*Deep approach:* The concern here is with resources and habitat for all life-forms for their own sake. No natural object is conceived of solely as a resource. This then leads to a critical evaluation of human modes of production and consumption. One must ask, To what extent does an increase here favor ultimate values in human life? To what extent does it satisfy vital needs, locally and globally? How can economic, legal, and educational institutions be changed to counteract destructive increases? How can resource use serve the quality of life rather than the economic standard of living as generally promoted in consumerism? There is an emphasis here on an *ecosystem approach* rather than just the consideration of isolated life-forms or local situations. There is a long-range maximal perspective of time and place.

### **Population**

*Shallow approach:* The threat of (human) overpopulation is seen mainly as a problem for developing countries. One condones or even cheers population increases in one's own country for shortsighted economic, military, or other reasons; an increase in the number of human beings is considered a value in itself or as economically profitable. The issue of optimum population for humankind is discussed without reference to the question of the

optimum population of other life-forms. The destruction of wild habitats caused by an increasing human population is accepted as an inevitable evil. Drastic decreases of wild life-forms tend to be accepted as long as species are not driven to extinction. Animal social relations are ignored. The long-term substantial reduction of the global human population is not seen as a desired goal. One has a right to defend one's own borders against "illegal aliens," no matter what the population pressures elsewhere.

*Deep approach:* It is recognized that excessive pressures on planetary life conditions stem from the human population explosion. The pressure stemming from industrial societies is a major factor, and population reduction must have a high priority in those societies, as well as in developing countries. Estimates of an optimal human population vary. Some quantitative estimates are 100 million, 500 million, and 1,000 million, but it is recognized that there must be a long-range human-population reduction through mild but tenacious political and economic measures. This will make possible, as a result of increased habitat, population growth for thousands of species that are now constrained by human pressures.

### *Cultural Diversity and Appropriate Technology*

*Shallow approach:* Industrialization of the kind manifested in the West is held to be the goal for developing countries. The universal adoption of Western technology is compatible with mild cultural diversity and the conservation of good (from the Western point of view) elements in present-day nonindustrial societies. There is a low estimate of deep cultural differences that deviate significantly from Western standards.

*Deep approach:* Cultural diversity is an analogue on the human level to the biological richness and diversity of life-forms. We should give high priority to cultural anthropology in education in industrial societies. We should limit the impact of Western technology on nonindustrial countries and defend the Fourth World against foreign domination. Political and economic policies should favor subcultures within industrialized societies. Local, soft technologies will allow a basic cultural assessment of any technical innovations. The deep approach freely criticizes so-called advanced technology and concepts of "progress."

### *Land and Sea Ethics*

*Shallow approach:* Landscapes, ecosystems, rivers, and other wholes of nature are cut into fragments; larger units and gestalts are disregarded. These fragments are regarded as the property and resources of individuals, organizations, or states. Conservation is argued in terms of “multiple use” and “cost-benefit analysis.” Social costs and long-term ecological costs are not included. Wildlife management conserves nature for “future generations of human beings.” The erosion of soils or of groundwater quality is noted as a human loss, but a strong belief in future technological progress makes deep changes seem unnecessary.

*Deep approach:* Earth does not belong to human beings. The Norwegian landscapes, rivers, fauna and flora, and the surrounding sea are not the property of Norwegians. Human beings only inhabit the land, using resources to satisfy vital needs. If their nonvital needs conflict with the vital needs of nonhuman life-forms, human beings might yield. The destruction now going on will not be cured by a technological fix. Current arrogant notions in industrial (and other) societies must be resisted.

### *Education and Scientific Enterprise*

*Shallow approach:* The degradation of the environment and resource depletion necessitate the further training of experts who can advise on how to combine economic growth with the maintenance of a healthy environment. We are likely to need highly manipulative technology when global economic growth makes further degradation inevitable. The scientific enterprise must continue giving priority to the “hard” sciences. This necessitates high educational standards with intense competition in relevant “tough” areas of learning.

*Deep approach:* Education should concentrate on increased sensitivity to nonconsumptive goods and on such consumables as we have enough of for all, provided sane ecological policies are adopted. Education will therefore counteract the excessive valuation of things with a price tag. There should be a shift in emphasis from “hard” to “soft” sciences, especially those that stress local culture and global cooperation. The educational ob-

jective of the *World Conservation Strategy*, “building support for conservation,” should be accorded priority within the deeper framework of respect for the biosphere.

In the future, there will be no shallow movement, if shallow policies are increasingly adopted by governments and, thus, need no support from a special social movement.

### Why a “Deep” Ecology?

The decisive difference between a shallow and a deep ecology movement hinges on the willingness to question, and to appreciate the importance of questioning, every economic and political policy in public. The questioning is “deep” and public. It asks *why* more insistently and consistently, taking nothing for granted. Deep ecology can readily admit the practical effectiveness of anthropocentric arguments. “It is essential for conservation to be seen as central to human interests and aspirations. At the same time, people—from heads of state to the members of rural communities—will most readily be brought to demand conservation if they themselves recognize the contribution of conservation to the achievement of their needs, as perceived by them, and the solution of their problems, as perceived by them” (IUCN 1980: sec. 13). Since most policies serving the biosphere also serve humanity in the long run, they may, at least initially, be accepted on the basis of narrow “anthropocentric” arguments.

Nevertheless, such a tactical approach has significant limitations. There are three dangers. First, some policies based on successful anthropocentric arguments turn out to violate or compromise unduly the objectives of deeper argumentation. Second, the strong motivation to fight for decisive change and the willingness to serve a great cause are weakened; and, third, the complicated arguments in human-centered conservation documents such as the *World Conservation Strategy* go beyond the time and ability of many people to assimilate and understand and also tend to provoke interminable technical disagreements among experts. Special-interest groups with narrow, short-term exploitative objectives that run counter to saner ecopolicies often exploit these disagreements and thereby

stall the debate and steps toward effective action. When arguing from deep ecological premises, one need not discuss at all most of the complicated proposed technological fixes. The relative merits of alternative-technology proposals in industrial societies concerned with how to increase energy production are pointless if our vital needs have already been met. The focus on vital issues activates mental energy and strengthens motivation. The shallow environmental approach, on the other hand, tends to make the human population more passive and less interested in environmental issues.

The deep ecology movement tries to clarify the fundamental presuppositions underlying our economic approach in terms of value priorities, philosophy, and religion. In the shallow movement, argument comes to a halt long before this. The deep ecology movement is therefore "the ecology movement that questions deeper."

The terms *egalitarianism*, *homocentrism*, *anthropocentrism*, and *human chauvinism* are often used to characterize points of view on the shallow-deep ecology spectrum. These terms, though, usually function as slogans that are open to misinterpretation. They can imply that human beings are in some respects only "plain citizens" (Aldo Leopold) of the planet on a par with all other species, but they are sometimes interpreted as denying that human beings have any "extraordinary" traits, or that in situations involving vital interests, human beings have no overriding obligations toward their own kind. They have!

In any social movement, rhetoric has an essential function of keeping members fighting together under the same banner. Rhetorical formulations also serve to provoke interest among outsiders. Of the better-known slogans, one might mention "Nature knows best," "Small is beautiful," and "All things hang together." Clearly, all things in the universe do not hang together at the level of quantum physics or relativity theory: the slogan only expresses a doctrine of global, not cosmic, relevance.

Only a minority of deep ecology supporters are academic philosophers such as I. Although deep ecology is not a finished philosophical system, this does not mean that movement philosophers should not try to be as clear as possible. So a discussion of deep ecology as a derivational system may be of value.

### Deep Ecology Illustrated as a Derivational System

Underlying the eight tenets or principles above are still more basic positions and norms, which reside in philosophical systems and various world religions. Schematically, we may represent the total views implied in the movement by streams of derivation from the most fundamental norms and descriptive assumptions to particular decisions in actual life situations (see figure 2, chapter 9).

This pyramidal model has some features in common with hypothetico-deductive systems. The main difference, however, is that some sentences at the top (deepest) level are normative, and are preferably expressed by imperatives. This makes it possible to arrive at imperatives at the lowest derivational level, the crucial level in terms of decisions. Thus, there are *oughts* in our premises, as well as in our conclusions. We do not move from an *is* to an *ought*.

Just as in a hypothetico-deductive system in physics, where only the two upper levels of the pyramid are thought of as forming physics as a system, so also in normative systems only the upper levels are considered to be part of the total system. The sentences in the lowest part are changing from day to day as life situations change.

This derivational structure of a total view must not be taken too seriously. It is not meant in any restrictive way to characterize creative thinking within the deep ecology movement. That thinking moves freely in any direction. Nevertheless, some of us with professional backgrounds in science and analytical philosophy find it helpful.<sup>5</sup>

Answers to ultimate questions—that is, the highest normative principles and basic assumptions about the world—occur in the upper part of the derivational pyramid. The first three basic principles of deep ecology (as outlined above) belong to the upper level of the pyramid because they assert, in a general way, that life in its diversity is a value in itself and thus forms a norm against undue human interference. The next four (4–7) tenets belong to the middle region because they are more local; their purview is what is going on at present. They include factual claims and projections about the consequences of current policies in industrial and nonindustrial countries. An application of the last tenet (8) is at the lowest derivational level because it imposes an obligation to take part in actions to change poli-

cies. Such an obligation must be derivable from principles higher up in the pyramid.

There are a few propositions at the top of the pyramid, a great variety at the middle level, and innumerable recommendations at the bottom.

### **Multiple Roots of the Deep Ecology Principles**

The deep ecology movement seriously questions the presuppositions of shallow argumentation. Even what counts as a rational decision is challenged, because “rational” is always defined in relation to specific aims and goals. If a decision is rational in relation to the lower-level aims and goals of our pyramid but not in relation to the highest level, then the decision should not be judged to be rational. If an environmentally oriented policy decision is not linked to intrinsic values, its rationality is yet undetermined. The deep movement connects rationality with a set of philosophical and religious foundations. One cannot expect the ultimate premises to constitute rational conclusions. There are no “deeper” premises available.

The deep ecological questioning reveals the fundamental normative orientations. Shallow argumentation stops before reaching fundamentals or jumps from the ultimate to the particular, that is, from level 1 to level 4.

It is not only normative claims that are at stake. Most (perhaps all) norms presuppose ideas about how the world functions. Typically, the vast majority of propositions needed in normative systems are descriptive. This holds of all levels.

Notice, however, that it does not follow that supporters of deep ecology must have, on ultimate issues, identical beliefs. They do have common attitudes about intrinsic values in nature, but these can, in turn (at a still deeper level), be derived from different, mutually incompatible sets of ultimate beliefs.

Thus, while a specific decision may be judged as rational from within the derivational system (if there is such) of shallow ecology, it might be judged irrational from within the derivational system of deep ecology. What is rational within the deep ecology derivational pyramid does not require unanimity in ontology and fundamental ethics. Deep ecology sup-

#### THE LONG-RANGE DEEP ECOLOGY MOVEMENT

port as a conviction, with its subsequently derived practical recommendations, can follow from several more comprehensive worldviews. Deep ecology is a grassroots movement, not a worldview.

Those engaged in the deep movement have so far revealed their philosophical or religious homes mainly to be in Christianity, Buddhism, Taoism, or a personal philosophy. The top level of the derivational pyramid can therefore be made up of normative and descriptive principles that belong to forms of Christianity, Buddhism, Taoism, and various philosophical creeds.

Since the late 1970s, numerous Christians in Europe and America, some of them teachers of theology, have actively participated in the deep ecology movement. Their interpretations of the Bible and their theological positions in general have been reformed from what was, until recently, a crudely anthropocentric emphasis within Christianity.

There is an intimate relation between some forms of Buddhism and the deep ecology movement. The history of Buddhist thought and practice, especially the principles of nonviolence, noninjury, and reverence for life, sometimes makes it easier for Buddhists to understand and appreciate that movement than it is for Christians, despite a (sometimes overlooked) blessedness that Jesus recommended in peacemaking. I mention Taoism chiefly because there is some basis for calling John Muir a Taoist.<sup>6</sup>

Ecosophies are not religions in the classical sense, but general philosophies inspired by ecology. In the next section I will introduce Ecosophy T.

The adherents of different religions and philosophies disagree and may not even ultimately understand each other at the foundational levels of conviction and experience. Nevertheless, they can have important derived views in common, and these, though themselves derived, are nevertheless deep enough to form what I wish to call the upper level of the deep ecology derivational pyramid.

Some have worried that the mixture of religion and environmentalism could prove a source of dogmatism, intolerance, and "mysticism" (in the sense of obscurantism). So far, there is no evidence that this is happening. Nature mysticism has little to do with obscurantism.<sup>7</sup>



## Ecosophy T

The main theoretical complaint against the shallow ecology movement is not that it is based on a well-articulated but incorrect philosophical or religious foundation. It is, rather, that there is a lack of depth—or complete absence—of guiding philosophical or religious foundations.

In his excellent book on how to “live in the environment,” G. Tyler Miller (1983: 489) writes:

The American attitude (and presumably that of most industrialized nations) toward nature can be expressed as eight basic beliefs [four of which are reproduced here].

1. Humans are the source of all value.
2. Nature exists only for our use.
3. Our primary purpose is to produce and consume. Success is based on material wealth.
4. Production and consumption must rise endlessly because we have a right to an ever increasing material level of living.

Miller adds an important reservation:

Although most of us probably would not accept all of these statements, we act individually, corporately, and governmentally as if we did—and this is what counts.

When they are so badly exposed, we might find that few people would explicitly subscribe to what Miller characterizes as “the American attitude.” Nevertheless, as Miller notes, most modern people (and not only Americans!) behave as if they believed such a creed. There is no articulated philosophical or religious view from which “the American attitude” is carefully justified.

The shallow movement has not offered examples of total views comprising the four levels in our illustration. I am tempted to say that there will be no examples. Serious attempts to find a deep justification for the way life on the planet is treated today (including the threats of using nuclear “weapons”) are doomed to failure. What I say is meant as a challenge: is there a philosopher somewhere who would like to try?

My main purpose in announcing that I feel at home in "Ecosophy T" is didactic and dialectic. I hope to get others to announce their philosophy. If they say they have none, I maintain that they have but perhaps do not know their own views, or are too modest or inhibited to proclaim what they believe. Following Socrates, I want to provoke questioning until others know where they stand on basic matters of life and death. This is done by using ecological issues, and also by using Ecosophy T as a foil. Socrates, though, pretended in debate that he knew nothing. My posture seems to be the opposite. I may seem to know everything and to derive it magically from a small set of hypotheses about the world. Both interpretations are misleading! Socrates did not consistently claim to know nothing, nor do I in my Ecosophy T pretend to have all that comprehensive a knowledge. He claimed to know, for example, about the fallibility of human beings' claims to know.

So, here is Ecosophy T (see figure 1):

Its fundamental norm is "Self-realization!" I do not, however, use this expression in any narrow, individualistic sense. I want to give it an expanded meaning based on the distinction between Self and self as conceived in certain Eastern traditions of *ātman*, comprising all the life-forms, and selves (*jīvas*) as usually interpreted in social and personal life.<sup>8</sup> I use only five words: *maximum (long-range, universal) Self-realization!* If I had to give up the term fearing its inevitable misunderstanding, I would use the term *symbiosis*. "Maximize Self-realization!" could be interpreted in the direction of colossal ego trips, but "Maximize symbiosis!" could be interpreted in the opposite direction, that of the elimination of individuality in favor of collectivity.

Viewed systematically, not individually, maximum Self-realization implies maximizing the manifestations of life. So I next derive the second term, "*Maximize (long-range, universal) diversity!*" A corollary is that the higher the levels of Self-realization attained by a person, the more any further increase depends upon the Self-realization of others. Increased self-identification is increased identification with others. "Altruism" is a natural consequence of this identification.

This leads to a hypothesis about an inescapable increase of identification with other beings when one's own self-realization increases. We increasingly see ourselves in others, and others in ourselves. This self is ex-

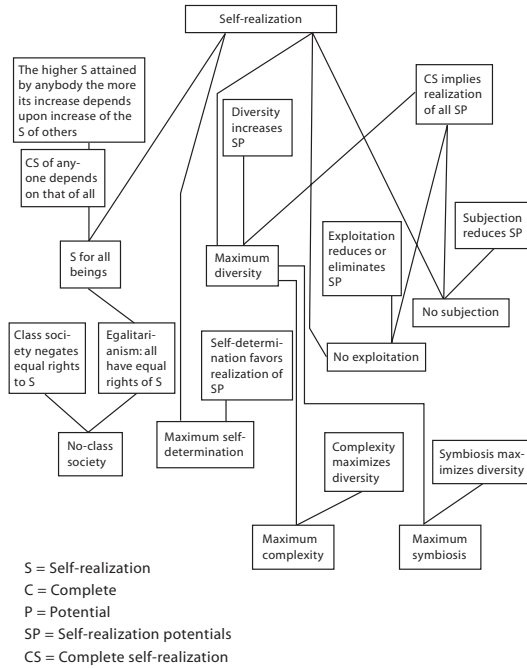


Figure 1. Ecosophy T

tended and deepened as a natural process of the realization of its potentialities in others.

Universalizing, we can derive the norm “Self-realization for every being!” From “Diversity!” and a hypothesis that maximum diversity implies a maximum of symbiosis is derived the norm “Maximum symbiosis!” Further, we work for life conditions such that there is a minimum of coercion in the life of others. And so on!<sup>9</sup>

A philosophy as a worldview inevitably has implications in practical situations. Therefore, Ecosophy T moves on without apology to concrete questions of lifestyle. These will obviously show great variation because of differences in *hypotheses* about the world in which each of us lives and in the “factual” statements about the concrete situations in which we make decisions. I shall limit myself to a couple of areas in which my “style” of thinking and behaving seems somewhat strange to friends and others who know a little about my philosophy. First, I exhibit a somewhat extreme appreciation of diversity: a positive appreciation of the existence of styles and behaviors that I personally detest or find nonsensical (but not clearly incompatible with symbiosis); enthusiasm for “the mere” diversity of species or varieties within a genus of plants or animals; support, as the head of a department of philosophy, of doctoral theses completely at odds with my own inclinations, with only the requirement that the authors are able to understand fairly adequately some basic features of the kind of philosophy I myself feel at home with; and a combination of *seemingly* incompatible interests and behaviors, which makes for an increase of subcultures within industrial states and might to some extent help future cultural diversity. So much about “Diversity!”

Second, I have a somewhat extreme appreciation of what Kant calls beautiful actions (good actions based on inclination), in contrast to dutiful ones. The choice of the formulation “Self-realization!” is in part motivated by the belief that maturity in human beings can be measured along a scale from selfishness to a broadening and deepening of the self, rather than measures of dutiful altruism. I see joyful sharing and caring as a natural process (which, I regret, is somewhat retarded in myself).

Third, I believe that many-sided, high-level Self-realization is more easily reached through a “spartan” lifestyle than through the material standard of average citizens of industrial states.

The simple formulations of the deep ecology platform and Ecosophy T are not meant primarily to be used among philosophers, but in dialogues with “the experts.” When I wrote to them personally, asking whether they accept the eight points of the platform, many answered positively in relation to most or all the points—even top people in ministries of oil and energy! It is, however, still an open question to what extent they

are willing to let their written answers be widely published. It is also an open question to what extent they try to influence their colleagues who use only shallow argumentation. The main conclusion is moderately encouraging: there is a philosophy of the human/nature relationship widely accepted among established experts responsible for environmental decisions, and this philosophy requires a pervasive, substantial change of current policies—in favor of our “living” planet, and not only for short-sighted human interests.

## The Deep Ecology “Eight Points” Revisited

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Ten years ago it was fairly common to express astonishment that people with very different philosophical and religious backgrounds could be supporters of the deep ecology movement. What did they have in common? Or, how could they have anything in common? How would they define what deep ecology really is?

The first question seemed to me the most important. It was important to emphasize that supporters of the deep ecology movement need not hold basic philosophical or religious premises in common. They should have, and use, such premises, but the premises would not all be of the same kind because of cultural differences. The deeper the differences, the better, because of the value of deep differences in cultural backgrounds.

At that time (in the early 1980s) it was important to point to views held in common. There were at least two ways in which things were clearly held in common: personal sorrow or despair was felt when environmental battles ended in defeat, and there was a corresponding feeling of joy when at least a partial victory was achieved. There was also a high degree of agreement about the need for, and acceptance of, “direct actions” of some sort, and (what to me was a great thing) a clear consciousness about the limitations of the means to be used: nonviolence. Typically, supporters had been active in the peace movement before becoming environmental activists. Reference to nonviolence should perhaps be included in the Eight Points.

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Less clearly, the supporters had some *fairly general and abstract* views in common, or nearly in common. What the critics and doubters needed was a not too complex and detailed survey of such views, which should be put forth tentatively. The formulation of the Eight Points was the result. That these short points were called principles, or expressions of a "platform," was perhaps unfortunate. A longer name for the Eight Points is indispensable, for example: "a set of fairly general and abstract statements that seem to be accepted by nearly all supporters of the deep ecology movement."

The term *seem* is included because what is meant is not only acceptance of the Eight Points as an articulate answer to a question, but acceptance in a wider, somewhat vague sense, as in a sentence such as "Mr. A accepted Mr. B's leadership," or "In the ashram they accepted the situation that snakes and scorpions were permitted to stay in their sleeping quarters during the night." The chance might be that an ashram member, if asked, would object to allowing certain snakes to come into the room, but so far there have been no such members. It has been encouraging how people say, "Yes, of course I accept those Eight Points, but so far I have not had the words to express my attitudes." What the Eight Points have offered is mainly putting words to views that people have "always" had but have not expressed, at least not in public.

The reception of the set of eight formulations by supporters has been encouraging: from this I conclude that there is a broad similarity of views on the fairly general and abstract level. A further conclusion: the usefulness of the Eight Points as a convenient reference point suggests that alternative analogous sets should be developed. It is unnatural that only one formulation could be convenient.

The Eight Points are, of course, not intended to function as a definition of the deep ecology movement: neither as a rule-given definition of the term, nor as a plain description of how the expression "deep ecology movement" is actually used, nor as an expression of the essence of the deep ecology movement. I do not know of any satisfactory definitions at the dictionary level. For example, I do not think a dictionary entry like the following is very helpful: "deep ecology movement: a movement within environmentalism that is activist, ecocentric rather than anthropocentric, and based on nonviolent philosophical or religious views."

Looking back, I am glad to have the opportunity to make some comments about the Eight Point list, not all of which are critical:

1. It has been suggested that the Eight Points should include reference to the "all things hang together" theme. The best way of including this seems to me to be the formulation of Fritjof Capra. He suggests the following alternative formulation of point 2: "The fundamental interdependence, richness, and diversity contribute to the flourishing of human and nonhuman life on Earth."

This alternative formulation is important to me mainly because the three factors mentioned are presented as instrumental, not as values in themselves. Such a presentation does not, of course, rule out the inherent value of richness and diversity, but I have thought that inherent value must be declared explicitly in the formulation of that point. Why "must"? Conclusion: the suggestion by Capra adds to *the set of alternative formulations* of the Eight Points. (I myself have not found it possible to stick to only one way of formulating the points.)

Of course, to "hang together" as a kind of interdependence may be taken by some as a kind of threat. One hears such warnings: Remember that human beings are *unfortunately* dependent upon the health of the ecosystems. *Therefore* respect nature or you invite disaster!

In short, I have so far not found sufficient reason to include in the Eight Points a reference to the "all things hang together" theme. It should not be necessary to add that "nature mysticism" (the ultimate unity of all living beings) and similar level-1 views have no place among views that supporters may have *in common*. Views about, and feelings of, the intimacy and "hanging together" of everything may, of course, differ in terms of degree of tightness. The interdependence referred to in the alternative formulation is of the kind that supporters do, in fact, talk about.<sup>1</sup>

I find it regrettable, however, that J. Baird Callicott, a supporter of the deep ecology movement as far as I can understand, believes that some kind of nature mysticism is *implied* in being a deep ecology supporter. Callicott (1993: 330) writes that "indeed [deep ecologists] argue that ecology teaches us that the whole of nature is the true Self." This is a strange formulation. Supporters of the movement have total views inspired in part by reactions to the ecological crisis. Such total views I have called ecosophies—I call my own Ecosophy T. Fortunately, other supporters have different ecosophies.



(One thing we have in common is that the articulation of our views is, and must be, fragmentary.) In the premise-conclusion systematization of Ecosophy T, "Self-Realization!" is designated as the one ultimate premise. Some feel at home with this, others do not. The Eight Points could not possibly contain that norm.

I do not feel bad when Professor Callicott mistakenly seems to identify my opinions with those of Mahatma Gandhi. He quotes from a section of my "Self-realization" paper (1986 [chapter 45 of this volume]), which I introduce by writing: "I do not *defend* all the views presented here: rather I primarily wish to inform you about them." Later in the section I write: "Gandhi says: 'I believe in *advaita* (non-duality). I believe in the essential unity of man and, for that matter, all that lives. Therefore I believe that if one man gains spirituality, the whole world gains with him and, if one man fails, the whole world fails to that extent.'" The quotation from Gandhi reminds me of his (and my) belief in the individual. It shook the world when, as the accused before the judge, Gandhi uttered, "The individual is the supreme concern."

Professor Callicott also writes that "scientific ecology will not support the claim that the self is in reality the Self, that the individual is identical with the world." I might join him in saying that support of that claim could mean the end of scientific ecology. At any rate, no one has, to my knowledge, found that the Eight Points imply a kind of nature mysticism, although many supporters show varying degrees of affinity with it.

Points 3 and 8 are the ones that most clearly belong to a (normative) ethic covering actions related to the ecological crisis. An *announcement* of an obligation is made in point 8, and an ethical *prohibition* is expressed in point 3. Both belong as part of an ethic of vast scope covering our relations to nonhuman beings. The search for an environmental ethic is, as I see it, a laudable undertaking from the point of view of the deep ecology movement. Some supporters would disagree, I suppose, but I am not sure that I know of any. Professor Callicott writes, "Deep ecology . . . rejects ethics outright" (1993: 325), but his four supporting quotations (three from texts by Warwick Fox and one from me) do not justify his claim. Like many others, I distinguish between an ethic as a normative system (in Professor Callicott's terminology "a conceptual system"; *ibid.*, p. 338) and acts of *moralizing*—that is, when one individual or group admonishes others to follow certain moral precepts. "We certainly need to hear

about our ethical shortcomings," I write in the article quoted by Callicott, but I have emphasized, and continue to emphasize, the rather limited motivational force of moralizing. The Kantian distinction between "beautiful acts" and "moral acts" is convenient here (see Naess 1993). Beautiful acts are compared with policies facilitating attitude changes in the direction of ecologically responsible behavior. Moreover, Warwick Fox certainly does not hold, as Callicott seems to suggest, that ethical norms having the structure of points 3 and 8 involve "narrow, atomistic, or particle-like conceptions of self."

2. In recent years considerable efforts have been made to distinguish two concepts; one is expressed by the term *intrinsic value* and the other by the term *inherent value* or *inherent worth*. What I intend to express by use of the term *intrinsic value* in the Eight Points is perhaps better conveyed by the term *inherent value*.

Some critics tell me that I must enter the professional philosophical debate about what exactly might be meant by terms like *intrinsic value*, *inherent value*, and *value in itself* (which I use in my book *Ecology, Community and Lifestyle* [1989]), but even in my comments on the Eight Points (which consist of about 400 words), entering this discussion would be misplaced. The Eight Points formulations admit of various interpretations, but they are interpretations with reasonably small differences. Although the level of vagueness and ambiguity must be within tolerable limits, professionalism would undermine the aim of the Eight Points.

3. I try in my ecosophy to be consistent in my view that individual beings, and only individual beings, can have inherent value, and not classes of individuals as such. (The term *intellectualis amor* in Spinoza's *Ethics* I likewise take to be the loving understanding of individuals.) Point 2 (which discusses diversity) makes this difficult unless landscapes, or the whole Earth, are taken to be individual beings, not classes of individual beings. If taken otherwise, I would be attributing value to some kind of mere multiplicity. I do not attach inherent value to species or families (as classes or sets of beings with more than one individual or element), but to diversity itself. From the "diversity norm," plus various hypotheses, I derive norms of priorities: the defense, for example, of threatened orders or families should have higher priority than that of species or subspecies, if there are no special reasons not to attach higher priorities to

the latter (for example, to families of insects as compared to species of mammals).

In the brief comments on the third of the Eight Points, it is not made sufficiently clear that the use of the expression "no right to" is an everyday use of *right*, as in "You have no right to eat your little sister's food!" It is not meant to be identical in meaning with "You ought not to eat. . . ." It does not imply an affirmative answer to the question of the existence of the "rights of man" or the "rights of animals." Because of vast controversies in professional philosophy about the concept of "rights," it may be unwise to use the expression "no right to" in point 3. I am not convinced about that, and the use of it opens up the good question "Why can't animals have rights?" If the answer is "Because they can have no obligations," this leads to the question "What about babies? the mentally ill?" Such discussions tend to lead people in the direction of softening their rigid views about human beings existing apart from nonhuman nature.

Concerning the term *vital needs*, several comments are readily at hand. What you *need* in your life is a small fraction of what you are led to desire in the rich countries, whereas in regions of desperate poverty the vital needs of the majority of people go unsatisfied regardless of whether or not they reduce the richness and diversity of life-forms.

4. In the 1984 formulation, population was discussed in point 5. The contents of points 4 and 5 suggest that, in terms of logical order, the population issue should be discussed in point 4 rather than point 5.

5. Many supporters of the deep ecology movement believe that a reduction in human population would, of course, be a great gain both for humanity and for nonhuman life, but they do not see how it could happen within the scope of a decent ethics. Some are willing to see reduction occur within a couple of centuries. What seems a little odd to me is that, at the same time, they can envision population stabilization (zero growth) occurring (without "nature taking over" in the sense of catastrophic wars or massive famines, or both). If transition to zero growth is thought to be practicable, why could there not also occur a population reduction of, say, one-quarter of a percent per year? Within several centuries that would make a lot of difference. A firm acceptance of the population-reduction point does not oblige one to speculate concerning how great a reduction one has in mind. That is a different question.

I seriously think that the Eight Points (or corresponding sets of points provided by other supporters) should be acceptable without hesitation to nearly all supporters of the deep ecology movement. I have found, therefore, that point 4 *might* be "softened," perhaps in the direction of formulations like the following: "It would be better for human beings to be fewer, and much better for nonhuman life-forms."

If the "decrease" or "reduction" terminology is retained in point 4, then comments should include these two points: The process of a slow but adequate reduction naturally will take more than a couple of centuries. The situation in some rich countries, where zero growth has been reached (or nearly reached), makes it important for governments to declare that nothing will be done to *counteract* a process of reduction in the next century. Those economists (and others) will be consulted who can show how a satisfactory economic situation can be maintained during the difficult transition period.

In a process of slow decrease of the population, there will be a *slight* increase in the percentage of people over the age of retirement. This could be partly alleviated by motivating a slight increase in the age of retirement. The amount of capital per person will increase slightly, as well as the availability of resources in general. The chances of significant unemployment will also be slightly reduced, and so on.

An adequate discussion of the economics of population reduction cannot be the aim of my remarks here. Both strategically and tactically, it is of central importance, in my view, that more people outside the economically richest countries realize that population reduction is compatible with maintaining, or increasing, the overall quality of life. Point 7 is meant to be relevant here. One cannot expect people in the poorer countries to believe in this point if very few people in the richest countries do.

The argument is often heard in rich countries that many sons are necessary in poor countries to provide security for one's old age. Actually, a substantial minority of people in the poor countries do not think this way (if four sons need sixteen sons, who need sixty-four, what happens then?).

Clearly, many people do not consider it possible that adults can have a close, warm relationship with small children they have not themselves produced. In many cultures, though, architecture and the use of space make it possible for small children to walk around safely and to be taken care of by

neighbors and friends. In such situations, young parents do not have to worry when they go to work, and the children might have close relationships, and even stay overnight, with “uncles” and “aunts.” Adults who wish to have small children around them, and like to spend a lot of time with them, are highly esteemed and form an indispensable part of the community. Under such conditions, one may have closer and *more durable* relations with small children than do parents in rich countries who have produced as many as four or five children.

I have used so much space talking about the population issue because I think that, in some countries, now is the time to reconsider the design of cities, and policies of spacing, so as to anticipate a slow decrease of population that may begin in the near future in some countries—say, within a couple of generations, or even sooner.

6. The deep ecology terminology was introduced, during the late 1960s, in a highly politicized environment. “Every question is a political question” was a slogan you might have heard repeated every other day in Europe during this period. The very able students of neo-Marxism and the Frankfurt School knew very well that slogans and repetitions are indispensable in a social movement. When the Green movement suddenly surfaced in European cities (in Norway with the astonishing slogan “Green Grass!”), it was laudable, in my view, that activism and the necessity of social and political change was made a central point. Economics, technology, and politics must be a subject of teaching and discussion in any “environmental” movement. The combination of points 6 and 8 is supposed to express the seriousness of this insight. That does not mean, of course, that all supporters of deep ecology must specialize in party politics or related activities.

Supporters of the deep ecology movement naturally work within the horizon of the “alternative future” movements. More specifically, they work with supporters of the Green movement (which may roughly be said to require of a society that it has largely solved the peace, social justice, and ecological sustainability problems). The intimate cooperation and mutual respect among people (whose *activism* is quite naturally focused on one, but not all, of these three problem areas) is excellent, and does not exclude strong utterances in favor of their own specialties. Such utterances strengthen our motivation.

Because the main work of supporters of the deep ecology movement concerns only a part of what is required of a Green society, there can be no such thing as a "deep ecology society." The deep ecological requirement of "wide" ecological sustainability (protecting the full richness and diversity of life on Earth), however, limits the kinds of Green societies that would be acceptable. Because (in accordance with points 1 and 2) deep ecologists view the intrinsic value, respect for, and support of deep cultural differences on a par with attitudes toward richness and diversity of nonhuman life-forms, any social or political trends of the fascist or Nazi kind run counter to the requirement of full ecological sustainability.

In Germany, some people become worried when they hear about deep ecology: "Sacredness of the soil? I remember Himmler, the terrible Himmler, talking and talking about that!" But acquaintance with the movement dispels the worries.

Critics have deplored the lack of an authoritative deep ecology blueprint for a society satisfying the requirements of the Eight Points—they are apparently looking for texts like Edward Goldsmith's *Blueprint for Survival* (1972), but updated. More or less broad visions of future green societies are expressed within the Green movement, of which the deep ecology movement is only a part. Visions are needed, but scarcely blueprints.

Personally, I envision deep cultural differences existing among green societies in different parts of the world. Valuable suggestions have been made since the 1960s, but they do not so far show, in my opinion, how diversity of thinking, acting, and cultural priorities may be normalized among future societies that satisfy the three requirements of peace, social justice, and ecological sustainability.

In any case, point 6 is not the place to go into specific requirements of social change. A vague, general suggestion along these lines is made in point 7, but I am not sure that it is a good idea to have even a point like that. It only vaguely suggests something about the general direction of the political changes needed. At any rate, it has been a great satisfaction to note that no supporters have indicated that I overrate the importance of political change as a necessary condition of surmounting the ecological crisis.

There are supporters who think that the formulation of the Eight Points has been overrated, that they do not deserve the position of importance they are sometimes accorded. If the points were taken to express *the*

philosophy characteristic of the deep ecology movement, or even *the* principles of deep ecology, that would be, in a sense, a grave misinterpretation of those approximately 200 words used to express those points. Maybe it should be repeated more often that they *only* present an attempt to formulate what *might be* accepted by the great majority of the supporters of the movement at a fairly general and abstract level. Different sets of formulations are needed to express something similar, but in the language of supporters in the nonindustrialized parts of the world. As formulated, the Eight Points are in a sense provincial—adapted primarily to discussions among formally well educated people in rich countries.

When introducing the Eight Points in nonindustrialized societies, I use very different formulations—sometimes, for example, not speaking about the Earth at all—and I limit the intended validity of point 7 to the rich countries. It is a curious phenomenon that some people in the West think that poor people don't fight for the preservation of nonhuman beings for their own sake. In 1973 the families of a poor village in Nepal voted 46 to 0 to send their headman with a petition to *protect* their sacred mountain Tseringma (Gauri Shankar) from tourism—forgoing the vast income they might have gained. (Incidentally, the name Tseringma means “the mother of the good long life.”) Without having seen such phenomena, I would not talk about the broad *international* deep ecology movement.

In conclusion, I would like to ask forbearance for talking so much about such a small set of formulations, and only because they have so far been helpful in fostering feelings of being closely together in an immense task of supreme value.

## Equality, Sameness, and Rights

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My intuition is that the right to live is one and the same for all individuals, whatever the species, but the vital interests of our nearest nevertheless have priority. The rules that operate when interests conflict include two important factors: vitalness and nearness. The greater vital interest has priority over the less vital, and the nearer has priority over the more remote—in space, time, culture, and species. Nearness derives its priority from our special responsibilities, obligations, and insights as human beings among human beings.

The terms used in these rules are of course vague and ambiguous, but even so, the rules point toward ways of thinking and acting that do not leave us helpless in the many inevitable conflicts between norms. The vast increase of negative consequences for life in general, brought about by industrialization and the population explosion, necessitates new guidelines.

For example, the use of threatened species for food or fur clothing may be more or less vital for certain poor families in nonindustrial human communities. Among people who are not poor, however, such use is clearly ecologically irresponsible. Given the fabulous possibilities open to the richest industrial nations, it is their responsibility to cooperate with poor communities such that undue exploitation of threatened species, populations, and ecosystems can be avoided.

It may be of vital interest to a family of poisonous snakes to remain

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where they have lived for hundreds of generations but where small children now play, but it is also of vital interest to the children and their parents that there be no accidents. The priority rule of nearness (and a sense of responsibility) makes it justifiable for the parents to relocate the snakes. However, the priority of the vital interests of the snakes is important in deciding where to establish the playgrounds in the first place.

A personal testimony: I have injured thousands of individuals of the tiny arctic plant *Salix herbacea* during ten years of living in the high mountains of Norway, and I shall feel forced to continue stepping on them as long as I live there. However, I have never felt the need to justify such behavior by thinking that they have less right to live and blossom (or that they have less intrinsic value as living beings) than other living beings, including myself. It is simply not possible to live and move around in certain mountain areas without stepping on myriads of these plants, and I maintain that it *is* justifiable to live in these mountain areas. When I behave as I do, I can (at the same time) admire these plants and acknowledge their "equal" right to live and blossom with my right to do so: not less and not more. It is therefore a better formulation to say that living beings have a right (or intrinsic or inherent value, or value in themselves) to live and blossom that is the *same* for all. If we speak of differences in rights or value, we do not speak of the rights or value I have in mind. It is not meaningful to speak of *degrees* of intrinsic or inherent value when speaking of the right of individuals to live and blossom.

What I have done here is try to verbalize an intuition, although any such verbalization may be misleading, and this one has certainly often misled others. There are other intuitions and thousands of slight differences in attitude reflecting different valuations of various sorts. For example, if there is a choice of whether to step on a *Salix herbacea* or on the rarer, more overwhelmingly beautiful *Gentiana nivalis*, I unhesitatingly and deliberately step on the former.

The abstract and somewhat grandiose term *biospherical egalitarianism in principle* and certain similar terms that I have sometimes used perhaps do more harm than good. They may be taken by some to suggest a major *doctrine* of sorts, but that goes way beyond my intentions. As I see it, the importance of the intuition I speak of resides in its capacity to counteract, perhaps only momentarily, the self-congratulatory and lordly attitude to-

ward those beings that may seem, to some people, to be less developed, less complex, less beautiful, or less miraculous.

When I characterize this as an intuition, I do not imply the absence or lack of a rational basis for it, but rather that there are other factors operating here. For example, the increase in demand for rigor in mathematical proofs eliminated certain intuitions. But intuitions still operate, as when mathematicians choose axioms and other fundamentals.

A rich variety of acceptable motives exist for being more reluctant to injure or kill a living being of kind *A* rather than kind *B*. The cultural setting is different for each being in each culture, and there are few general norms—only vague general guidelines. The more narrow and specific the questions posed, the less vagueness there will be. For example, I have proposed norms relating to communities of bears, wolves, sheep, and sheep owners in Norway.<sup>1</sup>

Another relevant factor is the *felt nearness* of different living beings. This factor largely determines our capacity to identify strongly with certain kinds of living beings, and to suffer when they suffer. One cannot put forth ethical rules of conduct without taking our limited capacities, and such personal feelings, seriously. If it is difficult to avoid killing *A*, for example, because of its smallness, whereas killing *B* is easily avoided, then we tend to protect *B* rather than *A*. Moreover, there is an obvious diversity of obligations. We have special obligations toward our own children: any animal may be killed in order to feed one's starving child. Obligations toward individuals that have been members of our communities for long periods of time are greater than toward accidental visitors. Furthermore, there is, of course, the relevance of suffering: Is the suffering of *A* less than that of *B*? Does *A* have the capacity to suffer?

The rather simple thing I am trying to convey here is that an ethic that attempts to deal with the *differences* between nonhuman living beings is on a comparable level of complexity with an ethic that concerns itself with our behavior toward the people and groups with which we interact.

Related to the above, I prefer the term *living being* to the term *organism*. The intuitive concept of "life" (or "living being") sometimes includes a river, a landscape, a wilderness, a mountain, and an arctic "waste." The intuition has a little, but not much, to do with biology or neurophysiology. Intrinsic value, as posited by the intuition, is influenced, but not decisively,

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by “biological news”: for example, news about the whale’s nervous system complexity being comparable to that of human beings.

The kind of intuition I have been speaking about I take to be rather common among supporters of the deep ecology movement. It is not easy to verify this in detail, however, because of terminological and conceptual differences. The broad stream of nature poetry, over thousands of years, is perhaps the best source of confirmation of the widespread intuitive appreciation of the *same* right of all beings to live and blossom.

## The Breadth and the Limits of the Deep Ecology Movement

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The gist of what I say here may be expressed in three sentences: To be joyfully active in the deep ecology movement is a serious affair. It is ethically unobjectionable not to combine that involvement with being active in the peace movement and the social justice movement. We respect our partners in the Green movement but have “more than enough!” to do where we stand.

It is a never-ending joy to think of the existence of a broad movement to protect the wild and free from thoughtless interference by human beings. It is a special joy to see how many people primarily occupied with mere survival nevertheless try to protect locally what is left of free nature. Defenders of free nature are, of course, always in a minority, but to be aware of comrades in arms locally and in so many countries helps to reduce the feelings of sorrow that can easily take hold when we contemplate the reigning passivity in the face of the ecological crisis.

I shall never forget traveling in 1949 through India and Pakistan to a mountain bordering Afghanistan. Because of our lack of money and the five hundred pounds of equipment and food, we inevitably came in close contact with people who were very poor from the point of view of the West. They were eager to hear what made us leave our country on a kind of pilgrimage. Again and again, it astonished us to see how well they understood our longings, and it was touching to hear them often say “How I would like to be with you.” Through more than twenty-five hundred years, their culture had embraced a respect for the dignity and wisdom of mountains and the living beings roaming the (at that time) enormous Himalayan forests.

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Of course, all they could do was, together with other activists, protect the patches of free nature in their own neighborhood.

How do people in materially poor countries react when we talk about deep ecology? Using words common in their own cultures, many say "But this is what I always have felt!" This is not a majority reaction, but a minority that I guess is no smaller than in the so-called rich countries. Some are glad to get words for what they feel.

People who have never heard the term are supporting the deep ecology movement. Most supporters would feel bored if I, as a theoretician, started conceptual clarification of details. Yet, their efforts are consistent with deep ecology and often restrain the galloping destruction in their neighborhoods. It is a strange belief that people who work hard to survive are somehow unable to feel the majesty of mountains, the inherent value of forests and wildlife. Yet, many people believe that they are more "anthropocentric" than we are in the technocratic West.

In short, it is encouraging to experience the vast, intercultural roots of deep ecology attitudes and to see that they are alive among people who focus on procuring life's necessities. The deep ecology movement is broader than sometimes suggested. The broadness shows itself in the variety of scenarios for a better future envisaged by the supporters. Human cultural diversity is part of the richness of life-forms on Earth. Many supporters do not seem worried about the prospect of fairly uniform green societies all over the globe, but as I see it, ecological sustainability as an absolute requirement does not limit social-political structure to a single culture.

The peace movement, the social justice movement, and the radical environmental movement are the three movements in which work at the grass-roots level by hundreds of thousands of people is indispensable and has considerable influence in world affairs. Within the radical environmental movement, I include not only the deep ecology movement but also highly engaged "radical" supporters of more anthropocentric views who have the same serious view of the ecological crisis as the supporters of the deep ecology movement. Each of the movements introduces limitations on the range of cultures. The requirements of the three overlap but are not identical.

The tremendous upsurge of environmental concern since the 1960s has caused many supporters of the peace and social justice movements to jump on the environmental bandwagon, but all three movements constantly

need reinforcements. Because they are dynamic social movements, exact delimitation of the three is, of course, out of the question; historically, though, much can be said about what has happened since the Second World War in terms of those three.

In the 1950s, when Third World problematics gained force (with, for example, "Trade, not aid" as a slogan), there was considerable pressure to combine the peace and social justice movements into one. Some activists supporting this combination saw social injustice as a sort of violence, *structural* violence. The nonviolent battle against large-scale violence then comprised both the "classical" peace movement and a large part of the social justice movement. (Johan Galtung's works are central to this trend.) It has turned out, however, that people inspired by the vision of a world without wars had more than enough work to do without direct participation in the complexities of how to fight social injustice, even though activism against maldistribution and imperialism and other forms of obstructing self-realization potential over vast areas can be compatible with keeping peace. On the other hand, active involvement in typical social justice conflicts may require all of one's energy and leave no time for activism in matters of peace. The division of labor, however, does result in underestimation of the work of our friends in the other movements.

In recent decades millions of very poor people in Southeast Asia have seen their standard of living significantly bettered. How can we but rejoice? Yet, interference with ecosystems has concurrently increased. The prospect of a billion or more people being rescued from severe need does not necessarily mean a gain in overcoming the ecological crisis. Leaders of social democratic regimes often talk as if development were part of the (smooth) way of overcoming the crisis. This talk is politically convenient but utterly misleading.

The empowerment of people in the West living in a most degrading way in the midst of an opulence never equaled in world history (read "in human recorded history of human societies") is an imperative, and more people are needed to try to change those shameful conditions. Some supporters of the deep ecology movement may feel they ought to join, and that may be the right thing for them to do. They know, though, that the fight against the ecological crisis will still need as many activists even if the shameful conditions are eliminated.

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The very ambitious aim of the Green movement as conceived in Europe in the late 1960s is to reach the goals of all three great grassroots movements: no wars, social justice, and full ecological sustainability. When students voted overwhelmingly in the first green wave, they were led by former anarchists, Marxists, and peace activists. The Green movement is supposed to avoid one-sidedness and sectarianism, letting the three movements blossom in constant close collaboration.

Collaboration does not imply extensive reading of all pertinent literature and keeping informed about details of what is going on in the other two movements. That tends to feed depression and despair. Reading is passive, and the information from all over the world is mostly discouraging. Perhaps I say this because of my experience of living under Nazi occupation from 1941 to 1945, but a persistent question is, How about morale? Can anything be done to keep it (the fighting spirit) at its highest level?

In sum, let us do our job as well as we can and rejoice that others do theirs, keeping in touch and sometimes acting together. This is the surest way to keep the spirit.

## The Apron Diagram

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### Overview

I see the deep ecology movement and its supporters as part of a total view that comprises many levels and many ultimate philosophies and diverse practices in close contact with one another. To illustrate this I use an “apron diagram” (figure 2), which illustrates logical, as distinct from genetic, relations between views. By *logical relations*, I mean verbally articulated relations between the premises and conclusions. They move down the diagram in stages: some conclusions become premises for new conclusions. By *genetic relations*, I refer to influences, motivations, inspirations, and cause-and-effect relations. They are not indicated anywhere in the apron diagram. They may move up and down or anywhere, and they involve time.

The platform principles of the deep ecology movement can be grounded for individual supporters in a religion or an ultimate philosophy. The religions and philosophies from which people can support these principles are many and diverse. In a loose sense the movement can be said to be derived from these kinds of fundamentals. The situation reminds us that a set of very similar or even identical conclusions may be drawn from divergent premises. The platform can be the same, even though the fundamental premises differ. One must avoid looking for one definite philosophy or religion among all the supporters of the deep ecology movement. Fortunately, a rich manifold of fundamental views are compatible with the platform of

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## THE LONG-RANGE DEEP ECOLOGY MOVEMENT

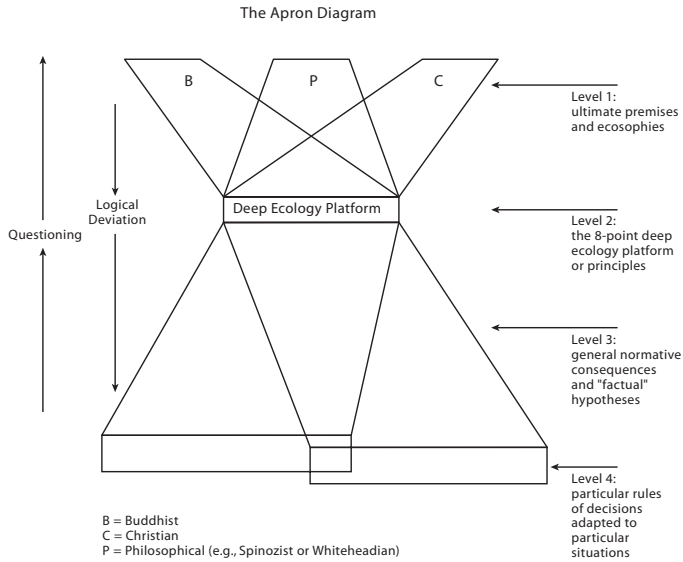


Figure 2. The Apron Diagram

the deep ecology movement. Supporters live in different cultures and have different religions. Furthermore, manifold kinds of consequences are derived from the platform because of these differences, because of differences in local conditions, and so on.

We must take four levels into account: (1) verbalized fundamental philosophical and religious ideas and intuitions; (2) the platform of the deep ecology movement; (3) more or less general consequences derived from the platform—lifestyles and general policies of every kind; and (4) concrete situations and practical decisions made in those situations.

The possibility of the platform principles being derived from a plurality of mutually inconsistent premises—the *B*-set and the *C*-set—is illustrated in the upper part of the apron diagram. *B* can be Buddhism, and *C* can be Christianity. *P* may be Spinoza's philosophy, or it could be Ecosophy

T. Similarly, the lower part of the diagram illustrates how, with one or more of the eight principles as part of a set of premises, mutually inconsistent conclusions may logically be derived, leading to the *C*-set or *B*-set of concrete decisions. *C* might be inspired by a sort of Christianity, and *B* by a sort of Buddhism. Or, again,  $P_1$  may be Spinoza-inspired while  $P_2$  follows a certain ecological philosophy. (Unfortunately, the relation of deepness in the apron diagram leads upward. If we are to avoid mixing metaphors, the apron should be turned upside down.)

The distinction between the four levels is important. Supporters of the deep ecology movement have ultimate views from which they derive their acceptance of the platform, but those views may be very different from person to person and from group to group. Likewise, supporters may disagree about what follows from the eight points, partly because they interpret them differently, partly because what follows does not follow from those eight points alone but from a wider set of premises, and these might be in conflict.

The deep ecology movement thus can be seen to manifest both plurality and unity: unity at level 2 (as is true for many global grassroots movements) and plurality at other levels. The apron diagram can be used to illustrate the same general aspects of other international movements, such as the social justice and peace movements.

### Further Elaboration and Examples

1. Let us start by asking, What beliefs of supporters of the deep ecology movement might separate them from the rest of the supporters of the environmental movement? What might separate them on a fairly general and abstract level? No one answer is supposed to be the correct one, and the question itself may be interpreted in somewhat different ways.

Suppose one proposal contains eight points, each expressed through one, two, or three sentences. We are now going to study such a proposal from one and only one point of view, the premise-conclusion point of view.

2. We ask, How do supporters of the deep ecology movement justify their stated beliefs? Are some stated beliefs *based* on other beliefs they have? They cannot be based on other beliefs, because then you would have to have infinitely many. You must stop somewhere. Some are ultimate, at least temporarily ultimate. (Note that in speaking of beliefs we do not intend to

say that they are “*only* beliefs,” that is, that they are not certain or true or right or expressing facts.)

According to my experience, supporters of the deep ecology movement usually state beliefs on which they base some or all of their “eight-point beliefs.” These normally, but not always, have the character of ultimate beliefs, making them premises for their eight-point beliefs. That is, they suggest that from the former beliefs the eight-point beliefs follow as conclusions; thus, they accept the former beliefs as premises.

An example: Peter, a supporter of the deep ecology movement, says that all living beings have value in themselves. We ask him to justify that, if he does not think it is self-evident. Peter answers with two sentences: “Creatures that God has created all have a value in themselves. God created and creates every living kind of being.” We will say that Peter infers “All living beings have a value in themselves” as a conclusion from the two premises. He may then use the conclusion as a premise for new conclusions, for example: “Bacteria have value in themselves.” He only needs one more premise, namely, “Bacteria are living beings.” The new conclusion may again be used as one of the premises for reaching new conclusions. We get a *chain* of premise-conclusion relations.

We now introduce a distinction between “beliefs on level 1” and “beliefs on level 2.” Premises of the beliefs stated in the list of eight points we call beliefs on level 1, and the eight points themselves we call beliefs on level 2. Or speaking more generally: A set of beliefs that presents a proposal of what supporters of the deep ecology movement have *in common* on a fairly general and abstract level we call a set of beliefs on level 2. The premises of such a set, suggested by supporters of the deep ecology movement, we call beliefs on level 1.

In the example, the supporter of the deep ecology movement clearly has the existence of God as a creator as a premise. If he happens to have premises for his belief in God as a creator, we say that they also belong to level 1. That is, *any* premise Peter *uses* for his level-2 beliefs we class as belonging to his level-1 beliefs. We are not here interested in *what* they are, but that they are premises of the level-2 beliefs.

3. It turns out that different supporters of the deep ecology movement announce different level-1 beliefs—often incompatible sets. Or one sup-

porter does not understand at least some of the first-level beliefs of another supporter. To me a couple of Gary Snyder's Buddhist first-level beliefs, or rather some of his sentences expressing these beliefs, are ununderstandable. I might understand them if I studied Buddhism carefully enough, but such a study has no high priority: we agree on level 2.

The diversity of level-1 beliefs is a strength, not a weakness. There are no deep cultural differences without diversity at level 1.

Unity in diversity: unity at level 2, diversity at level 1!

4. Now we jump to a level we call level 4: practical decisions in concrete (dated) situations. "Ah, a moose in our garden. What do we do? Call the police!" Fifty years ago some people in Oslo ran for their guns. Now, (decent) people call the police, who are in charge of the practical decisions: shoot in earnest, shoot to tranquilize and transport the moose far out of Oslo, and so on. The decision to call the police may be taken by a supporter of the deep ecology movement, because he or she knows the rules and finds it is the best solution for the *moose*.

The level-4 decision cannot be based solely on level-2 beliefs. Critical, complex thinking involving a variety of beliefs intervenes. Those we say belong to level 3. Only under rare and special conditions do we try to articulate as fully as we can the additional premises leading from level 2 to level 4—"leading" in terms of a premise-conclusion chain. Difficult? In theory, yes, but we all sometimes use the aspects of premise and conclusion.

More or less inevitably, level 1 contains philosophical or religious beliefs (or both). I propose to characterize, or even define, a supporter of the deep ecology movement as a person whose environmentally relevant beliefs are based on philosophical or religious beliefs in the sense of having beliefs on level 1 that are, at least in a broad, *nonprofessional* sense, philosophical or religious.

The argumentation pattern of a supporter of the deep ecology movement, taken as a whole, reveals references to *ultimate premises*. This relates to the preferred sense of the term *deep*: the argumentation, if the supporter of the deep ecology movement tries to state what he or she ultimately stands for (in questions related to the environment and the ecological crisis), touches rock-bottom questions. Sheer deepness is not enough, however; the argumentation goes through level 2! James Watt, the U.S. administrator of

environmental policy under President Reagan, based his decisions on rock-bottom beliefs within his form of Christianity ("Why so much preservation when the end is near?"). He certainly did not accept any of the Naess-Sessions Eight Points or similar proposals.

A small technicality: some supporters of the deep ecology movement find that the intrinsic value of living beings is obvious, self-evident. Do we then say that they have no level-1 beliefs at this point? We may, but we may also say that the point belongs to *both* level 1 and level 2 for these particular supporters. Logically it is okay; they tell us that from premise *P*, the conclusion *P* follows. Anyhow, to hold that every living being has a value in itself is to enter the sphere of philosophical considerations. There are naturally a host of questions related to the four-level conception that lead us into difficulties, but here is not the place to go into them.

What, then, is the four-level conception good for? To sort out agreements and disagreements. For example, if by ecofeminism you mean that the ecological crisis owes essentially to the domination of masculine-type value priorities, this can be articulated on level 3. The strategy for overcoming the crisis, the level-4 decision, will be colored by a point of view belonging in deep ecology movement argumentation patterns. It shows up in the argumentation pattern of well-known deep ecology ecofeminists like Patsy Hallen (1987). Some supporters of the deep ecology movement will not entirely agree, and disagreement occurs between supporters of the deep ecology movement on levels 3 and 4.

The so-called apron diagram illustrates the kinds of room for agreement and disagreement. It is, however, not meant to suggest that only one definite set of level-2 beliefs should be available. Changing one or more of the eight points of the Naess-Sessions proposal means that changes will follow on the other levels. A movement is dynamic and manifests changes of emphasis.

Two things are often forgotten: the apron serves to clarify the specific character of a subspecies of the environmental movement. In a subspecies characterization, one does not include characteristics of the species as a whole. Supporters of the shallow or reform movement tend to argue only on levels 3 and 4, that is, their argumentation pattern when described in terms of the apron is wholly contained at those levels.

Against the term *shallow* the reformists argue that going into philoso-

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phy, questions about intrinsic value, meaning of life, and so on, is side-tracking the issue, getting lost in a blind alley, plus it undermines realistic cost-benefit analysis. It is therefore a plus, not a minus, to limit oneself to levels 3 and 4.

The second thing easily forgotten is the fact that the apron consistently limits itself to premise-conclusion relations; this arrangement is only one among many others, the “genetic” arrangements.

## What Do We as Supporters of the Deep Ecology Movement Stand for and Believe In?

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The following was written after some discussions on creating policies to support the development of green societies and on policies in green societies. I argue that we need an unpretentious, tentative survey of options.

Full long-range regional and global ecological sustainability! This implies biodiversity *and* abundance of life-forms. The present emphasis on avoiding threats of extinction is not enough: populations that reach high levels should be interfered with only for ecological reasons or strong reasons of human health.

(Restoration biology: where practically possible, degraded ecosystems should be restored. A plan formulated for Sweden in Sweden: about \$20 billion yearly for restoration purposes. Politically impossible!)

It is generally agreed that present-day industrial societies are ecologically unsustainable. Any future *industrial* society would be unsustainable. To try to “repair” present-day industrial societies would only make them survive a little longer. Sets of technologies, if any, *presupposing* that the society as a whole is industrial are therefore to be avoided.

Example: Suppose a million people *within* a future green society are strongly interested in certain questions in astronomy and propose that an “advanced” and powerful telescope be produced. The following are some of the reactions to this proposal among supporters of the deep ecology movement:

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1. "In a green society of the sort I envisage, people are not interested in astronomy of the kind that requires 'advanced', powerful telescopes. There would be no one, or too few, deeply interested in that."
2. "To ask for that kind of a telescope implies asking for a considerable fraction of contemporary 'advanced' technology. It necessitates heavy metals and a great variety of energy-costly machinery. It requires big organizations and institutions of the type characterizing contemporary industrial societies. In short, to obtain such a telescope implies a society too much like the present-day unsustainable industrial societies."
3. "It is hoped that the future planet will support deeply different green societies—perhaps twenty deeply different ones. At least one may have a great number of members interested in parts of astronomy, cosmology, or other fields of research demanding such energy-intensive technology. Perhaps a powerful telescope can be produced without making the society as a whole ecologically unsustainable. It might require, say, a million people who are very eager to have the telescope and who are willing to live more austere than the rest. This way, the influence on the ecosystems by that million will not be greater than what each of the other millions creates and which we suppose satisfies sustainability requirements. Ideologically, the urge to continue parts of present-day astronomy may or may not be dangerous for the greenness of the societies. The danger of such a future astronomy will depend upon how current astronomical data are interpreted and whether there is still a belief in 'reductive' philosophies of science."

It is today difficult to answer the questions posed, and it is, of course, not of primary importance to arrive at an answer today.

Conclusion: the three different reactions are today *compatible* with support of the deep ecology movement.

The example suggests that some energy-expensive tools used in the exact sciences today are in many ways incompatible with the kinds of technologies envisaged in green societies. They are not incompatible when



viewed isolated from the general substructure they require, but to neglect to consider the substructure is to avoid the question posed.

What are the kinds of technologies adapted to the basic premises of a green society? Well, how many words can such an answer contain? If one uses fewer than 100 words, the answer is either very superficial or, in a sense avoiding the question, it must contain references to texts with preexisting answers that contain perhaps thousands of words.

It should be noted that the question is much wider than the preceding question. A green society presumes far-reaching solutions of peace problems and social justice problems. Some technologies that are unobjectionable from an ecological viewpoint may be objectionable from the other two points of view.

A two-word answer adapted to the sustainability question: soft technologies. There are texts defining concepts of softness. People may have different opinions regarding which concept is such that it suits the two-word answer. The bigger the population, the softer the technologies required.

An answer requiring more words: soft technologies are technologies of such a kind that the products, produced in adequate quantities, require very little energy, use very little or no nonrenewable resources, and leave very little garbage or, more generally, cause very little pollution or have no long-range objectionable effects. This answer contains fewer than fifty words, but does it help us much? One peculiar thing is the repetition of the expression "very little." Obviously, it reminds us of the importance of the sheer *volume* of production.

Example: A supporter of the deep ecology movement is in favor of continuing to add fluoride to drinking water (as is done in some countries to avoid tooth decay). A contra-argument is that fluoride is an extremely strong poison. But a contra-contra-argument says that practically everything or very many things we use are poisonous in *large* quantities, and in this case we are using extremely small quantities. A second counterargument reminds us that producing pure fluoride chemicals requires a substantial industrial substructure. A third counterargument says that in a green society the food is such that tooth decay is avoided. A small minority

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may not pay attention to the health of consumers, but it makes no sense to introduce fluoride for their sake.

Contributions to the technology discussion that do *not* seem to require that the technology fostered by today's rich industrial countries be severely problematized, are incomplete. What we as supporters of the deep ecology movement need are contributions that clearly have as a premise exactly that problematization. We do not need discussions regarding how to "repair" industrial societies while keeping them industrial.

An introductory talk about technology serves its mission when it clearly shows the infinite ramification that is unavoidable if you ask for practical advice. Only *guidelines* can be suggested. It is too early—with unsustainability still increasing—to do more than discuss various "scenarios." We shall now introduce a completely different theme.

Introductions to deep ecology, whether in separate lectures or in courses, should take care not to be one-sided. There are three forms of one-sidedness that deserve mention. Some supporters exalt the beauty and other positive features of nature and what they call natural. What is needed is said to be more love of nature. Others express with ardor the spiritual side of nature—spiritual ways of cultivating nature and the importance of an individual and collective spiritual process of awe-awakening and maturity. One of the often-used terms is *ecological consciousness*, the inner ecological awareness. The literature sometimes resembles New Age writings: what is basically needed is more spirituality, a new religion perhaps. Still others center their talk or writing on the social and political aspects of the ecological crisis, *seemingly* being of the opinion that overcoming the crisis is *entirely* a question of changing current social and political relations, that the crisis is caused by social and political anomalies such as suppression and domination.

Discussion in depth with members of the latter two groups tends to make it fairly clear that they recognize a great variety of causes of the ecological crisis and a variety of approaches to overcoming it. They, however, *concentrate* on one kind of cause and one kind of approach. They are without adequate basis, *thought* to ignore or reject other approaches.

We should not waste time in polemics! There are many ways of talking and the front is long: people are needed along a vast front. Let people con-

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ceive *their* particular work as crucial! Those who have to do with distribution of public funds and facilities should express a broad view, but they cannot avoid setting up lists of priorities. The same holds true of editors of periodicals and organizers of courses.

An essential aspect of the deep ecology movement is activism: from theory to practice, and from practice to theory. One may express it like this: the full meaning of a theory can only reveal itself in practice, and practice is blind without theory.

The term *activism* in environmental matters is not a narrow term for direct actions—sometimes violating laws, courting prison sentences, and so on—but for a continuous, insistent, persistent work with people and campaigns. A specialist in the theory of social movements, especially the deep ecology movement, may sit in libraries all year round, and he may tell us important things, but I don't think it is natural to call him an activist in the deep ecology movement. Activists are led by a worldview that requires action in practical, particular situations in favor of the goals of the deep ecology movement. Most participants in the deep ecology movement don't like to be labeled, to be classed as parts of a movement. Therefore, I have introduced the term *supporters* instead of calling them members or participants. A supporter may, for example, *avoid* the typical terminology of the deep ecology movement. Warwick Fox and others tend to think that "deep ecology" has been made into a slogan, covering much that has little to do with the basic tenets of the movement. Personally I think that such misuse is unavoidable, but it does not weaken its serious impact.

Deep ecology: optimistic or pessimistic? One essential thing supporters have in common is the view that current global trends increase ecological unsustainability. We have not reached the turning point, and the outlook for the next twenty or thirty years is somber.

When will the turning point be reached (if at all)? Opinions vary. I guess that the beginning of the twenty-second century is a realistic possibility. The so-called greening of production and development of new technologies said to be going on *now*, and the many contemporary "green inventions," do not ensure that we will ever reach the turning point. Analogy: The leaders of an expedition to reach a mountain in a little-

explored area agree that they have to change direction from going north to going south, but such news will upset the members too much. They decide to go northeast and slow down the tempo somewhat. The supporters of the deep ecology movement do not fear the misgivings but repeat and repeat that we have to change radically the *direction* of the major trends of development, and the dominant concept of "development" itself. The decisive change of direction must be expressed in acceptance of significantly new policies and of ways of life that are in harmony with those policies.

Under the title "alternative movements" many movements in many countries, some supported financially by governments (e.g., in Norway), try to produce blueprints of postindustrial, postmodern societies. They include ecological sustainability, but mostly not *full* sustainability, just avoiding major calamities.

Supporters of the social justice movement, including the antihierarchy movement, cannot alone offer a blueprint for a green society. Nor can supporters of the deep ecology movement do so without close cooperation with the other two great movements requiring grassroots activism: the peace movement and the social justice movement against extreme poverty, social discrimination, and hierarchical oppression.

Viable green societies must include a far-reaching elimination of the evils fought against by the other two grassroots movements. Limitation of time and energy make it difficult, if not impossible, to be an activist in all three movements simultaneously, but efforts must be made to share information and to join forces when necessary.

It is theoretically possible that ecologically high-level societies have deep "blue" scars, are authoritarian, even dictatorial, or that most people there are poor. In short, the requirements of fulfilling ecological sustainability do not determine every essential characteristic of a green society.

These are mere reflections. They are based on a conviction that articulation of deep ecology attitudes will significantly hasten a turn toward more responsible policies.

## II

### A Note on the Prehistory and History of the Deep Ecology Movement

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The expression originally used for the deep ecology movement was a somewhat longer one: the long-range international deep ecology movement. It was later argued that *long-range* and *international* might be defined so as to be included in the deepness. The original expression makes it not only convenient but factually well founded to start this brief history with the publication of Rachel Carson's *The Silent Spring* in 1963 and the resulting controversies elicited by the cooperation between the U.S. Department of Agriculture and the chemical industry. The controversies revealed political, economic, and technological forces that could engender future silent springs. Rachel Carson went deep and questioned the premises of her society—an essential difference from the argumentation pattern of the shallow ecology movement.

Before 1963, attitudes and opinions corresponding to some of those characteristic of the deep ecology movement are found in many, perhaps practically every culture, and as far back as we have written materials. The deep ecology movement was, soon after *The Silent Spring*, made the object of studies, mostly from special viewpoints. It seems useful, however, to retain a conception that covers all aspects of the kind of achievement Rachel Carson was known for: primarily the warnings about man-made ecological disasters magnified through the involvement of industry and agriculture; secondarily the effort to implement new policies and personal activism; thirdly the philosophical and religious view of life and what makes life meaningful, especially as the basis for an environmentally alert ethics.

The third aspect, the ecophilosophical aspect of the movement, has

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motivated the use of the term *deep ecology* for a kind of philosophy and the use of *deep ecologists* as a name of a small group of writers and theorists who use the term and support the movement. The movement is, however, a very broad social phenomenon, essentially comprising all three aspects. It asks for changes in all facets of human life.

The history of the forerunners of the global deep ecology movement and its literary supporters in the United States has been the object of a large group of studies by George Sessions (see, e.g., 1981). Of others contributing to this history, the work by the historian Stephen Fox (1981) and the philosopher Warwick Fox (1990) deserves special mention, but there are also other historical studies on a high level of interest and competence.

The complex European trend of Romanticism from the time of Goethe to the present furnishes rich materials. The history of the cleavage between attitudes and opinions characteristic of those of the deep, socially and politically committed, ecology movement and the reform or shallow ecology movement is closely connected with the history of the interaction between the Enlightenment and Romanticism, especially the background of anthropocentrism in relation to ecocentrism. The Romantic painters were more ecocentric in at least one interpretation of the term. Those terms did convey some information when they were introduced, but very little is left now because of widely different interpretations.

The philosophy of man-nature relations is one of the main features of the history of European philosophy and religion. Of the many works dealing with European background matters, Clarence J. Glacken's *Traces on the Rhodian Shore* (1967) and John Passmore's *Man's Responsibility for Nature* (1974) deserve special mention for their influence in English-speaking countries.

The "discovery" of the mountain wilderness of the Alps was important for the appreciation of territories "of no use" and for the general effort to stop the increase of human territorial domination. A special branch of the general Romantic trend experienced and described Alpine areas as awe-inspiring, superbly beautiful, and, what is still more important, full of intrinsic meaning and value. The areas *communicated* meaning of their own. The landscapes did not need human beings and they did not need to be useful to humankind to justify their existence. The art of painting convincingly showed a turn from admiration of the gardens, the artful and artifi-

cial horticulture of Versailles, the useful and moderate landscapes with human activity and concern at the center, to the admiration of magnificent, self-sufficient landscapes with little or no trace of human purpose. Forests were painted with trees rotting, and life-forms shown that depend upon the presence of “dead” trees.

Wild nature was considered vitally useful for the realization of *human* potentials as soon as the worries of poverty were transcended. Analogous trends had occurred on a vaster scale outside Europe.<sup>1</sup> Recently, the religious meaning of high mountain peaks for the Incas has been brought to light. The old Babylonian culture also made reference to the religious meaning of mountains. “In Mesopotamia, the ‘mountain’ is the place where the mysterious potency of the earth, and hence of all natural life, is concentrated.”<sup>2</sup>

The art, philosophy, and religions of the East contained trends corresponding to those of European Romanticism. Because of the absence in the East of a uniquely strong rationalist tendency, these trends did not acquire labels like “romantic.” The European Romantic trend in painting is now looked upon *as a form of realism*. It favors a realistic appreciation of human relations to nature. The dominant modern Western trend has been unrealistic and self-destructive.

There is a prevailing ahistorical notion that enthusiasm for and a spiritual cult of the “useless” and “barren” has only been present among the well-to-do. History, however, tells us that just as there always have been poor people traveling to Mecca, there have been poor people struggling to reach and enjoy “hostile” landscapes. Economically reckless feasts have always been a central feature of many cultures. They often left the poor considerably poorer for a long time afterward, but without loss of life quality. One should be careful not to underrate the feelings among the poor for the great and so-called useless. Such feelings may be stronger than among the industrial rich.

The widespread frustrations following the two world wars and the war in Vietnam undermined the arrogant Western notion of progress and its self-congratulatory application of the concept of “advanced society” to a very small part of humanity. A new cultural anthropology emerged with no presumptions of modern Western cultural preeminence.

A work like Marshall Sahlins’s *Stone Age Economics* (1972) opened up vi-

sions of economic systems with less stress and the opportunity for deeper cultural activity than those afforded the average person in the richest industrial nations. The new cultural anthropology inspired belief in a future with a wealth of cultural differences proportional to the wealth of human cultural potentials, and compatible with full richness and diversity of non-human life-forms. Cultural anthropology and the study of human cultures show convincingly that gigantic administrations, populations, and technical machinery are not *necessary* as a basis for reaching fundamental human goals and purposes.

All these trends were of importance when the new emphasis on ecology made itself felt in the 1960s. The general prehistory of the deep ecology movement has yet to be written. There is no easy way to establish the roots of a movement, and the identity of the movement itself will always be questionable. The terminology will undergo variation. In any case, much remains to be done to make conscious which forces are operating.

The basically positive function of the ecological crisis is to renew a general concern for what human life is about. What are we here for? To spoil the planet? Why should we do that? Are there any fundamental purposes that make it necessary to endanger the richness and diversity of life? Must we have such a large population of human beings? The so-called shallow or reform ecology movement does not place such questions at the center of our attention. Its adherents do not do that partly because they think the ecological disturbances are few, fairly well known, and capable of elimination by clever management of resources. They also take this approach because they do not combine concern for the Earth with a deeply critical evaluation of the dominant trends in the rich countries. For example, the shallow movement fails to critically evaluate the persistent trend of economic growth and the persistent trend to look at less materially rich countries as "developing" toward the way of life of the rich, as if that would be an unquestionable good. In the deep argumentation pattern, all this is questioned.



## Antifascist Character of the Eight Points of the Deep Ecology Movement

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The word *fascist* is sometimes used today rather loosely to suggest cruel behavior by a power elite, or a group seemingly intent on establishing such as elite. In what follows I use the word more in the context of fascism as a historical phenomenon. Benito Mussolini was the first to use the term, and his regime was the first fascist regime. However, the national socialism of Adolf Hitler is the best-known fascist ideology.

The central ideological tenets of fascism may be formulated as follows: The strong have always prevailed over the weak and deserve to prevail over the weak. Join the strong! Human destiny and guidelines in the life of the individual are shaped by the state or nation-state, and through racial characteristics. The implementation of policies must be in the hands of the state and is secured through the genius of the leader, who may use ruthless and violent means. The slogan "Freedom, equity, and brotherhood" is unacceptable. There is no brotherhood among races, no equity between leaders and followers. Slogans such as "To believe, to obey, to combat!" are acceptable. In the fight against an opposition, state terror is acceptable.

There are regimes today that deserve to be called fascist and groups with fascist leanings. In many European countries millions still suffer because of the torture, maltreatment, and deprivations they or their nearest experienced under fascist tyrannies, and there is little chance that they will ever completely recover. The adjective *fascist* is therefore rarely used in current political debates except to attack self-proclaimed fascist sympathizers. The reactions were milder in countries that were not directly harmed by fascist forces. There the word is often used very loosely, as a word with

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vague but strong negative meanings. In the United States, the expression "environmental fascism" is rarely used, but when it is it naturally awakens the readers' attention.

It has never been intimated that the deep ecology movement has fascist tendencies in any strict, historical sense of the word. In the broader and wider, popular sense of "fascism," though, some have warned about possible "fascist" application of the views as they are expressed by deep ecology theorists, and readers ask for clarification.

Fascism values certain collectives higher than the individual (except the Leader): the Nation, the Race, the Party. Although not peculiar to fascism, this view regarding collectives is taken to its extreme by fascists. Some supporters of the deep ecology movement seem to attribute supreme value to an ecosystem, a kind of collective, or to every species. Species are also collectives of sorts, with a vague term, *wholism*, applied to them. Some say that they feel "like a leaf on the tree of life." This borders on forms of nature mysticism. Philosophers have described the "oceanic feeling," the feeling of being a drop in a vast ocean. The drop vanishes completely as an independent entity; however, there is no struggle between the drops, no races, no enemies. The image "oceanic feeling" has a very long history but has scarcely ever been used in military pep talks. The fascist collectives do not have much in common with the ocean. Moreover, many supporters of the deep ecology movement only emphasize close interrelationships, not wholism.

Clarification may start with inspecting general formulations that many supporters find acceptable, for example, the Eight Points.

The Eight Points of the deep ecology movement as formulated in Devall and Sessions (1985: 71) are, of course, open to slightly different interpretations. Point 1 makes use of the expression "life-forms." Some supporters feel strongly, as I do, that intrinsic (or inherent) value attaches to all individual living beings. (It is for me a question of intuition and feeling as much as a question of logic.) The formulation of point 1 that suits me best would, therefore, start with "Every living being . . ." or "All living beings. . . ." It cannot, however, be interpreted as synonymous with "All living beings and *only* individual living beings. . . ." Therefore, it leaves open the question of whether species of other collectives have, or can have, intrinsic value. Actually, many supporters attach intrinsic value to species.

The expression “every life-form” may be interpreted as synonymous with “every individual living being and every species.” What is, or should be, excluded is an interpretation of “every life-form” as synonymous with “every *species* (not every individual living being).”

Representatives of the *science* of ecology have often remarked that supporters of the deep ecology movement underestimate species. Without a species of blue whales, there are no individual blue whales. The threat of extinction of the species is overwhelmingly more important than the threat that a definite individual blue whale faces. Nevertheless, the question of relative importance is not the same as the question of intrinsic value.

The remote possibility of dictatorship in favor of the human species, or of every species, but negation of the intrinsic value of individuals is clearly unacceptable.

When fascist thinkers touch upon the driving forces in evolution, there is a tendency to focus on brutality and cut-throat competition and, of course, an emphasis on the evolutionary value of the stronger eradicating the weaker. Among deep ecology people, the point of view of Peter Kropotkin (1955)—“mutual aid” as an advantage in evolutionary potential—is taken seriously, and so is the general view of Stephan Lackner in his encouraging book *Peaceable Nature* (1984): “Violence causes only 5 percent of death.” This is perhaps too rosy a view, but it deserves close study.

According to point 1, there is a value that is the same for every human being, namely intrinsic value. This is squarely an *antifascist* position. It is incompatible with fascist racism and fascist nationalism, and also with the special ethical status accorded the (supreme) Leader.

How does Green political theory relate to theories of (ethical) *justice*? One may say that they assume or at least presume a conception of justice as fairness, but, of course, they do not find themselves bound to adopt a notion of fairness such as that elaborated by John Rawls (1971) in his careful and influential work on justice. It is, for example, natural within the deep ecology movement to attribute meaning to norms about fairness toward animals. Laboratory mammals are often treated unfairly—the intelligent, “the bright” treated better than the less intelligent, “the dull” ones; the beautiful better than the ugly—and what about distribution of “primary goods”? It is accepted that monkeys may be *made use of* by scientists in ways completely unacceptable if applied to human beings. Yet, those who daily take

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care of a group of monkeys in a laboratory are expected to distribute available primary and other goods fairly: fair distribution of food and time in playing with them. From point 1, no list of special human rights can be inferred. The points are, it might be useful to repeat, primarily concerned with the specific character of the deep ecology movement *within* the context of the general ecology movement. The acceptance or nonacceptance of a definite list of human rights obviously not accorded to nonhuman beings is *a question of ecosophy*, the total view of a supporter of the deep ecology movement. Theoretically, it is compatible with the Eight Points to be, like Gandhi, skeptical about special human rights. According to Gandhi, human beings have *obligations*, not rights. When he explained what he meant in practice, though, it turned out that we have obligations to behave toward human beings *in accordance with* the doctrines of human (special) rights.

In ecosophical literature there is no sign that supporters of the deep ecology movement reject the list of human rights. On the whole, those writers have not expected that there would be any question of whether they would or would not.

It has been suggested that radical environmentalism, if it gained supreme political power, would perhaps make human interests and human rights subordinate to the well-being of ecosystems. In the 1960s and even in the 1970s, some supporters of deep ecology had a near cultish respect for "mature ecosystems," but since the 1980s the reification of ecosystems has lost scientific ecological credibility. There is recognition of a much higher degree of "chaos," more instability, more complexity in changes. For me to regulate my decisions according to a maxim that a good decision is a decision that is beneficial to the special ecosystem in which I make the decision, is strange and ethically objectionable. A party that tries to develop a cult of ecosystems, or that tries to identify ethics with environmental ethics, cannot be expected to win elections or gain through revolution. Of the hundreds of cares people have, none seems to be connected with the rather abstract doctrine of life and death of ecosystems. They may learn about vast and important relationships. If they depend on fish from the Barents Sea, they learn that the population of fish they buy depends upon the population of other species and upon the policies adopted, that is, upon the necessary restrictions and solutions of international conflicts related to them: ecosystemic knowledge. They may support ecologically responsible

policies, but they may not believe in the intrinsic value of the system. Ecosophies are total views in part inspired by the crisis, but even if people accept an ecosophy, the part played by ecological consideration will be very small. I don't think we should wish it to be otherwise.

By attributing intrinsic value to nonhuman beings, deep ecology supporters may be said to accept a widened Kantian maxim: no living being should be treated *merely* as a means. The wideness of the application of the predicate *living* is, of course, open to different proposals. It is, for example, not necessary to include the HIV virus.

Applying point 1 to human beings, I derive, as already mentioned, the formulation "Every single human being has intrinsic (inherent) value (worth)." I hesitate, though, to derive "Every single human being is worthy of *respect*." I hesitate because, for example, I would not say I *respect* a torturer. It is meaningful for me to say that I can do something for a torturer, something for his own sake. As a matter of course I offered a torturer tea when he was being interrogated. After a long interrogation, he asked whether I could help him get shot immediately instead of being kept in solitary confinement for a long time. I did not have the power to make the authorities shoot him immediately as he requested, but perhaps I would have asked them had I had the power. A human being should be treated according to certain standards even if he has been a torturer. There are strict rules as to how to behave toward a prisoner, whatever his crime. He remains a fellow human being. *Special obligations* are due to one's fellow human beings.

When people accused of torture were imprisoned in 1945, they were visited by people from the Resistance and especially by Christian priests. These visits did not indicate any softness in regard to the dreadful character of the prisoners' *deeds*. Sometimes the terrible character of what they had done made the visitors look upon them as the most *miserable* beings on Earth. People may be classed in regard to valuableness for the community or for innumerable other purposes. Point 1 does not concern instrumental value, nor the question of whether there are different sorts of inherent value. What about gradation, though?

Point 1 does not *imply* any notion of quantification or gradation of intrinsic value. It does not imply *equity* as opposed to "more or less." Nor does it *imply* the absence of gradation.

Some supporters introduce gradation: human beings have more or

higher intrinsic value than other living beings. Mammals have higher intrinsic value than insects. It is difficult to avoid rather complex systems of gradation. The more they are intellectually elaborated, the farther they recede from the more or less intuitive basis that I have for attributing the same value, the intrinsic value, to every living being.

Instead of grading intrinsic value, some of us grade obligations—abysmal differences of obligations! In the case of obligations as well, a *complex* system of strong and weak obligations lacks a clear intuitive basis. One cannot expect intercultural consensus. As I see it (that is, according to Ecosophy T), human beings have more and very much stricter (ethical) obligations toward human beings than toward nonhuman beings. Parents have more and stricter obligations toward their own children than toward other people's children. Geography and access come in as well: nearness and ease of reach are factors. The intrinsic value of children is one and the same. That children die of hunger is unacceptable, whatever the geographical distance. In other words, there is an ethical obligation to support measures to eliminate the phenomenon. The same applies to the systematic torture perpetuated in many countries.

From the fact that supporters of the deep ecology movement are supposed to be motivated (in part) by their philosophical or religious beliefs, it does not follow that their decisions are *determined* by the Eight Points. The decisions should be consonant with their *ecosophy*, their total view, something immensely broader than the Eight Points, although it may include the Eight Points. At North-South conferences it sometimes happens that people from the Third World imagine that the Eight Points are meant to give an adequate basis for their decisions. Rightly, they object that ecological problems cannot and should not have the highest priority in their countries. If being a supporter of the deep ecology movement implies having such a preposterous view, nobody in the Third World could possibly be a supporter—nor should anybody anywhere interpret the Eight Points that way. They focus on some differences between the outlook of a certain group of *activists* within the general ecological movement and the rest—and the Eight Points concern matters relevant to overcoming the ecological *crisis* largely caused by the rich nations, which have the duty to clean up. So much about point 1, and the relation between the Eight Points and their antifascist, pro-Third World character.

In any movement that promotes serious changes affecting all aspects of society, one should be on the outlook for supporters who might ask for dictatorial or authoritarian measures. None of the theorists of deep ecology show any such tendencies. Moreover, nobody who strives to be a dictator is likely to profit from letting every human being be treated as having the same inherent value. Nevertheless, many supporters warn us: the longer we wait before responsible ecological policies are adopted, the more likely there may develop catastrophes that prepare the ground for undemocratic measures.

Point 2 announces the intrinsic value of richness and diversity of life-forms. In the formulation of this point in Devall and Sessions (1985), the diversity of human cultures is not mentioned. More recent versions announce that such diversity should be included under the heading "diversity of life-forms" and thereby accorded intrinsic value. That is, the addition should not necessarily be included in the formulation of point 2 but in the "first-order comments."

By first-order comments I mean precisizations: specifications and elaborations that are clearly needed to ensure that the "point of departure" eight-point formulations are interpreted as intended. Such comments ought not, I think, to comprise more than about four hundred words, double the number of words in the Eight Points. The second-order comments may use twice as many words again, that is, eight hundred words. I mention this to emphasize that if we assume that the eight-point formulations are read by people with greatly different backgrounds and emotional attitudes toward questions raised by the deep ecology movement, one must expect to talk at length to convey the intended meaning of the formulations. Moreover, this discussion may give, and has given, good suggestions for how to improve the formulation of the Eight Points, or how to work with completely different sets of formulations.

Intrinsic value has an important limitation: some cultures have as a basic feature an intolerance toward others. This intolerance and discrimination is characteristic of fascist ideology. The democratic political culture has regularly been the object of hateful and derisive criticism.

One fairly obvious and easily made change in the formulations is the following. In point 8 these words may be added: "by peaceful and democratic means." Some have objected to the use of the term *democratic* because

of the obvious imperfections of contemporary democracies. I think, though, that the term can be saved from being completely identified in meaning with contemporary democracies. Point 8 then might read: "Those who subscribe to the foregoing points have an obligation directly or indirectly to try to contribute to the implementation of the necessary changes by peaceful and nonviolent means."

In regard to nonviolence, as contrasted with the fascist masculine pugnacity, supporters of the deep ecology movement are criticized because they do not answer strong attacks. They are often called meek and pacifist. Thus, when Murray Bookchin (1980) started somewhat wild and immoderate attacks on deep ecology, there were no corresponding counterattacks. The attacks did not elicit polemics *between* the two camps, the social ecologists and the supporters of the deep ecology movement. On the whole, the latter only continued to *explain* what they stood for. Even in the published debate between Bookchin and the "wildly radical" supporter of the deep ecology movement Dave Foreman (Bookchin, Foreman, and Chase 1991), there is a characteristic mildness in the latter's formulations. "The best defense is the attack" is not always good advice. One should, of course, attack, using Gandhian rules of verbal communication; that is, one should carefully formulate counterarguments against the views of the attacker, not only defend one's own. As regards the relation of the two movements, the social ecology and the deep ecology, it is obvious that one may support both. The latter is broader, more diffuse, *some* will say.

Some critics do not believe in the danger of fascist tendencies in the deep ecology movement. They do not see any possibility that *authoritarian* policies could be established if the supporters became powerful—for example, that the supporters of the shallow or reform movement might be suppressed, even put in prison. Even today, the peaceful collaboration of the two parts of the general movement is a necessity. Most of the many hundreds of professionals involved in the questions relating to climatic changes are, as far as I know, fairly uninterested in ultimate premises. The supporters have no chance to "take over" the climate studies, either now or in a future when (hopefully), thanks to all activists in the *general* ecology movement, the ecological crisis has been overcome.

The 1980s and early 1990s saw a series of valuable contributions to so-called *Green* political theory as something different from mere *green* politi-



cal theory.<sup>1</sup> A few examples are Hazel Henderson's *Politics of the Solar Age* (1981), Fritjof Capra and Charlene Spretnak's *Green Politics* (1984), Jonathan Porritt's *Seeing Green: The Politics of Ecology Explained* (1984), John Dryzek's *Rational Ecology: Environment and Political Ecology* (1987), Robert C. Pauhlke's *Environmentalism and the Future of Progressive Politics* (1989), Andrew Dobson's *Green Political Thought* (1990), Robyn Eckersley's *Environmentalism and Political Theory: Toward an Ecocentric Approach* (1992), and Robert Goodin's *Green Political Theory* (1992). Do these authors display fascist tendencies? No. Threats against the vital rights of human beings? No.

I agree with those who think that there is too much talk about the Eight Points. It is a sign of imperfect clarity about what deep ecology is all about. The situation makes it necessary to repeat over and over again some points that unite the great diversity of people who *feel* that they strongly agree with lots of the things that are said and done with reference to "deep ecology." To bring the Eight Points into the discussion may be helpful and convenient, but, of course, they do not furnish an adequate picture of the movement.

## II

### VALUES, LIFESTYLE, AND SUSTAINABILITY

## Deep Ecology and Lifestyle

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It is perfectly meaningful to talk about the lifestyle characteristic of the deep ecology movement. One must only avoid thinking that it is, or should be, a definite, definable, fully coherent way of life, clearly different from all others.

The deep ecology movement includes a great number of definite, more or less easily definable *tendencies* and *attitudes* that show themselves in action. Some supporters of the movement seem to reveal many of the attitudes, and no tendencies that are in blatant opposition. One should not, however, look for "complete consistency," whatever that might mean. It would be practically impossible to formulate criteria for a consistent deep ecological lifestyle. Every formulation would have to be vague and highly dependent on terminological idiosyncrasies.

It is agreed that it is important to clarify ecological consciousness. There is, however, always the danger that consciousness only fragmentarily colors action. In Kierkegaard's words, a philosopher may build a castle but himself *live* in its doghouse.

I have found it most fruitful simply to list tendencies and attitudes characteristic of the deep ecology movement. I have focused on Scandinavia and have freely indulged my own terminological preferences. The order here adopted is not intended to reveal differences of importance, nor does it worry me that some items are overlapping, or that many are related as genus to species, or as family to genus.

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#### VALUES, LIFESTYLE, AND SUSTAINABILITY

1. Use of simple means. Avoidance of unnecessary, complicated instruments and other sorts of means.
2. Choice of activities most directly serving values in themselves and having intrinsic value. Avoidance of activities that are merely auxiliary, having no intrinsic value or being many stages away from fundamental goals.
3. Anticonsumerism. This negative attitude follows from (1) and (2).
4. Effort to maintain and increase the sensitivity and appreciation of goods of which there is enough for all to enjoy.
5. Absence or low degree of *novophili*—the love of what is new merely because it is new.
6. Effort to dwell in situations of intrinsic value and to act rather than be busy.
7. Appreciation of ethnic and cultural differences among people, not regarding such differences as threats.
8. Concern about the situation of the Third and Fourth worlds and attempt to avoid a standard of living too much different from and higher than that of the needy (global solidarity of lifestyle).
9. Appreciation of lifestyles that are universalizable and are not blatantly impossible to sustain without injustice toward fellow human beings or other species.
10. Preference for depth and richness of experience rather than intensity.
11. Appreciation for and, when possible, choice of meaningful work rather than just making a living.
12. Effort to lead a complex, not a complicated life, trying to realize as many aspects of positive experiences as possible within each time interval.
13. Cultivation of life in community (*Gemeinschaft*) rather than in society (*Gesellschaft*).
14. Appreciation of or participation in primary production—small-scale agriculture, forestry, fishing.
15. Effort to satisfy vital needs rather than desires.

There are also tendencies more obviously reflecting the specific tenets of the deep ecology movement:

16. Attempts to live in nature rather than just visiting beautiful places. Avoidance of tourism (but occasionally making use of tourist facilities).
17. Living "light and traceless" when in vulnerable nature.
18. Tendency to appreciate all life-forms rather than merely those considered beautiful, remarkable, or narrowly useful.
19. Rejection of the use of life-forms merely as means. Consciousness of their intrinsic value and dignity even when using them as resources.
20. In conflicts between the interests of dogs and cats (and other pets) and wild species, a tendency to protect the latter.
21. Effort to protect local ecosystems, not just individual life-forms. Seeing one's own community as a part of ecosystems.
22. Objection to excessive interference in nature as unnecessary, unreasonable, and disrespectful. Condemnation of such interference—without condemning the people responsible for the interference—as insolent, atrocious, outrageous, and criminal.
23. Commitment to acting resolutely and without cowardice in conflicts while remaining nonviolent in words and deeds.
24. Participation in or support of nonviolent direct action when other ways of action fail.
25. Kinds and degrees of vegetarianism.

There are many publicly available sources for the study of deep ecological lifestyles, such as naturalists' and alternative lifestyle periodicals. In Norway the periodical published by *The Future in Our Hands* deals extensively with the problems of youth who seek to form new lifestyle circles of friends. Perhaps more important is the direct contact with people achieved in direct actions.

In recent years the practical possibilities of a highly developed deep ecological lifestyle have been reduced in Europe by economic policies that ruin small-scale enterprises. There is also a dominant tendency to standardize and regulate education and conditions of work. In short, the structuring of society is more detailed, leaving less room for subcultural independence. On the other hand, the reaction against this trend is strong. It would have a greater impact if those who support the deep ecology movement were more

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active politically. There seems to be a twenty-sixth tendency, however: to find politics boring or distasteful.

In the 1970s when the movement was new and exciting, there was a tendency to be dogmatic: One *should* use bicycles; one *should not* go by air. Bears under no circumstances ought to be shot. Hunting, even for ecological reasons, should be avoided. One should not visit nonindustrial cultures because it would tend to weaken them. One should avoid every sport requiring mechanical means. Agriculture ought to be biodynamic; no poisons should be used. The list could go on. Today there is more wisdom, fewer rigid rules, and the old Indian prayer is taken more seriously: "Great Spirit, grant that I may not criticize my neighbor until I have walked a mile in his moccasins."

## The Place of Joy in a World of Fact

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The solution of environmental problems is presupposed in all utopias. For example, every family is to enjoy free nature under Marxian communism. "In a communist society," Marx says in a famous passage in *The German Ideology* (1970), "nobody has one exclusive sphere of activity but each can be accomplished in any branch he wishes. Society regulates the general production and thus makes it possible for me to do one thing today and another tomorrow: to hunt in the morning, fish in the afternoon, tend cattle in the evening, engage in literary criticism after dinner, just as I have in mind, without ever becoming a hunter, fisherman, shepherd, or critic."

The complete individual is not a specialist; he is a generalist and an amateur. This does not mean that he has no special interests, that he never works hard, that he does not partake in the life of the community. He does so, however, from personal inclination, with joy, and within the framework of his value priorities.

In the future ideal society, whether outlined by Marx or by more bourgeois prophets, there will be people who might use most of their energy doing highly specialized, difficult things, but as amateurs—that is, from inclination and from a mature philosophy of life. There will be no fragmentary men and women, and certainly no fragmentary ecologists.

We all, I suppose, admire the pioneers who, through endless meetings held in contaminated city air, have succeeded in establishing wilderness ar-

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eas in the United States. Unfortunately, their constant work in offices and corridors has largely ruined their capacity to enjoy these wilderness areas. They have lost the capacity to show, *in action*, what they care for; otherwise, they would spend much more time (and even live) in the wilderness. Many people verbally admire wilderness areas, but they have not stepped down from their exalted positions, as chairmen of this or that, to enjoy these areas at least part of the year.

What I say here about advocates of wilderness seems, unhappily, to be valid for advocates of a better environment in general. Ordinary people show a good deal of skepticism toward verbally declared values that are not expressed in the lifestyle of the propagandist. Environmentalists sometimes succumb to a joyless life that belies their concern for a better environment. This cult of dissatisfaction is apt to add to the already fairly advanced joylessness we find among socially responsible, successful people, and to undermine one of the chief presuppositions of the ecological movement: that joy is related to the environment, and to nature.

In short, the best way to promote a good cause is to provide a good example. One ought not be afraid that the example will go unnoticed. For example, Albert Schweitzer hid himself in Africa, but his public relations prospered and so did the sale of his books.

So much for utopias. My next concern is with how to get nearer to our utopias. I shall take up only one aspect: the relation between personal lifestyle and teaching.

### The Lifestyle of Environmentalists

Joy is contagious. If we only talk about the joys of a good environment, though, it is of little avail.

I know that many *have* turned their backs on more lucrative careers and on a life of security cultivating well-established sciences. This is not enough, however. Life should manifest the peaks of our value priorities. Working for a better environment is, after all, only of instrumental value. We remain on the level of techniques. What criterion shall we use to follow the lead of our personal priorities? We do have one that is underrated among conscientious, responsible people: joy.



### Joy According to “Pessimistic” Philosophers

Suppose someone openly adhered to the doctrine that there cannot be too much cheerfulness under any circumstances—even at a funeral. The sad truth is, I think, that he or she would be classified as shallow, cynical, disrespectful, irreligious, or mocking.

Søren Kierkegaard is an important figure here. He *seems* to take anguish, desperation, a sense of guilt, and suffering as the necessary, and sometimes even sufficient, condition of authentic living, but he also insists upon continuous joy as a condition of living. Whatever is done without joy is of no avail. “At seventy thousand fathoms depth,” you should be glad. At seventy thousand fathoms, one should retain “a joyful mind.” He sometimes calls himself Hilarius, the one permeated with *bilaritas* (the Latin word for cheerfulness).

*Dread* is the technical existentialist word for the kind of anxiety that opens the way to a deeper understanding of life. According to Heidegger (another hero of modern pessimism), dread is not an isolated sensation of a negative kind. The mind is in a complex state in which dread cannot exist without joy; that is, one who thinks he has the dread experience but lacks joy, suffers from an illusion. Dread has an internal relation to joy.

Our problem is not that we lack high levels of integration (that is, that we are immature and therefore joyless) but rather that we glorify immaturity. Do the most influential philosophers of our time and culture represent high degrees of maturity and integration? I have in mind not only Heidegger, Sartre, Kierkegaard, and Wittgenstein, but also Marx and Nietzsche. Tentatively, I must answer no. There are lesser known but perhaps more mature philosophers, like Jaspers and Whitehead.

Should the world’s misery and the approaching ecocatastrophe make one sad? My point is that there is no good reason to feel sad about all this. According to the philosophies I am defending, such regret is a sign of immaturity; the immaturity of unconquered passiveness and lack of integration.

The remedy (or psychotherapy) against sadness caused by the world’s misery is to do something about it. I shall refrain from mentioning Florence Nightingale, but let me note that Gandhi loved to care for, wash, and massage lepers; he simply enjoyed it. It is very common to find those who

constantly deal with extreme misery to be more than usually cheerful. According to Spinoza, the power of an individual is infinitely small compared with that of the entire universe, so we must not expect to save the whole world. The main point—which is built into the basic conceptual framework of Spinoza's philosophy—is that of activeness. By interacting with extreme misery, one gains cheerfulness. This interaction need not be direct. Most of us can do more in indirect ways by using our privileged positions in rich societies.

There are clear reasons for us not to concentrate all our efforts directly on extreme miseries, but rather to attack the causes, conditions, and factors indirectly contributing to this misery and, just as important, to encourage the factors that directly cause or facilitate the emergence of active (and therefore cheerful) work to alleviate misery.

Behind the prevailing widespread passivity found throughout the world is a lot of despair and pessimism concerning our capacity to have a good time. We tend to enjoy ourselves (except during vacations) in a private world of thoughtlessness, well insulated from the great issues of the day.

One of the strangest and next-to-paradoxical theses of Spinoza (and of Thomas Aquinas and others) is that knowledge of evil, or of misery, is inadequate knowledge. In short, there is no such object, whereas there is something good to know. Evil is always an absence of something, a lack of something positive. Their theory of knowledge holds that objects of knowledge are always something. When you say that you see that the glass is transparent, what you see, for example, is a red rose behind the glass. You do not see the transparency, which is not an object of perception.

In any event, while I do not think that the positive nonexistence of evil things can be shown without a great deal of redefinition of words, I nevertheless do not consider this view totally ridiculous. Like so many other strange points of view in major philosophies, it has an appeal and points in the right direction without perhaps stating anything clearly in the "scientific" sense.

### Spinoza on Joy

Spinoza operates with three main concepts of joy and three of sorrow. *Laetitia*, *bilaritas*, and *titillatio* are the three Latin terms for the positive emo-

tions of joy. Translations of these terms are, to a surprising degree, arbitrary, because their function in Spinoza's system can be discovered only by studying the complex total structure of his system. Isolating one concept from the others is not possible. Moreover, the system is more than the sum of its parts. From a strict, professional point of view, you must take it or leave it as a whole.

I translate *laetitia* as "joy"—a generic term comprising several important subkinds of joy. The main classification of joy is into *bilaritas* (cheerfulness) and *titillatio* (pleasurable excitement). *Hilaritas* is the serene thing, coloring the whole personality, or better, the whole world.

Spinoza defines *bilaritas* (cheerfulness) as a joy to which every part of the body contributes. It does not affect just a subgroup of functions of the organism, but each and every one, and therefore the totality of the organism. Spinoza contends that there cannot be too much of *bilaritas*.

The other main kind of joy, *titillatio*, affects a subgroup of the parts of the body. If very narrowly based and strong, it dominates and thereby inhibits the other kinds of joy. Accordingly, there can be too much of it. Here Spinoza mentions love of money, sexual infatuation, and ambition. He also mentions other sources of joy that are all good in moderate degrees if they do not hamper and inhibit one another.

A second classification of joy is that derived from contemplation of our own achievement, creativity, or—more broadly—activeness, and the joy derived from contemplation of causes of joy outside of us. The first he calls satisfaction, or repose in ourselves (*acquiescentia in se ipso*); the other he calls *amor*. There can be too much of them, however, because they sometimes refer to parts, not to the whole.

According to Spinoza, what refers to the whole of the body also refers to the whole of the conscious mind, and to the whole of the universe or, more generally, to the whole of Nature, insofar as we know it. This is understandable from Spinoza's so-called philosophy of identity, which proclaims the ultimate identity of thought and matter, and from his theory of knowledge, which relates all our knowledge of the world to interaction with the body—just as biologists tend to do today.

Lack of self-acceptance (*acquiescentia in se ipso*) accounts for much of the passivity displayed by an important sector of the public in environmental conflicts. Many people are on the right side, but few stand up in public

meetings and state how they, as private citizens, feel about the pollution in their neighborhoods. They do not have sufficient self-respect, respect for their own feelings, and faith in their own importance. They themselves do not have to fight for the changes; it is only necessary that they state their feelings and positions in public. A small minority will then fight with joy—supported by that considerable sector of people.

The distinction between pervasive joy (covering all) and partial joy need not be considered an absolute dichotomy but rather exists in degrees. Joy may be more or less pervasive. Clearly, higher degrees of joy require high degrees of integration of the personality, and high degrees of such integration require intense cultivation of the personal aspect of interaction with the environment. It requires a firm grasp of what we call value priorities—which Spinoza would call reality priorities, because of his resolute location of value among “objective” realities. Spinoza distinguishes degrees of realness and perfection. That which is perfect is complete. Integration of personality presupposes that we never act as mere functionaries or specialists but always as whole personalities conscious of our value priorities, and of the need to manifest those priorities in social direct action.

The specific thing to be learned from Spinoza and certain modern psychologists is, however, to integrate the value priorities themselves in the world. We tend to say “the world of facts,” but the separation of value from facts is, itself, mainly due to an overestimation of certain scientific traditions stemming from Galileo, traditions that confuse the *instrumental* excellence of the mechanistic worldview with its properties as a whole philosophy. Spinoza was heavily influenced by mechanical models of matter, but he did not extend them to cover “reality.” His reality was neither mechanical, value-neutral, nor value-empty.

This cleavage into two worlds—the world of fact and the world of values—can theoretically be overcome by placing, as Spinoza does, joys and other so-called subjective phenomena into a unified total field of realities. This, however, is too much to go into here. I am more concerned with the place of joy among our total experiences. The objectivist conception of value is important, though, in any discussion in which technocrats tend to dismiss cheerfulness in the environment as something “merely subjective.”

Spinoza makes use of the following short, crisp, and paradoxical definition of joy (*laetitia*): "Joy is man's transition from lesser to greater perfection." Somewhat less categorically, he sometimes says that joy is the affect by which, or through which, we make the transition to greater perfection. Instead of "perfection" we may say "integrity" or "wholeness."

Of central importance, in my view, is the difference between these formulations and subjectivistic ones proclaiming that joy only *follows* or *accompanies* these transitions to greater perfection. For Spinoza the relation between joy and an increase in perfection is an *intrinsic* one. That is, the two can be separated only conceptually, not in practice. Such a realistic view of joy suggests that joyfulness, like color, attaches to and forms part of objects, but of course changes with the medium, and must be defined in terms of interaction with organisms. Joy is linked intrinsically to an increase in perfection, an increase in power and virtue, an increase in freedom and rationality, an increase of activeness, an increase in the degree to which we are the cause of our own actions, and an increase in the degree to which our actions are understandable by reference to ourselves. Joy is thus a basic part of the conceptual structure of Spinoza's system.

An increase in power is an increase in the ability to carry out what we sincerely strive to do. Power does not presuppose that we coerce other people; a tyrant may be less powerful than some poor soul sitting in prison. This concept of power has a long tradition and should not be forgotten. What we strive to do is defined in relation to what actually happens; thus "to save the world from pollution" is not something anyone strives to do, but is rather a kind of limited effort to save the things around us.

Cheerfulness (*bilaritas*) requires action of the whole integrated personality and is linked to a great increase in power. In the absence of joy, there is no increase of power, freedom, or self-determination. Thus, lack of joy should be taken seriously, especially among so-called responsible people furthering a good cause. The joy of work, like any other partial joy, can dominate and subdue other sources of joy to such an extent that the overall result is stagnation or even a decrease in power. In Spinoza's terminology, this means a loss of perfection or integration, and increased difficulty in reaching a state of cheerfulness.

"To be happy" is often equated with enjoying oneself, laughing, or

relaxing in the sense of being passive. Enjoying oneself by becoming intoxicated, which decreases the higher integrations of the nervous system, results in resignation. It means giving up the possibility of joyfulness of the whole person. Cheerfulness, in the Spinozistic sense, may not always be expressed in laughter or smiling, but in concentration, presentness, activeness.

The example of Buddha may illustrate my point. Buddha was an active person but had great repose in himself (*acquiescentia in se ipso*). Long before he died he is said to have reached Nirvana, which, properly interpreted within Mahāyāna Buddhism, involves supreme integration and liberation of the personality, implying bliss or (in the terminology of Spinoza) *hilaritas*. Research by F. Th. Stcherbatsky (1974) and others concerning the term *dukkha* (conventionally translated as “pain”) shows that so-called pessimistic Buddhism also has a doctrine of joy as a central aspect of reaching freedom in Nirvana.

One may say, somewhat loosely, that what we now lack in our technological age is repose in oneself. The conditions of modern life prevent the full development of that self-respect and self-esteem that is required to reach a stable high degree of *acquiescentia in se ipso* (the term *alienation*, incidentally, is related to the opposite of *in se*, namely, *in alio*, wherein we repose in something else, something outside ourselves such as achievement in the eyes of others—we are “other directed”).

*Humility*, as defined by Spinoza, is sorrow resulting from contemplation of one's own impotency, weakness, and helplessness. A feeling of sorrow always involves a decrease of perfection, virtue, or freedom. We can come to know adequately more potent things than ourselves. This gives us such joy because of our activeness in the very process of knowing them. The realization of our own potency, and our active relation to the more potent, results in joy. Thus, instead of humility (which is a kind of sorrow) there are three kinds of joy: first, that resulting from the contemplation of our own power, however small, which gives us *acquiescentia in se ipso*, self-respect and contentedness; second, the joy resulting from increased personal, active knowledge of things greater than we are; and third, the joy resulting from active interaction, which, strictly speaking, defines us (as well as other objects or fragments) in the total field of reality (or in Nature, in Spinoza's terminology).

Adequate knowledge always has a joyful personal aspect because it reveals a power (never a weakness) in our personality. In Spinoza's words:

Therefore, if man, when he contemplates himself, perceives some kind of impotency in himself, it does not come from his understanding himself, but from his power of action being reduced. . . . To the extent that man knows himself with true rationality, to that extent it is assumed that he understands his essence, that is, his power.

We say with some haughtiness that Spinoza belongs to the age of rationalism, to the pre-Freudian, pre-Hitler era. Nevertheless, Spinoza in many ways anticipated Freud, and his term *ratio* must not be translated by our term *rational* or *rationality* unless we immediately add that his *ratio* was more flexible and was internally related to emotion. Rational action for him is action involving absolutely maximal perspective—that is, where things are seen as fragments of total Nature—which is, of course, not what we tend to call rational today. Spinoza was not an “intellectual” in the sense of modern Anglo-American social science.

Pity and commiseration (*misericordia* and *commiseratio*) are not virtues for Spinoza, and even less so for Gandhi, although they may have some positive instrumental value. Spinoza says that “commiseration, like shame, although it is not a virtue, is nevertheless good in so far as it shows that a desire for living honestly is present in the man who is possessed with shame, just as pain is called good in so far as it shows that the injured part has not yet putrefied.” A modest function, but nevertheless of instrumental value! Tersely, Spinoza adds that “a man who lives according to the dictates of reason strives as much as possible to prevent himself from being touched by commiseration.” People who are crippled are among those who practically unanimously agree.

Commiseration is sorrow and therefore is, in itself, an evil. According to certain conventional morality, a duty should be carried out even if there is no joy. This might suggest that we had better disregard our duties if we are not permeated with joy. This interpretation seems to me rather fanatical, however, except when one adds a kind of norm concerning the high priority of developing the *capacity* for joy. “Alas! I cannot do my duty today because it does not fill me with joy. Better to escalate my efforts to experience joy!” Spinoza does not stress the remedy to the above situation—

greater integration—but he presupposes it. The case of humility shows how *ratio* changes sorrows to joys: Spinozistic psychoanalysis tries to loosen up the mental cramps that cause unnecessary pain.

Freud worked with the tripartition of id, ego, and superego. The superego, through its main application in explaining neuroses, has a rather ugly reputation: it coerces the poor individual to try the impossible and then lets it experience shame and humility when there is no success. In Spinoza's analysis, the *ratio* also functions as a kind of overseer, but its main function is rather one of consolation. It directs our attention to what we can do rather than what we cannot, and eliminates feelings of necessary separation from others; it stresses the harmony of rational wills, and of well-understood self-interests.

A major virtue of a system like Spinoza's is the extreme consistency and tenacity with which consequences, even the most paradoxical, are drawn from intuitively reasonable principles. It meets the requirements of clarity and logic of modern natural science. The system says to us: "You do not like consequence number 101? But you admit it follows from a premise you had admitted. Then give up the premise. You do not want to give up the premise? Then you must give up the logic, the rules of inference, you used to derive the consequence. You cannot give them up? But then you have to accept the consequence, the conclusion. You don't want to? Well, I suppose you don't want clarity and integration of your views and your personality." The rationality of a total view like Spinoza's is perhaps the only form of rationality capable of breaking down the pseudorational thinking of the conservative technocracy that currently obstructs efforts to think in terms of the total biosphere and its continued blossoming in the near and more remote future.

### The Philosophical Premises of Environmentalism

Personally, I favor the kind of powerful premises represented in Chinese, Indian, Islamic, and Hebrew philosophy, as well as in Western philosophy—namely, those having the so-called ultimate unity of all life as a slogan. They do not hide the fact that big fish eat small ones, but stress the profound interdependence, the functional unity, of such a biospheric magnitude that nonviolence, mutual respect, and feelings of identification are always potentially there, even between the predator and its so-



called victim. In many cultures, identification is not limited merely to other living things but also includes the mineral world, which helps us to conceive of ourselves as genuine surface fragments of our planet, fragments capable of somehow experiencing the existence of all other fragments: a microcosm of the macrocosm.

Another idea, right at the basis of a system from which environmental norms are derivable, is that of self-realization. The mature human individual, with a widened self, acknowledges a right to self-realization that is universal, and seeks a social order, or rather a biospherical order, that maximizes the potential for self-realization of all kinds of beings.

Levelheaded, tough-minded environmentalists sometimes stress that it is sheer hypocrisy to pretend that we try to protect nature for its own sake. In reality, they say, we always have the needs of human beings in view. This is false, I think. Thousands of supporters of unpolluted so-called wastelands in northern Labrador wish simply that those lands should continue to exist as they are, for their own sake. They are of intrinsic, and not only instrumental, value. To invoke *specifically* human needs to describe this situation is misleading, just as it is misleading to say that it is egotistical to share one's birthday cake with others because one *likes* to share with others.

Self-realization is not a maximal realization of the coercive powers of the ego. The "self" in the kinds of philosophy I am alluding to is something expansive, and the environmental crisis may turn out to be of immense value for the further expansion of human consciousness.

In modern education the difference between a world picture—or better, a world model—and a straightforward description of the world is slurred over. Atoms, particles, and wave functions are presented as parts or fragments of nature, even as *the* real, objective nature, as contrasted with human projections into nature—the "colorful" but subjective nature.

So-called physical reality, in terms of modern science, is perhaps only a piece of abstract mathematical reality—a reality we emphatically do not live in. Our living environment is made up of all the colorful, odor-filled, ugly or beautiful details, and it is sheer folly to look for an existing thing without color, odor, or some other homely quality. The significance of this subject is a broad cultural one: the rehabilitation of the status of the immediately experienced world, the colorful and joyful world. *Where* is joy in the world of fact? Right at the center!

## Beautiful Action: Its Function in the Ecological Crisis

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We have, most of us, a stupid reluctance to learn from philosophers who belong to “trends” or “schools” that we find lead us astray. For me, the so-called critical philosophy of Kant and Kantians belongs to such a set of trends. I say *so-called* critical. Most trend-setting philosophers have been fiercely critical of other trends, but only Kant has been fortunate enough to influence historians in the last century to such an amazing degree that in their surveys they call Kant’s philosophy critical and Spinoza’s dogmatic. This is a rather arbitrary distinction. Already in the introduction to his *Critique of Pure Reason* (1963) Kant makes assumptions with far-reaching consequences without any attempt to justify them. They may well be said to be “uncritical” and “dogmatic,” at least for some plausible and important interpretations of these terms. Both Spinoza and Kant were firm believers in fundamental ideas that they do not justify in their writings. To compare their levels of criticalness in a timeless, absolute sense presupposes that one has a third system that must be accepted uncritically. Or perhaps we don’t need that? Who knows?

In spite of Kant’s—in my opinion unfortunate—influence, in some ways his works are and will continue to be a major source of inspiration. In what follows I borrow his distinction between moral and beautiful actions. I foresee a bright future for this terminology. It offers a fairly new perspective on our actions within the realm of radical environmentalism, or more specifically within the deep ecology movement.

The distinction was introduced by Kant in a work published in 1759,

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*Versuch einiger Betrachtungen über den Optimismus* (An attempt at some reflections on optimism), written in the period that uncritically is called his uncritical period. The distinction has been neglected by historians.

According to the terminology of 1759 an act deserves the name *moral act* if it is solely motivated by respect for the moral law: you do it simply because it is your duty; there is no other motive. Presumably a factual mistake would not spoil the beauty of an action—if you have done your duty *trying* to find out the facts of the case.

Suppose you do your duty—you perform the action that the moral law prescribes—but not *just* because of respect for the moral law. You perform the act because you are inclined to act like that, or at least partly because you have the inclination. It “feels natural” to do it. In that case Kant calls the act *beautiful*. It is a moral not an immoral act. An immoral act is one that conflicts with the moral law. The beautiful act is in Kant’s view a morally complete act because it is benevolent. Benevolent action expands our love to embrace the whole of life. It completes us and perfects us (Kant 1992: 78ff.).

It is not Kant’s habit in his main works to offer examples, but in his *Groundwork of the Metaphysics of Morals* (1949) he offers an interesting one. It is one’s duty, he says, to strive to keep alive, and there is a spontaneous inclination to do that. If you act more or less from the inclination to stay alive, the actions are not morally significant. Kant then paints a picture of a thoroughly unhappy human being who consistently desires to die but continues to try to stay alive, motivated solely by duty. This person acts in a morally right way according to Kant. Today, many people do not think it is always a duty to try to stay alive. In special cases, yes, notably because of the unhappiness or destitution of one’s own children and spouse. The temptation to follow inclination and make an end is resisted solely because one conceives it a duty to continue. Here the term *beautiful act* seems to me to be appropriate. One may in a philosophical seminar differ about the exact relation between respect for the moral law, respect for a moral duty, and respect for a duty, but the conclusions and proposals in what follows do not seem to be gravely affected by this outcome.

Presumably Kant would not deny that it may make people glad when they do their duty. The inclination may not be there, they may find it

painful or even cruel, as in a war, to do it, but they are glad *that* they resist the temptation *not* to do it. There is a conflict, a situation involving stress, we might say today. When we act beautifully no conflict of feelings is involved. It is above all characteristic of beautiful acts “that they display facility and appear to be accomplished without painful toil.” Incidentally, Kant entertained the opinion that women, more often than men, act beautifully, from compassion and goodheartedness. Men’s morality has the form of nobility, not beauty, but nobility is “extremely rare.”

So much for the Kantian distinction itself. I now turn to its application in countries manifesting an increase of ecological unsustainability and large-scale destruction of the habitats of other living beings.

The individuals and institutions trying to influence ecologically highly relevant actions in the right direction manifest roughly three different strategies: appeal to the *usefulness* of ecologically positive actions, emphasis on *moral obligations*, and inducement to develop certain attitudes—*inclinations* in Kantian terminology.

Recently there has been in Norway and other countries an upsurge of interest in environmental ethics at the governmental level. It is accepted that there is a moral aspect, that both individuals and their governments have a *duty* or *obligation* to act in ecologically responsible ways. The moral appeal is gaining ground among policy makers. Sums of a different order than before have been earmarked for ethical studies as a follow-up to the Brundtland Report (United Nations 1987). No similar sums are available, or will in the near future be available, for the study of attitudes toward nature and the conditions favorable to changes in the direction of ecologically responsible actions on every level, including the governmental. These changes may in Kantian terminology be called changes in the direction of a greater inclination to act in ecologically responsible ways. An act in the sphere of efforts to overcome the ecological crisis is a moral act if, and only if, it is motivated by the call to do our duty. Then there are acts with ecologically beneficial results that “display facility and appear to be accomplished without painful toil”—they are *beautiful* acts within the realm of ethically and ecologically relevant contexts. Again incidentally: insofar as we rely on Kant’s judgment, we should expect women to be the main driving force in fostering ecologically relevant beautiful acts.

A very common comment by people hearing a description of deep ecology for the first time is "But I've always thought this. I just did not have words for it." They presumably had acted beautifully, without toil, and without words! It is unnecessary to add that the information "This means you have always acted beautifully!" might have made them proud and eager to continue.

Obviously, there is always the possibility that a beautiful act does not have the intended short- or long-range consequences that were intended. This applies in principle, according to Kant, to every action. When a policy is chosen on the basis of its usefulness or on the basis of morality, there is also this fundamental uncertainty. During the first great green wave (the late 1960s and early 1970s), millions developed the habit of turning off the electric lights when they served no immediate purpose. To leave them burning was difficult, unnatural. Then came sceptics repeating that the useful life of a lightbulb would be severely shortened if turned off and on "too much," and to make a new bulb would consume much energy and resources. Many felt frustrated because they saw the uncertainty of both strategies: the calculation of the basis of utility versus reliance on an acquired natural inclination.

People badly informed *may* cause small ecological disasters, making false judgments of a factual character. Today more than ever it is one of our duties to keep informed; the better we are informed, the better our basis for predicting consequences.

*Acting from inclination is superior to acting from duty.* This vague announcement needs comment. First, acting from duty requires conscious analysis of the situation and does not exclude acting in spite of strong disinclination. The sense of duty is generally not very strong, and because conscious analysis is required, or often required, the ways of avoiding unpleasantness through talk are considerable. "It *seems* it is now my duty to do such and such, but close analysis shows that I really do not need to do such and such."

If it is urgent to have people behave in a certain way in a particular situation, the question "Are there any ways we could make them *inclined* to act (energetically and nonviolently) in that way?" has priority. There are not many noble heroes, and if people are influenced to act from inclination, a stable habit is formed, whereas the moral act, at least as it seems to be con-

ceived by Kant, normally does not form a habit. If it forms a habit, it starts feeling natural, and an inclination occurs. In short, the moral act glides into a beautiful act. In the terminology of social science, norms are *internalized*. Perhaps Kant has underestimated this development. It increases the importance of appeals to moral capacity, but it does not reduce the importance of processes that tend to induce inclination directly, internalization with verbalized normative appeals: utterances like "See how nice this animal (flower, landscape, . . .) is" or "I wish I could help these people who are forced to live in this polluted area; such work would make me happy!" There are appeals through body language that induce joy and a process of identification. Such processes make up the nonreflective imitation and adaptation to society of children.

In his monumental *Kritik der praktischen Vernunft* (Critique of practical reason), Kant goes deeper, but I shall not bring this work into our discussion. We have such and such a special duty *in* such and such kinds of situations. Mostly the adequate reason in answer to the question "Why do we have that duty in that kind of situation?" is in terms of higher-order moral norms combined with a relevant classification of the kind of situation at hand. Duties are *relational*, a term better suited than *relative*. Intense, protracted questioning more or less inevitably leads in the direction of codified systems of normative ethics. It has been done most thoroughly by the Catholic Church in the more stable Middle Ages. Here it is only relevant to remind us of the moral *corrugibility* of any concrete announcement of a duty in a concrete situation, and the analogous need for change in the direction of a beautiful action. Hypotheses about the "facts" of the situation are involved.

What are the main ways to promote more and more consistently beautiful actions in the fight for ecological sustainability? This is a battle that has to be fought by individuals in their private capacity and by all sorts of institutions in the wide sense.

It is easiest to start with educational institutions in the materially rich countries—from kindergartens to postgraduate schools. In the kindergartens, the body language of the respected people taking care of the children is decisive. The care and respect manifested in every interaction with every living being has immediate and strong effect. One of the necessary

conditions is the presence of such beings. In Tokyo and many other places we find kindergartens (children gardens!) practically without any noticeable nonhuman life-forms except some occasional flies, which are treated as intruders. Much of the space is occupied by various mechanical contraptions.

In elementary schools, knowledge is often taken to be as important as appreciation, insight, feelings of nearness and of wonder. (Children are conceived as beings who must be useful, successful, and well entertained.) The socialization process is important, but unhappily the “environment” children are mostly adapted to today is the extremely poor communities of human beings, dogs and cats, and perhaps some spectacular, big plants, roses, and so on. The teachers are not expected to manifest love and respect for life, nor to reveal the difference between life quality and standard of living in their interactions with the children.

At the other end of the formal teaching, the postgraduate seminars, even when life-forms are studied, the style in which they are taught is from the viewpoint of an observer, not a participant. Field trips are rarely made in silence such that students can hear clearly what trees or tiny animals and plants are telling them. The focus on interaction with fellow students is permitted to go on as if they were alone and not together with a myriad of beings. Nor are they taught to express what they *really* experience and what *gestalts* they participate in, leaving subject-object relations out. They may obtain their doctorates without ever *sensing* what they are talking about, and if they have gained cognition (not only knowledge) of the third kind (Spinoza), they are not stimulated to consider how to *inspire* others, how to *lead* them without many words to acquire the third kind, the understanding love and loving understanding (*intellectualis amor* = *amor intellectualis*).

When we proceed to the subject of institutions, the social and political framework of the individual, practically nothing is done to protect the insights a minority has gained and to stimulate further gains. The United Nations *World Charter for Nature* (1982) is not taken seriously when it proclaims the intrinsic value of Nature independent of narrow usefulness for human beings.

What about the sphere of policies for fisheries? Is the Kantian distinction relevant? The leaders of organized labor and the politicians of the labor party—for example, in Norway—know that previous policies have been disastrous for the richness and diversity of fish in vast areas. They

know they have to propose exasperatingly small quotas. This perpetuates high unemployment. Their duty is clear, but the unemployed fishermen are furious. The political life of the leaders is in this situation precarious. The temptation to propose somewhat bigger quotas is normally there, but for the few who have internalized ecological norms, there is no temptation whatsoever. To propose unpopular regulations based on ecological considerations is the only, and the completely natural, thing to do. Of course, they are risking their political life. But with joy? Certainly not. With inner satisfaction, yes. As a moral act in the Kantian sense? Perhaps.

Richness and diversity *must* be increased. This goal is so evident that to say it to oneself in words is superfluous. A labor party minister of fisheries resigned recently after having been able to establish strict quotas. She presumably had had enough unpleasantness from the furious fishermen who had lost their jobs. Had she acted beautifully? I think the Kantian distinction works better for people who do not have the kind of power and responsibility of leaders in Western democracies.

In short, there is little understanding that fostering *inclination* is essential in every aspect of socialization and acculturation and therefore also in the global ecological crisis. Moralizing is too narrow, too patronizing, and too open to the question "Who are *you*? What is the relation of your preaching and your life?" An invitation to act beautifully, to show beautiful acts rather than talk about them, to organize society with all this in mind, may recognize and acclaim such acts, and be a decisive factor that at last will decrease the unsustainability. "Tell me about your beautiful acts today! Do the authorities encourage such acts?"

What I have offered for reflection is a small variation in our perspective, looking at what goes on in terms of a Kantian distinction. Thank you, Immanuel.



## Should We Try to Relieve Clear Cases of Suffering in Nature?

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This essay addresses the empirical manifestations of life, not questions about the innermost essence of life, whatever that may be. Therefore, it does not discuss beliefs in the absence or presence of a definite trend toward ever “higher” life-forms. It just talks about what we see around us.

Aldo Leopold and many other dedicated protectors of nature seem to hold that nature as it evolves with its fabulous manifold is good in an ethical sense, not beyond ethical good or evil. At least this is my conclusion about Leopold’s opinion, if we accept the rather trivial proposition that if something is ethically wrong, it cannot be ethically good.

In *A Sand County Almanac, and Sketches Here and There* (1987), Leopold says: “A thing is right when it tends to preserve the integrity, stability and beauty of the ecosystem. It is wrong when it tends otherwise.”

Various interpretations are possible, some of which are not acceptable to me. These are interpretations such that the above formulation—let us call it the *L*-formulation or just *L*—furnishes a general criterion or definition of right and wrong in an ethical sense. I do not operate with any such general criterion or definition. Also, I am worried about the “thing.” If “a thing” is meant to connote something much wider than “an interaction of a human being with the rest of an ecosystem,” then over the centuries things would happen that according to *L* would be wrong: ecosystems come and go.

A reformulation of *L* such that I could accept it would read: “A decision has presumption in its favor if there is reason to assume that its implementation will tend to preserve—or at least not interfere with—the integrity, stability, and beauty of the set of ecosystems concerned. A decision

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has a presumption against it if there is reason to assume that its implementation might reduce the integrity, stability, or beauty of the set of ecosystems concerned." I write "set of ecosystems" instead of just ecosystem because any human interaction happens with a set of comprehensive systems of unequal scale—the largest today being the planetary system of the sun.

At least one distinguished ecologist, Ivar Mysterud, and a friend of the reindeer, thinks that even if there were an ecologically very innocent way of heavily reducing the population of a certain parasite that causes extreme pain to the reindeer, or of altering its habits, it should nevertheless *not* be carried out. The reason: it might disturb a relevant ecosystem. We know too little (the *docta ignorantia* of a field ecologist!). I agree that there is a presumption against it, but I disagree with his conclusion. The very prolonged, cruel sufferings of the reindeer count more. I am for radically reducing the population of the parasite even if it may be wrong according to *L*. If an ecosystem is dominated by pain-producing parasites, perhaps we might say its "beauty" diminishes? I am somewhat uncertain about how to interpret the term, and also about the possibility that human beings could preserve or enhance beauty by interfering.

Philosophically less important, but ecopolitically important: if an ecosystem has been radically disturbed or destroyed by human beings (for example, through deforestation) and a different ecosystem is created (for example, a desert), does *L* cover the new system? If "man-made" ecosystems are not covered by *L*, how is the European situation to be judged? Fairly old landscapes that are "man-made" in the sense of having been radically influenced by human beings a long time ago are now protected as "free nature." We try to preserve their present integrity, stability, and beauty, or we try to restore a former ecosystem considered to be more "natural," but partly because their "human" character has been forgotten.

In short, I feel a need to know about how *L* is applied in concrete cases.

Perhaps because of the problematic nature of all proposed criteria of goodness since the time of Socrates, I look with wonder at the efforts to find a nontautological supreme and general characteristic of goodness. Perseverance in the service of protecting nature, and support of the deep ecology movement, does not imply any definite opinion on questions of unconditional goodness of nature as a vast set of ecosystems—not even on whether the question of goodness is meaningful. In what follows, I shall fo-

cus on the darker side of free nature and how contemplation of this may influence one's choice of ultimate criteria of the goodness and badness of a case of interference.

The development of life on finite Earth clearly presupposes the process of dying. We must "accept" death, but the death of insensitive beings does not disturb us as much as the death of sensitive beings, and a quick, painless death does not disturb us as much as a slow, painful one. Sometimes the quick death is due to predators; sometimes the slow, agonizing death is a "natural" death of old age—but sometimes the opposite is the case.

Every day some animals become weak and ill and enter a process of dying that involves prolonged pain as far as we can judge from their behavior. When wild reindeer smell large carnivores like bears, wolves, or dogs, they run away quickly. Old and tired reindeer find it more and more exhausting to keep up with the others. The same holds of some of the young ones. If they are caught quickly by carnivores, they tend to get a rapid, merciful death and not a slow, "cruel" one. Some reindeer experience the latter. Having been badly attacked by a winged insect (*Cephenomyia trompe*), they may die very slowly from suffocation from the growing larvae in their noses.

I hope no such planet exists, but consider one where slow, painful death from parasitism is universal. How would we talk about nature on such a planet? What kind of book would Thoreau have written there?

The parasitology of mammals tells us about parasites that kill or maim in ways that elicit intense alarm, disgust, and great negative feelings in us. Evolution specialists tell us that such parasites are not among the most successful and highly developed ones, which thrive without inflicting intense suffering or death on their hosts.

This admission of the imperfection of some parasites does not console their victims, however. The situation is relevant in assessing the adequacy of unconditional positive, sometimes highly emotional utterances about nature. What do human beings do when witnessing animals in what they think is unnecessary and prolonged pain? Those who intensely identify with the victims try to rescue them, provided it is not too late and a practical way is seen. The rescue may involve merciful killing by human hands. Generalized, and made into a policy, rescue attempts would amount to an

attempt to reform nature. Not everybody studying the consequences of such a policy will accept it as desirable. Because it is totally out of our reach completely to eliminate prolonged extreme suffering, it is of no practical value to discuss its ethical status, but its existence makes *general* glorification of nature strange to many of us.

A main point under consideration is our ignorance of consequences. What if we had adequate knowledge? One answer: we never will have! I suppose, though, that we could have sufficient knowledge in particular cases. If adequate ecological knowledge were available, some of us would not hesitate to interfere on a large scale against intense and persistent pain.

The manifold of different cultures is a desideratum according to most supporters of the deep ecology movement, but in many of them some animals in culturally important situations are caused terrifying and persistent pain by human beings. There is a real difference between initiation rites of a culture causing pain and rites involving animals who cannot grasp the meaning of the pain inflicted on them. Their helplessness is of a higher order. My very tentative conclusion is that the cultures in question might be approached in a way that indirectly would cause a change of behavior toward those animals.

"Look at this exquisitely beautiful little creature! Look at the colors, the shapes, the impressive and beautiful contrast between the green surrounding and its own colors! How can we not bow down in awe? How can we human beings kill and destroy so much of beautiful nature!?"

This passionate utterance may have occurred when a nature-worshiper saw a ladybird beetle in action, without noticing that the beetle was systematically using her formidable jaws to pierce the bodies of small green aphids, eating her way through a stalk of them. If her behavior were filmed and enlarged and shown on a big screen, the same nature-worshiper would probably shudder.

The utterance "beautiful, lovable!" does sometimes, but not always, depend directly on a process of identification. If identification is strong, an utterance like "tragic, paralyzing, horrible" may be rather natural. Moreover, action will follow, completely spontaneously. The victim is rescued.

A “compassion priority norm” seems to collide with the point of view of Stephan Lackner in his very important book *Peaceable Nature*:

We have to accept life on its own terms. There are no others, at least none that apply to us. We have to talk about “good” or “bad” even while conscious of the obvious relativity of such valuations. “Good for whom?” we have to ask before every decision. The more general the applications of this “good,” the more desirable. The mounting scale of positive values would appear, consequently, like this: good for my own self, for my family, for my club, for my community, my ideological or religious group, for my province, nation, continent, for humanity, in ever widening circles. Only when we come to the most general aim—good for life—is relativity suspended, allowing us to envisage an obligatory good.

(Lackner 1984)

Can I know whether rescuing or not rescuing a living being from lasting, excruciating pain is “good for life” of the biosphere at large? I don’t know, and I decide to rescue anyhow.

For some philosophers, among them Peter Wessel Zapffe (Naess 1991e), the hypothesis that life is completely meaningless plays an important role; for others, hypotheses about definite cosmic goals are all. Lackner says that we “have to accept life on its own terms.” Some people, however, decide to quit life, basing their decisions on hypotheses about their own lives and their unwillingness to continue. One may have a norm saying that one *should* accept life on its own terms, whatever they are, but this is a norm that many of us feel depends on some fundamental premises: answers to the question “Why should we?” Must we be passive because insufferable pain is a genuine part of life?

What is the status in the work of Thoreau of compassion and interference to end prolonged suffering? It is a question that might throw light on his basic view of identification and the human–nature relationship. When he observes one ant fighting another, there is identification:

I saw that, though he was assiduously gnawing at the near foreleg of his enemy, having severed his remaining feeler, his own breast was all torn away, exposing what vitals he had there to the jaws of the black warrior, whose breast-plate was apparently too thick for him to pierce; and the dark carbuncles of the sufferer’s eyes shone with ferocity such as war only could excite. . . . I felt for the rest of

that day as if I had had my feelings excited and harrowed by witnessing the struggle, the ferocity and carnage, of a human battle before my door.

(Thoreau 1971: 230–31)

Just within the edge of the wood there, I see a small painted turtle on its back, with its head stretched out as if to turn over. Surprised by the sight, I stooped to investigate the cause. It drew in its head at once, but I noticed that its shell was partially empty. I could see through it from side to side as it lay, its entrails having been extracted through large openings just before the hind legs. . . . Such is Nature, who gave one creature a taste or yearning for another's entrails as its favorite tidbit!!

(Thoreau 1949: 345–46)

There is a certain neutrality in this attitude in spite of strong, but partial identification with sufferers. I do not see examples of Thoreau interfering “in nature.” It is as if Nature, by him written with a capital *N* in the above quotation, is something apart or that human beings are something apart. I do not know. Just because I am not apart, I interfere in certain situations no matter what abstract reflection tells me.

Ecosophy, in my variant, “T,” does not imply any “acceptance of life” independent of definite assumptions about life. It contains—among others—two hypothetical assumptions: (1) there are no structures of the universe such that living beings cannot reach the highest levels of realization of their potentialities; (2) there is no definite limit of development of symbiosis, using this term in a wide sense. The development of ecosystems is not such that the self-realization of a living being depends *necessarily* on the destruction of the potentialities of others.

Part of the motivation for developing Ecosophy T is a reaction against “cult of life” and “cult of nature” *whatever its manifestations*. It is also a reaction against a tendency to take as axiomatic that life—Life with a capital *L*—somehow exists independent of the behavior of living beings, and that nature—Nature with a capital *N*—somehow exists independent of what happens, manifests itself for all to see. Ecosophy T does explicitly and firmly reject human brutality, cynicism, oppression of the weak, and lust for “power over.”

The twentieth century has seen political developments in which completely amoral acceptance of power and strength has been justified based on

concepts of “nature red in tooth and claw.” If nature is dependent on brutality, and we are part of nature, why should we try to shun brutality? As Hitler once said: “We have to destroy the Polish intelligentsia. It may sound brutal, but it is in accordance with the laws of nature.” Brutality, racism, and other coercive phenomena have been defended in many ways, but one of them is by means of an unrestricted acceptance of *every* manifestation of life in nature.<sup>1</sup>

A student of cultural anthropology may witness in a particular culture a case of extreme suffering, which he may consider completely unnecessary and easily avoidable. Yet he knows that if he uses his way of eliminating that suffering, he undermines the culture. The clash of norms is formidable; there is no easy way out. Whatever the decision, the goal would be, according to Ecosophy T, to relieve extreme suffering of the kind envisaged *within* the framework of the culture. As with animals, ignorance and misconception must be taken into account. A culture is not something static.

Whether we are dealing with cultural systems or with ecosystems, the problematics are in principle the same: we have to assess the consequences of interference, the short-term as well as the very long-term effects, and judge the effects in terms of a norm system. We *have to* reach conclusions based on glaring inadequacy of available empirical knowledge and a clear norm system.

The complexity of the web of life even within a cubic millimeter of soil is, and presumably will remain, indescribable, but if humanity does not destroy itself, our basis for concrete ecological decisions may increase immensely. Respect for the dignity of free nature and proper humility do not rule out planned interference on a greater scale, as long as the aim is a moderation of conditions of extreme and prolonged pain, human or non-human. Such pain eliminates the experience of a joyful reality. We are not justified in turning our backs, or closing our eyes, to extreme suffering.

The higher levels of self-realization of a mature being *require* with increasing urgency the assistance of any living being to realize its potentialities, and this inevitably actualizes the concern for the sufferers.

This kind of argument indicates part of the motivation for not placing a norm like “Richness and diversity of life!” as an ultimate norm. The ultimate guidelines must squarely face the extreme suffering in nature. The argument implies disturbing some manifestations of life; it implies interfer-

ence in natural processes—but highly selective interference and not necessarily on a large scale. Interference in nature today is excessive.<sup>2</sup>

The admission of the existence of extreme kinds of suffering in free nature does not in any way support highly influential “bellicose” views of nature as a whole. The most often quoted articulation of such a view is that of the poet Tennyson: “Man . . . who trusted God was love indeed / and love Creation’s final law / Though Nature, red in tooth and claw / With raven, shrieked against his creed. . . .” Darwin used his expression “the struggle for life” extensively, and the interpretation was quite natural that he mainly referred to the painful and deadly struggle against enemies. Kropotkin, early in the twentieth century in his seminal *Mutual Aid* (1955), objected, but the view that nature was *full* of cruel competition suited the extreme economic liberalism and colonialism of England as well as the bellicose nationalism of Germany. Today, popularizations of this theme are still found in the life sciences. The opposition is vigorous but less known to the general public.

The following six propositions I think are tenable:

1. Predation (of animals by animals) has played an important role in evolution but is not a necessary ingredient on the level of birds and mammals.
2. A very small portion of birds and mammals die through predation (5–10 percent).
3. Only a small part of the life of animals is adequately described by the expression “struggle for life” or “struggle against enemies.”
4. The fitness referred to in the phrase “survival of the fittest” does not in general refer to fitness in deadly struggle or cut-throat competition with others.
5. Many birds, such as flamingos, and mammals, such as koalas, rarely meet a violent death (not taking human and exotic, human-introduced predators into account).
6. In the long run and on the whole, the less the chance of getting killed, the fewer the number of descendants. There is no general pressure to have as many offspring as possible. (Having no natural enemies results in a natural birth-control tendency of having fewer pregnancies.)



Even if these propositions are strongly confirmed by observation, it is not very strange for a twenty-four-hour stroll in free nature to result in many observations aptly but unprofessionally characterized as tragic, brutal, cruel, hideous, horrible, or detestable.

Accounts written by forerunners and contemporary supporters of the deep ecology movement rarely mention these encounters and observations. Why not? I think it is worth pondering that most supporters implicitly assume and strongly feel the existence of a creative principle essentially connected with life that more or less compels veneration—something akin to Spinoza's "God or Nature." It is, however, nature with capital N. Trying to communicate this essential creative aspect of life by dwelling on cruelty and pain would lead us astray. So we don't talk about it?

In Ecosophy T there is an ultimate norm "Self-realization!" and an ultimate hypothesis "The higher level of self-realization reached by a living being, the more further increase requires others to reach self-realization."<sup>3</sup> In simple words, it is not a question of acceptance of any kind of life but of "live *and let live*!" Thanks to the capacities of the human brain, full realization of our potentialities—if there is any limit—cannot be anything like an ego trip but must be a joint venture with other beings, both human and nonhuman. The higher the level of realization, the more the realization is a joint venture, a Self-realization without loss of the individuality of each living being. We have sometimes the potentiality of relieving extreme suffering, human *and* nonhuman—and we make use of that privilege.

## Sustainability! The Integral Approach

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The Greek philosopher Diogenes of Sinope, or Diogenes in the Barrel, is well known because of his meeting with Alexander the Great. When Alexander, standing in front of Diogenes' barrel, asked him to express a wish, he is said simply to have answered, "Please stop blocking my sun!" Alexander could have granted him much more. He could have had gifts produced through great expenditures of energy and natural resources. Diogenes was active in the rich cultural life of Athens, but this did not require any gifts of that kind. Diogenes' solution to his housing problem was a nonverbal expression of a globally, regionally, and locally sustainable lifestyle, and his answer was a verbal suggestion of the same. Alexander was reminded of the ecologically innocent character of vital needs, and—let us not forget Diogenes' proverbial wit and joyful, spontaneous character—Alexander got a lesson in "rich life, simple means." It is said that most followers of Diogenes through the centuries have misunderstood him, taking him to be a proponent of a simple, not a rich, life.

The reason I mention Diogenes of Sinope is to remind you that classical Greek philosophy as well as philosophy in the Middle and Far East combined the verbal and the nonverbal. You were not a philosopher if you did not. Today, we still say that so-and-so is a philosopher and use the word for such a combination, but the intended range of philosophies seems small. Mostly people have in mind what the professionals call popular Stoicism, or, to give another example, popular Epicureanism. The very special form

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of Western academic philosophy does not ask for a philosopher. No combination of theory and practice is called for. If it were, some of you would perhaps be called sustainers, practicing a philosophy that combines theories of biodiversity and sustainable development with an appropriate, or at least, intended appropriate, lifestyle. There is much talk about a “new” ethics of respect for life on Earth, but it does not focus on the lifestyle of those who emphatically agree. One strong reason for the neglect is the plain fact that the complication and structural density of modern society make it practically impossible to combine the consistent use of simple means with participation in social and political struggles.

Depressing? Yes, but we may allow ourselves to say that Diogenes in the Barrel went too far. Here I follow Aristotle in advocating “everything with (philosophical) moderation.” An Indian practicing philosopher perhaps also carried the concern for citizens’ self-sufficiency and equimindedness too far when he, old and satisfied with life (“enough is enough”), brought together some wood, started a fire, placed himself on top, and cremated himself (in conformity with a practice that caused deforestation in certain localities). Incidentally, yoga of some sort is part of most classical Indian philosophies. They integrated theory and practice.

Fortunately, there are possibilities for decreasing the unsustainability and ununiversalizability of the “average” lifestyles in economically rich countries without decreasing life quality. To exemplify such a decrease is a great aim for some who wish to be taken seriously in the present struggles.

Discussing various interpretations of the term *sustainable development*, we may start with the following formulation: There is sustainable development if, and only if, it ensures that it meets the vital needs of the present-day human population without compromising the ability of future generations to meet their own vital needs.<sup>1</sup> This formulation resembles those of the Brundtland Report, but there is a major difference: the substitution of *vital needs* for just *needs*. Lists of needs made by decision makers in the rich countries include items that clearly are exorbitant and ununiversalizable. Even the *desire and demand* for more parking space is generally talked about in terms of satisfaction of a *need*. Those often are placed in urban locations where children have had their precious playgrounds, or where people have long lived but cannot afford a car, or among those who are incapable of resisting destruction of their habitat.

Needs are accepted that, if met, exclude sustainable development in every acceptable sense. The term *vital*, although vague and ambiguous, is a good starting point for a critical approach to the term *need* in its relation to *demand* in the marketplace of the world's rich countries.

If we postulate that human beings have a special ethical obligation toward their fellows, that which serves the vital needs of humanity requires a kind of priority. This does not mean, however, that we have no serious obligations toward nonhuman beings, and classes and systems of such beings, culminating with obligations relative to the Earth as a whole. These obligations, though, are mainly negative: obligations related to destructive consequences of our exponentially increasing interference in the ecosystems.

As to the satisfaction of human vital needs, there are at present a substantial number of human beings living in a desperate state of poverty or oppression, which clearly prevents a minimum satisfaction of those needs. They live mostly in countries one may call poor, using an economic measuring rod, and the term *sustainable development* should there imply *sustainable economic progress*.

The implied task is gigantic considering that there may soon be twice as many people in the poor countries but not twice the area of cultivable land. Under similar circumstances, Europeans who immigrated to North and South America introduced vast unsustainability, including a decrease of human cultural diversity.

It marks a major victory for the global ecology movement that the World Commission for Environment and Development announces clearly that sustainable development unconditionally requires ecological sustainability. The consequences of this admission are far-reaching because ecological sustainability requires significant economic, technological, social, political, and cultural changes in most or all countries. Here I shall first dwell on a terminological consequence: the term *developing country* automatically implies "ecologically developed country."

If we retain the underdeveloped/developed terminology, we must therefore class all ecologically unsustainable countries as *underdeveloped* without need to add the adverb *ecologically*. It is implied by our terminology that these countries are underdeveloped. The richest industrial country is not a developed country if it is not in a process of ecologically sustainable development.

A revised terminology has already been introduced in Norway: "When will it rise from being underdeveloped to being a developing country?"

That is, when will the rate of unsustainability (globally measured) decrease in a stable way? My guess is that by the year 2020 this may well happen. As it is now, Norway, like the United States, has not turned the tide of pollution, energy consumption, and other variables that must be taken into account. Those who think this guess is rather pessimistic are likely to neglect our wide perspective: it is the global situation that counts, and we must take into consideration that in the years 2000, 2010, 2020, with an even bigger population and with economic growth in terms of GNP in the Second and Third worlds, the projected level of Norwegian pollution, growing energy consumption, and so on, cannot be tolerated. Talking about 2020, I have assumed that political ability to take ecological problems seriously will increase, but not in any revolutionary way. That would require a vast increase of active interest within the Norwegian population at large—many more sustainers!

One may hold that it is wiser to modify the old usage of *developed*. My point is only that there is ample ground, when we seem to encounter its old use in discussions, to ask what the terms are meant to express, and then strongly discourage any use that might support the old belief that the rich industrial nations are developed and somehow able to show the poor countries the way to development. This belief is still not uncommon within the power elites of the Second and Third worlds, I am afraid.

In the 1980s it was out of the question for a wide group of politicians to declare that life on Earth, or life in the Universe as a whole, has any value in itself apart from the rather narrow serving of human needs and interests. It was out of the question to declare that the richness and diversity of life is worthy also of being cared for for its own sake, in the sense that we feel it obvious to care for children for their own sake. Such thoughts could not have been incorporated into a report such as *Our Common Future* by the World Commission on Environment and Development (United Nations 1987). By now, only one country, New Zealand, can show a public document that affirms intrinsic value. If, within a few years, such an affirmation becomes commonplace, it will not make much difference in human practice, but it will *add to the force of argumentation* in favor of generous, wide sustainability. “You *said* it has intrinsic value! Why don’t you act accordingly?”

The formidable capacity of our brains makes it easy for us to “see ourselves in others,” not only in other human beings but in every living being.

Sometimes it is even easier to identify with certain animals than with certain human beings. Compassion, aided by the brain, is something that encompasses everything capable of pain. The interest, in a broad, easily understandable sense, of a tiny plant to live and blossom is obvious, and under suitable circumstances we act to serve this interest. The definition of sustainable development cannot ignore these facts. A wide and deep perspective is obviously needed. Human capacity to think and to feel, human dignity, requires it. Our contemplation of the development of life on Earth through countless millions of years, the development of the richness and diversity of life-forms, almost inevitably makes mature, informed human beings adopt a wide perspective. In short, we demand that full ecological sustainability shall mean or include conservation of the richness and diversity of life-forms. We cannot slavishly accept the narrow interpretations of the Brundtland Report (ibid.), interpretations that some of the signatories, including Gro Harlem Brundtland herself, personally, I think, find too narrow.

Let us look closely at the term *sustainable development* as it occurs on page 8 of *Our Common Future* (ibid.): "Humanity has the ability to make development sustainable—to ensure that it meets the needs for the present without compromising the ability of future generations to meet their own needs." Plausibly, but narrowly interpreted, what might according to the above be considered satisfactorily sustainable is compatible with maximal destruction of life conditions on Earth, a maximum of extinction of life-forms and habitats of life-forms, a maximum of gross human interference with landscapes and ecosystems—as far as these maxima are conceived to allow satisfaction of human needs, as those needs are conceived at any definite time. In addition, we must ask, Considered by whom? It is clear that by "reforestation" many decision makers do not refer to getting back real forests. The artificial tree plantations with fast-growing trees do not support the biodiversity of a forest. The number of species in them may be one-fourth, or less, of those of a decimated forest. If it is objected that one must distinguish the forest *itself* from the animal and plant life in it, the ignorance of ecosystem thinking is clear, and the way is open for a maximal destruction that only too late will be seen to be incompatible with the satisfaction of vital needs of additional billions of people born in the years to come.

In the present conflicts, the usual narrow interpretations of "sustainable development" are convenient for planners of gigantic destructive poli-

cies, because it is difficult to convince people that future generations will lack the ability to take care of themselves whatever we find suitable to do. People read about technological inventions, even revolutions, that are likely to push the limits of responsible growth indefinitely. They do not read about the lack of economic and political will to make global use of the inventions made even long ago.

Rejecting the narrow concepts of ecological sustainability, which a plausible interpretation of the Brundtland Report admits, some of us are on the outlook for definite, wider interpretations. Preferably these should not be completely implausible interpretations of the document but should be in harmony with what at least one of the twenty-two people underwriting the document had in mind. The criterion I am going to make use of in what follows does not explicitly refer to human beings, but they and the richness and diversity of their cultures are implied.

There is ecological sustainability if, and only if, the richness and diversity of life-forms is sustained.

Ecology helps us to understand and watch out for destruction of ecosystems and habitats. Those terms are not used in the above formulation because it should be widely understood and be emotionally attractive. By "richness" I do not refer to abundance of specimens of species but to their wide distribution locally and regionally, provided that wide distribution is realized today or was recently realized and it is practicable to restore the former situations.

The criterion is applicable to the Earth as a whole, to regions, nations, and societies, but only to some extent to localities. It is perhaps of little use to talk about ecological unsustainability, for example, in *small* areas or localities of monoculture or of city developments. A region may be called sustainable even if there are plenty of localities of that kind. Otherwise, sustainability is too utopian. The term *development*, however ambiguous, must be used because of its importance in policy documents. A terminology proposal:

A *development* is ecologically sustainable if and only if there is a long-term trend that assures, or that may justifiably be considered to assure, ecological sustainability.

The special obligations we have for our own species require us in the long run to assure a population what is necessary to provide conditions for

reaching the ultimate goals of humankind and satisfying vital needs. Beyond that, our obligations to life in general and the Earth as a whole acquire priority. These obligations will in the foreseeable future scarcely determine policies with wide sustainability as a goal. If the most exciting threats, such as those involving climatic change and the ozone layer, seem to be overcome, and if spectacular animals and limited plant biodiversity are saved, certain regions may be classed as developing in an ecologically sustainable way. In a broad sense, crude ecological unsustainability may still be at hand. There is a long way to go.

If some Third World countries reach ecological sustainability in the next century, which one will be the first? Costa Rica? The education level of women is high, the standard of living is increasing, the government is interested, a significant number of "parataxonomists" (raised in the country) and others help mapping out the fauna and flora and do an important job to increase respect for and joy of life. Furthermore, much is done to develop sustainable uses of tropical biodiversity, thus integrating concern for ecological sustainability in society. The cooperation of researchers and local people is flourishing. The ecologist Daniel H. Janzen is the most well-known researcher working along "social ecological" lines and collecting millions of dollars in aid for Costa Rican projects. All this activity decreases the ecological unsustainability in some ways, but large-scale deforestations still go on. Some researchers guess that only about 10 percent of the habitats will be saved from complete human domination with extensive regions of monocultures and asphalt. It is, therefore, a wide-open question when sustainability will be reached, if at all.

One may wish that all other tropical countries would develop in the auspicious way of Costa Rica. The corresponding amount of money that would have to be collected in the rich countries would not be in the range of millions, but billions. Benevolent bureaucracies would have to be available, and an army of ecologists and their assistants working together with the local populations.

The great Danish philosopher Søren Kierkegaard, the father of existentialism as a philosophical movement, insisted that human beings are always in "deep water." Their decisions must be made on the basis of a total integrated view, but systems like Hegel's are mere fictions. This implies, in principle, going back to ultimate premises, and to a conception of the main



goal of human life, whether pleasure, happiness, or achievement of some sort. It implies also that if you consider a certain question to be of immediate relevance for actions in your life, your community, or life on Earth, you must have an answer, whether expressed through deliberate words or through deeds. Moreover, we should remember that even if we do not answer deliberately, our actions or lack of actions express answers.

In life one cannot say "Leave me out!" Ignorance and incompetence furnish explanations, but not an excuse—not automatically. The question "Are we informed to an extent that should be expected of us?" is relevant.

Crudely expressed, if it is an important decision either to turn right or to turn left, to do neither also has important consequences. One answer may be "I am too tired to reflect. I'll go left!" This or similar kinds of answers must, of course, sometimes be tolerated. The main thing is the awareness, with equanimity, that a choice is made anyhow.

The practicing philosopher is one who feels an obligation to answer but who does not thereby pretend that it is worthwhile for others to listen. Perhaps all our answers are more or less imperfect.

Those who are serious about somehow decreasing unsustainability locally, regionally, or globally may contribute to the effort in specialized jobs (for example, as researchers) or as generalists, showing as much as explaining their choices in life. They are then to be classed as *practicing philosophers*, whatever their degree of ignorance of academic philosophy. Sometimes this ignorance may be an advantage.

In our very special kind of culture in the rich countries of the West, verbal articulations in the form of reasons are highly appreciated. Somebody may ask, "What is your reason for valuing priority  $A$  over  $B$ ?" You may have a reason  $R_1$ , but then you are asked, "What is your reason for accepting  $R_1$  as adequate?" Suppose you answer with an  $R_2$ , or you admit that you do not pretend to have a sort of reason  $R_2$  such that if it were untenable you would give up the priority of  $A$  over  $B$ . That is, you stop the chain  $R_1, R_2, \dots, R_n$ , after the first number of the series. Generally speaking, such behavior is wise, because it is likely that sooner or later you will give misleading reasons, reasons that do not really fit your ultimate or complex motivation. Today, though, we must dig deeper—our global perspective makes it necessary.

One of the many great achievements of Aristotle was a clear denial that

we can prove everything we assert. We cannot give good reasons for everything. We stop somewhere, normally outside science, and doing this, we may, if appropriate, quote Aristotle. We can say that belief in the possibility of proving everything shows lack of education, and that we like to be considered educated.

My advice is to stop giving reasons when you announce something you personally find *intuitively* obviously true or correct, or something that you cannot imagine yourself giving up except for reasons you have never heard of and cannot see how they could be convincing. This is not dogmatism. You are not less philosophical or deep or scientific for stopping at a certain point to repeat again and again certain announcements without giving reasons. You are not worse off than mathematicians and logicians who repeatedly use the basic rules of inference, which they, by definition, cannot prove or validate scientifically.

Intuitively-based announcements are common today. Here are some examples:

“Every life-form has a worth of its own independent of its usefulness for human beings.”

“Animals have a right to exist, no less of a right than human beings.”

“Life diversity is a good thing independent of human usefulness.”

“Life on Earth is a value even without human beings to value it.”

Some philosophers offer reasons in favor of these pronouncements; others accept them without offering reasons; still others do not accept them and give reasons for that. They also stop giving reasons somewhere.

All this would be pointless to say except that, again and again, we see people who *unreasonably* feel guilty for not giving reasons, or we see scientists who hide or never announce their basic norms or evaluations because they lack “scientific” reasons.

Human beings are never wholly functionaries; they never behave wholly as functionaries. They are always, as specimens of adult, sane *Homo sapiens*, responsible as persons. The timid “As I see it . . .” and “In my personal opinion . . .” are misplaced if ultimate views are at stake. You try to step outside of yourself, try to be a *mere* witness to your own intuitions.

What about conflicting intuitions—are they not a cause of violence and war? Yes, but also a partial cause of peace, progress, and nonviolence of the most superb kind.

Some concluding remarks: Full global and regional biodiversity is necessary to reach full ecological sustainability. Full ecological sustainability is necessary to realize sustainable development. Biodiversity is required to satisfy the vital needs of humanity. This is now generally acknowledged. That the biodiversity of this planet should be protected also for its own sake was first internationally recognized through the United Nations World Charter for Nature. The initiative to get this established was taken by a group of Third World nations. The General Assembly adopted the charter in 1982 by a vote of 111 to 1, with the United States casting the sole dissenting vote. Only a *rich* nation dissented!

It serves the cause of biodiversity to maintain that it has a value in itself apart from narrowly conceived usefulness for human beings. It also helps when people who maintain this testify to its profound implications through their lifestyle, at least in some ways in some kinds of life situations.

High-level humanitarian norms justify ecologically negative policies. They should be short-range, and often they are avoidable by a cooperation of rich and poor nations on a greater scale than ever before.

Because of its touchy nature, I wish to end with a remark on the size of the human population as seen in a cultural-philosophical perspective: a future long-range, slow decrease of the human population would to some extent increase the chances of full biodiversity, sustainable development, deep cultural diversity, and the prospect of satisfying vital needs and reaching cultural and philosophical goals.

## Expert Views on the Inherent Value of Nature

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### What Is the Philosophical Position of Those Who Influence Environmental Decisions?

Are Norwegians more favorably or less favorably disposed toward the environment than the policies enacted by the Norwegian government suggest?

The debate among the political parties has presupposed for generations that the positions adopted on various issues may be located on an axis extending from left to right. The positions in the environmental debate cut across this axis. Therefore, we must picture this debate in at least two dimensions. There are good reasons for locating the positions on environmental issues within a triangle delimited by red, blue, and green sides. The green side has not, however, received much attention by the political parties. It is therefore not unreasonable to assume that Norwegians today may be more favorably disposed toward the environment than party politics suggest. We have not had sound reasons for moving beyond mere suspicion on this point until the 1980s. However, unless favorable dispositions toward the environment are expressed in entirely different ways in Norway than they are in the United States, England, and West Germany, we may today on a firm basis assume that *Norwegian policies are more hostile toward the environment than public opinion warrants*. Our highly praised democracy seems to fall short on this issue.

One investigation of public opinion in the United States, England, and

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West Germany provides particularly strong reasons for the presumption that most people want policies more protective of the environment than those supported by certain elites—for example, union leaders, elected and appointed officials, and business executives. This poll was undertaken in 1982 and appeared in Lester W. Milbrath's *Environmentalists: Vanguard for a New Society* (1984). The questionnaire employed in the poll contained a large number of questions about relations between human beings and nature. Most of the questions addressed relatively specific and controversial issues. The responses were surprisingly consistent with positions adopted by the more radical branch of the environmental movement.

One of the most striking features of political arguments used to decide for or against intervention in free natural processes is that *respect for nature in itself* is not mentioned. What is considered almost exclusively is the narrow utility value for human beings that may result from such intervention. This has influenced environmental activists to adopt certain assumptions regarding the environmental attitudes of “power holders.”

One widespread assumption is that politicians, bureaucrats, and the “experts” that have made their services available to them share views on the relationship between man and nature that are profoundly different from the views held by the environmentalists themselves. They argue that the experts both subscribe to a mechanistic philosophy of nature and support the prevalent engineering attitude, celebrating dominance, control, and manipulation. If the power holders speak of how fond they are of nature, environmentalists may easily respond by reminding them that such emotions are insufficient for grounding the proper respect: men who are very fond of women may nevertheless fail to pay full respect to the inherent value of women or the value of womanhood itself.

I have objected to such assumptions. I have maintained that politicians, bureaucrats, and experts probably do *not* share fundamental views that are less supportive of nature than the views held by environmental activists. I suggest that the causes for our society's often hostile environmental policies be sought elsewhere. Investigations that delve more deeply into the reasons for the neglect of environmental problems, reasons that may be at work even when the fundamental values of the individual power holder *would* favor more extensive environmental protection, ought to be placed high on the agenda for the remaining part of the 1980s and onward.

As a preparation for such investigations, I have suggested that we attempt to find out what philosophies of nature are actually subscribed to by those working as advisers to government and business authorities, people who are also perceived by the common person as “experts” on environmental issues.

This article discusses a preparatory investigation of this kind, which I carried out in the spring of 1985.

### The Questions

In January 1985, I mailed a personal letter to 110 Norwegians who in their work deal more or less directly with environmental questions. The sample was not intended to secure a reliable representation of predominant attitudes in the professions they represent, either for Norway as a whole or even for parts of the country. The sample is too narrow to justify such conclusions. A more extensive investigation therefore ought to be carried out in the future. Nevertheless, the professional positions occupied by these people are important enough to make a presentation of their views interesting.

The letter consisted of: (1) an introduction; (2) eight questions, or rather points, to be discussed concerning the inherent value of nature and related topics; and (3) an explanation of and commentary on these questions.

The text of the letter follows:

Dear [name inserted]:

Among the activists in the movement for environmental protection, certain assumptions seem to prevail about the attitudes of “experts,” i.e., persons presumed to possess advanced knowledge of practical relevance about a restricted topic, on environmental protection. These assumptions are that the “experts” are not eager to protect nature for its own sake and that they are only concerned about protection that is useful for humankind, particularly in the short run or within the bounds of what is politically possible today.

These assumptions may reflect the fact that the expert opinions referred to in the mass media are usually answers to questions that are narrowly focused on issues of the day—therefore they do not represent the personal priorities or fundamental attitudes of the “expert.” Such priorities and attitudes are seldom stated,

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except in private circles. Some may also feel that airing opinions in the mass media on issues to which they cannot speak with professional authority will damage their professional status or their reputation for sober judgment.

Thinking that such assumptions are not justified, and that a more correct judgment of these matters will serve environmental interests, I have decided to inquire informally about the opinions of a number of experts on the relationship between human beings and nature. The inquiry will not be posed in general terms. It will relate to eight theses that are presented below, each with a commentary attached to it. I hereby invite you to participate in this inquiry.

I will certainly appreciate answers extending beyond a simple rejection or rejoinder to the views expressed, as you choose to interpret them. And I will be grateful for whatever opinions you might want to add.

Your response to this inquiry will in no circumstances be publicized without your express consent.

Yours sincerely,  
Arne Naess

*On the inherent value of nature and related topics:*

1. The flourishing of human and other forms of life on earth has value in itself. The value of nonhuman forms of life is independent of their utility in the service of narrow human ends.
2. The diversity and richness of forms of life has value in itself, and contributes to the flourishing of life on Earth.
3. Human beings have no right to reduce this diversity and richness, except in order to satisfy vital needs. (See the comments on the term *vital*.)
4. A full development of the potentiality of individual human beings and cultures is compatible with a reduction of the human population. The protection and development of the diversity and richness of other forms of life presuppose such a reduction.
5. At the present time, the magnitude and character of human intervention in natural processes is indefensible, and the worsening of the situation is accelerating.
6. Essential improvement presupposes changes in fundamental economic, technological, and ideological structures. Such changes will have to make possible the joyful experience "that all things cohere" and dissolve the motives that support belief in the so-called "conquest of nature."

7. Changes in our way of life will involve a search for a better quality of life rather than simply a rising standard of living. There will be a turn from a narrow focus on means to a concern for fundamental purposes.
8. Those who accept these theses are responsible for contributing directly and indirectly to realizing such changes.

*Comments:*

*Point 1.* *Inherent value* is employed synonymously with the term *value in itself*. Something possessing inherent value will not have to serve as a valuable means for some other purpose. Inherent value is independent from any such purposes. This, however, does not preclude that which is inherently valuable from also possessing value as means. A hike in the forest, or good company among friends, may possess both kinds of value.

The word *narrow* in the expression “narrow human concerns” plays an essential role. A widely and deeply reflective human being will be able to adopt the goal of protecting other forms of life for their own sake. Such a human being will see the inherent value of other forms of life and support employing means useful for their flourishing, just as he or she will support employing means useful for narrow human concerns. A society joined to such wide and deep purposes will act similarly.

*Point 2.* The expression “diversity and richness of forms of life” is commonly understood as referring merely to the number of species. We do, however, need to maintain parts of the wider employment of the terms *life* and *living*. The slogan “Let the river live!” formulated in the campaign to stop the damming of the Alta River in northern Norway in the early 1980s, was in this respect aimed right on target. Concern was not limited to the riverbed and the flow of water but included the complete habitat of flora, fauna, and human activities insofar as they did not disturb the life of the whole. Here I am speaking of our living planet and other large wholes (gestalts in the philosophical sense of the word), which cannot be limited to organisms in a zoological or botanical sense of the word. These applications of the terms *life* and *living* do not presuppose any particular mythology or philosophy, e.g., panpsychism. They make good sense of how we actually experience the nature within which we live.

The expression “richness” is linked to “diversity” to counter the tendency to reject only the total extinction of forms of life. It is not sufficient that somewhere on the planet there are eagles or whales of a certain species, e.g., killer whales. We must seek to maintain their communities and the places where they traditionally gather.



*Point 3.* If one objects that the formulation of point 3 is imperfect because it is vague and ambiguous, I argue that this rests on a misunderstanding of what may be achieved in a text consisting of so few words when the purpose is to articulate principles of some depth.

If I am to approach the practical problems more closely, a commentary on the expression "vital needs" will be required. The employment of the expression in point 3 bears a family resemblance to the employment of the term *fundamental needs* in social psychology. (I use the weak expression "family resemblance" because "vital," as employed in point 3, is more philosophically than scientifically colored.) My use of the expression here is clearly oriented against a strikingly common interpretation of point 3: that anything considered necessary by a person or a group in a compromised social position may be considered a "vital need"—e.g., access to parking space, a job, the liberty to smoke cigarettes for those who feel a need for it. Such needs are not considered vital in point 3 for reasons that may be indicated by distinguishing between means and ends. It may well be that someone, finding himself in a compromised situation in which he can keep his job only if given access to a parking space, could have his fundamental needs left unsatisfied if he loses his job. A parking space in this case could be viewed as a more or less necessary means for satisfying some vital need. There are, however, too many ways in which the employment of this means can be made obsolete, thus countering any need to count access to a parking space as a vital need. These comments are, of course, not sufficient for preparing clarifying decisions, but they may at least help indicate the direction they ought to take.

The expression "diversity" is naturally interpreted as indicating the diversity of species, and this is an important part of the subject matter that it is intended to cover. However, the very broad sense of the expression "forms of life" implies that a diversity of landscapes and, more generally, landforms is also included in its scope. Environmental protection today includes such activities as the preservation of traces of old habitation and the human activities associated with them in former times. This includes the protection of old landforms, such as the peculiar geological formations of the Quaternary period.

*Point 4.* The formulation of point 4 may be a bit too categorical. However, if the emphasis is put on preserving richness as interpreted in the commentary to point 2, the last claim in point 4 is difficult to reject. One might, alternatively, recognize the unique expansion of the human species around the globe but nevertheless refrain from claiming that a subjugation of such magnitude is correct. Conced-

ing to such a claim would imply an awareness of the power of subjugation as such.

Point 4 is claimed to be valid only insofar as no changes of fundamental economic, technological, and ideological structures are under way, i.e., insofar as point 6 is not satisfied. If such changes are under way, the population problem may be reconsidered. It would, however, be irresponsible to presuppose that such deep changes will occur in the near future.

In criticizing point 4 it is necessary for one to consider the theoretical character of the thesis. Nothing is stated regarding the practical realizability of reducing the human population. Insofar as reduction is mentioned, this is motivated by the basic conviction that such reduction, if possible, would be valuable. Furthermore, it is important that the wide temporal perspective implied in this declaration of principles as a whole be given particular weight with respect to point 4. A time frame of a century will be much too short for turning the present growth in human population into a reduction. A socially and politically realistic aim would be first to stabilize population in countries with high growth rates, and second, to facilitate a very modest reduction in countries that now have nearly stable populations. Few areas of the world would, however, be exempted from restricting their population if point 4 is accepted.

*Point 6.* A considerable degree of consensus has been reached concerning the direction for the necessary economic, technological, and ideological changes. Point 6 could therefore be specified more concretely, if only to a modest degree—for example, by adding a list of key phrases indicating the direction for such changes, such as development of appropriate technology, an economy aimed at subsistence, decentralization of political authority, anticonsumerist agitation, public focus on life quality, enhancement of the life of local communities, and encouragement of holistic thinking.

The second sentence in point 6 counters the tendency within the shallow ecology movement to speak about our dependence on nature, the necessity to abide by the laws of nature, and the threat of a backlash (should we fail to abide by these laws) as if nature were an unfortunate hindrance to the flourishing of human life. The deep ecology movement does not share this discouraging view on the relationship between human beings and nature. In contrast, it builds on the experience of the invigorating intensity of this relationship.

*Point 7.* This point, perhaps more than any of the other points, is one that other participants in the environmental movement would have expressed in different terms.

### The Responses

This rather long letter was sent to 110 “experts,” many of whom could perhaps be better described as high-ranking public officials. Thirty-three responses were received, some of them consisting of many typewritten pages, others more in line with a simple statement of agreement or disagreement with each question or point.

What impression did the responses make on me as a professional academic philosopher? I was very favorably impressed by the *quality of the answers*. Some of them ought to be published in extenso; this, unfortunately, is not the appropriate place.

I am grateful that so many respondents were willing to go along with the peculiar terminology used to characterize the eight points in the letter. It is also clear that their formulations occasionally abound with a kind of friendliness toward nature that would have reminded the directors of the Norwegian Water Resources and Energy Administration of the polemics of the Mardøla and Alta conflicts.<sup>1</sup> The answers, however, are frank, direct, and often agreeably unpretentious. A list of the respondents, all of whom have kindly given permission to be cited by name, is provided as an appendix to this article (see p. 183).

### Excerpts from the Answers

In the following I quote some characteristic opinions on the eight points presented in my letter. I have taken the liberty to introduce and comment on the responses.

#### *Responses to Points 1 and 2*

It is highly relevant, particularly from the point of view of philosophical analysis, to ask (1) what inherent value is and (2) how the assertion that something possesses such value may be substantiated. To my delight, I found that most of the respondents accepted my employment of this terminology without reservation and responded affirmatively to my claims concerning such values. Others sought to express the assertion more precisely but did not dismiss the problems raised by its employment.

What if one is unable to substantiate an affirmative response to these points? I believe some of us would then point to an Aristotelian thesis which argues that the requirement that one must be able to ground all assumptions is a sign of deficient education (*paideia*). Some premises, both normative and descriptive, must stand unsupported. The alternative is to move in circles. On to the quotations!

It is probably of great or decisive inherent value—although I am at pains arguing why, and find it particularly hard to see how this inherent value could gain general acclaim, insofar as human beings to a diminishing extent live directly in touch with, and experience, “other forms of life.” The sum total of our impressions incorporates a steadily growing part that does not originate in impulses from “other forms of life,” but instead by man-made and technologically induced impulses.

(Per Sundby)

This is a very important point, although I find the word *probably* a bit misleading insofar as it is difficult to see how the probability of statements on inherent value may be determined.

Then it is burdensome to be exposed as a reactionary. I am not, in fact, eager “to protect nature for its own sake,” but only in accordance with ideas of what is useful for human beings.

(Per Sundby)

Some would say what is useful for man is what satisfies his needs. If we divide needs into material and spiritual ones, a versatile and mature human being would recognize a need to protect nature for its own sake. Therefore, nature is useful for man.

*Value* is a nice word. And I have nothing to say against the term *inherent value*. But I do not understand what it means. You explain what it does not mean, and claim that it may stand for itself. This leaves me just as wise, or rather: just as stupid as before.

(Hans Chr. Ødegaard)

This answer will receive support from professional philosophers who find the expressions “inherent value” and “value in itself” problematic. I myself trust the intensively meaningful and spontaneous experience of the

value of life in a free nature. It has been encouraging to see how the pictures of Earth taken from space have supported the opinion that the Earth and its life has a value in itself, in the sense of a value independent from us, the human beings. Philosophical analysis of concepts will hardly be able to uncover some illusion on this point; the debate will likely continue.

To me, talk of value makes no sense except in relation to something or someone. Living human beings are the closest at hand, then our closest forebears, etc., down the line of animals backward in time. Further down than moths and mosquitoes, grass and debris, this becomes difficult, but nevertheless: value must be *for* something.

(Hans Chr. Ødegaard)

It is a sad thought, but let us consider it nevertheless: a catastrophe leaves only one living being on earth, a baby six months old. The absence of “something” *for* whom or which this baby has value does not deprive it of value, as I employ the expression. Some will object by arguing that the value of the baby is something that we human beings ascribe to babies in general, disregarding these circumstances. My answer will then be: Very well, but this does not stop the baby from possessing inherent value, as I see it.

I believe that we will produce results easier and faster, or more modestly: that we may move societies and nations in the desired direction more easily, by considering value *for* human beings rather than through considerations of value *independent* of human beings.

(Hans Chr. Ødegaard)

This is an important remark, and one with which I concur completely.

A key, internationally recognized publication on our topic, *World Conservation Strategy* (IUCN 1980), makes its arguments on entirely “anthropocentric” grounds: nature has to be protected because it is necessary for the health and well-being of human beings. This publication provides *politically* weighty arguments throughout. A new edition of the book might benefit from distributing the percentage of the arguments—may I suggest 97 percent centering on *narrow* human purposes and 3 percent focusing on inherent value?

The word *narrow* in point 1 is important. Achieving all-around matu-

rity, a human being would in my opinion identify so strongly with other living beings that the sight of their mistreatment would cause pain, partly independent of whether the other being feels pain. The all-around mature human being would rejoice in the wholesome treatment of other beings. Thus, the value of these other beings would be independent of their “utility” in the normal narrow employment of that term. This is part of what underlies the addition of *narrow* to point 1.

[A]ll forms of life have value for humanity. The problem is that only small parts of humanity see, and are able to see it. Also, life that at first sight appears useless, or straightforwardly harmful, is part of the ocean of components that, gathered together, provides the experience of value/beauty/greatness and the feeling of awe/affection/wonder. This experience is accessible to different and always varying parts of nations or individuals, but always only to parts. The variations are also there in the individual: it's mostly gray, although there are glimpses of the sky.

(Hans Chr. Ødegaard)

The point of view indicated in this passage is very close to the more extreme one that I defend. It implies a step-by-step elimination of the stubborn “Cartesian” reference to the human subject. One might have objections to this elimination on philosophical grounds, or for (narrow?) commonsense reasons. Many seem to be receptive to the possibility but close themselves off at a certain point:

On point 2 I agree, but I am not quite able to see that it is possible to place value except in relation to man, and therefore doubt the correctness of saying “in itself.”

I will [also] emphasize some reservations with respect to the concepts employed, as I believe evaluations of diversity and richness are human values. What you really say is that the diversity and richness of forms of life, *as it is perceived by the human mind*, has a value in itself because it responds to deep human needs.

(Per Ofstedal)

On this I will remark that employment of the expression “in itself,” as in point 2, in ordinary, nonphilosophical, but still very instructive speech, *does not exclude* a relation to human beings. Ødegaard and Ofstedal are obviously philosophically infected experts!

Now let us consider a more down-to-earth passage:

The greatest intervention in nature throughout the history of man is probably *agriculture*. It has developed tremendously through the times we have knowledge of, and man has to a very large extent conceived agriculture as a *natural part of nature*.

It is, I hope, not too indiscreet to state that this, for many of us somewhat unpleasant, truth about agriculture is not presented by an expert in the Ministry of Agriculture but by one in the Ministry of Oil and Energy. What is done to Mother Earth by us in Oil and Energy is very innocent compared to the gigantic devastation of nature caused by the latest doubling of the population made possible by agriculture. And remember: only a small part of the cultivated area is *directly* employed to produce food for human beings. It is of no use if you claim that this devastation altogether, or at least 50 percent of it, covers the vital human need of nutrition. So stop mailing complaints to this ministry alone!

(Jon Tveit)

The importance of point 2 as an independent point in relation to point 1 seems accepted by most of the respondents.

[It is] out of *this diversity* that I gather the *inspiration and joy* which, among other things, enables me to do my work as an expert in my limited field as well as possible.

(Jon Tveit)

The continuation of this passage transports us directly to the most concrete conflicts of our day:

By the words *as well as possible* I include the importance of meeting the demands for energy—which is my professional field—in ways that take external values into consideration. What would this country, for example, be like if we did not exploit waterpower as it is done today?

(Jon Tveit)

The treatment of point 7, on quality of life, will provide an opportunity to comment on this quotation. Here I limit myself to underlining Jon Tveit's commendable employment of the term *demand* instead of *need*. I also rejoice in the fact that others in the same ministry stick to the same sober language. The same cannot be said of our representatives in Parliament!

Classical social economics was oriented toward the investigation of

how human *needs* could be satisfied as far as possible, given a specific social framework. Leading social economists before the First World War employed market demands as a useful quantitative indicator of certain kinds of market behavior, but they were not used in earnest as a measure of needs. An institution aimed at securing the coverage of energy needs would, from the philosophical point of view I have adopted, have to be crucially different from one aimed at securing the coverage of energy demands without concern for the value of satisfying this demand. In Norway, energy demand has very little to do with the vital and spiritual needs of particular individuals. (The “need” for crawfish is rising, it has been declared, and may create a new and important industry.)

### *Responses to Point 3*

Support for points 2 and 3 does not imply that one must be committed to maintaining the population of all wild animals everywhere. Per Harald Grue seems to have interpreted point 2 in this direction and expresses the following objection:

I cannot, for example, see any need or any value whatsoever in maintaining the population of wolverines in the Agder Counties, as this will entail grave conflicts with the interests we have in keeping sheep grazing in the area. I am therefore of the opinion that we may keep carnivores in selected areas of the country only, and must be ready to accept that they will be close to extinction in other parts.

Point 3 is for me the expression of a deeply felt conviction. The two key words *right* and *vital* are, of course, so vague and ambiguous that the point cannot provide anything other than a very general guide for the regulation of our behavior.

I was pleasantly surprised to see that most respondents accepted this point. The rest did not protest but merely commented on it in various ways.

... I would perhaps give the notion of “vital” needs a richer content than what seems presupposed by the questioner.

(Knut Dæhlin)

The important point is that my comments on the word *vital* in the letter invited a quite narrow judgment of what should count as vital, i.e.,



what is necessary for the full satisfaction of basic needs (food, clothing, shelter, and so on).

It is striking how some people, when placed before undisturbed nature, respond to it with questions such as “What can be *done* here?” or “What can be *used* here?” rather than by appreciating nature as it unfolds. Eystein Paasche describes these two different attitudes:

Before I answer your question concerning the eight formulations, I would like to remark that I am probably quite atypical among the working marine biologists of Norway in 1985. I have a romantic attitude toward nature and its diversity, and I am skeptically inclined toward technology (even if I depend on it in my research work). The scene of professional marine biologists in this country is probably dominated by people who, quite to the contrary, believe positively that all problems have a technological solution. This engineering spirit will likely permeate many of the statements produced in professional circles concerning our fjords, oceans, lakes, and rivers in the years to come. If you would like to know what the “experts” really mean, you should instead interview the engineers (I employ the word for people who have adopted a certain attitude, rather than for those who have completed a specific education).

The difference Paasche points to does not appear clearly in the responses, although it might have done if we had posed a more particular question about *what* plans for intervention in the natural environment ought to be effectuated.

Some still share the enthusiasm so well known in Ibsen’s characters. Let me quote from the play *John Gabriel Borkman* (1959: 107, 117): “[T]he waterfalls! And the quarries! And the trade routes. . . . All the wealth that lay hidden in the soil, and the rocks, and the forests, and the sea—I wanted to gather it all into my hands, to make myself master of it all, and so to promote the well-being of many, many thousands.” There is probably not much left of the egocentricity of John Gabriel among our experts, but there is, most likely, some of the implicit sense of sovereign right and joy in exercising the power to “subdue” nature.

Eystein Paasche claims to have a “romantic attitude” toward nature. What is really meant, I think, is a realistic and ecological attitude. What he calls an engineering attitude also expresses a romantic idea: of the ever more sovereign mastery of nature by man. In the nineteenth century, a real-

istic and ecological attitude was present in the art of painting, which also in its day was stamped as romantic.

Whether man has a right to do this [reduce the diversity and richness of nature] seems to be the wrong question. Man assumes such right in virtue of his power. A good, and deterring, example may be Africa today. Because of overpopulation and drought, the deserts expand. People starve and die. Do the people of Africa not also have a right to strive for survival? They do clearly attempt to cover vital needs, and may by this attempt disturb the diversity and richness of nature beyond repair. In our industrialized part of the world, we use or consume ever more of nature even if our vital needs have been satisfied for a long time.

(Jon Tveit)

Strong words! I suppose that Jon Tveit accepts the distinction between having and assuming a right. What I am alluding to here is finding out if there might also be, among experts, people who spontaneously employ expressions such as "We do not have the right" with respect to destroying the conditions that support life on the planet: thoughtless breeding of children in Norway makes it difficult to work against thoughtless breeding of children in Africa.

The blind forces of nature herself limit the populations of different species. Are these forces not sufficiently strong to set boundaries for human beings? Is there a need to propagate limits, and is there any use in moralizing? "No" is a common answer to such questions. What follows is an example of something reminiscent of this attitude:

Do human beings have less of a right than dinosaurs or deserts? Is humanity part of the life on Earth, or do we consider ourselves qualified to rise above it? . . . The dispersion and development of the human species will find its natural limits, and nature will secure this by herself.

(Bo Wingård)

Is it even questionable to employ the word *right* as done in point 3?

I am in awe before the word *right* . . . "ought not" is better than "has no right to . . ."

[Speaker not identified by Naess]

The expression "we have no right to . . ." has a sharp ethical intention,

which I am anxious to maintain. "We ought not . . ." is too submissive for the purpose.

In the context in which the expression is employed in point 3, the ethical point may be elaborated in terms of *natural law*. I believe something essential will be missing in our approach to nature if there is no intuitive response to the ethical aspect of natural law, even though such a response is not necessarily entailed in acceptance of point 3. It will be sufficient to endorse the employment of the expression "we have no right to . . ." in ordinary language, as in the sense of "You are a big boy and have no right to strike your little brother (although he may have the right to slap you one)!" By using this language, I move in a different direction than Per Schreiner, who comments:

I am unable to see the word *right* as making any sense in this context—we *have* the power, or the capacity. My arguments would not rest on the word *right* but would rather consider what is prudent and good. To me, the question is one of estimating and comparing values.

Philosophical and scientific analysis of the expression "right to," as it is employed with reference to the diversity of nature, has not definitely *confirmed* its invalidity, its senselessness, or the impossibility of applying it with precision. Per Schreiner nevertheless formulates a well-reasoned opinion, which provides support for a different formulation of point 3.

I do not quite agree with the point as it is stated. The first part of the statement is a "credo," which I may accept as a basic guideline. The other part—on the vital interests—seems to express an ad hoc approach that does not deserve to be subsumed under the concept of "having a right." Another matter is that realistic and rational intervention in natural processes is required for the management of situations that are not the product of human activity. It would, for example, be wrong not to fight AIDS for the reason that diversity must be protected, both because of the overriding concern of protecting human lives and because AIDS—given that the development of the last six to eight years continues unchecked—may produce a more severe catastrophe than atomic war, and make the problem presented in point 4 superfluous.

(Per Oftedal)

Particular decisions according to the guideline *suggested* in point 3 will require our sense of judgment to handle complex circumstances. The difficulties of practically employing our sense of judgment, however, do not re-

duce the importance of principles—they merely clarify their limitations. The control of AIDS is of vital importance for humankind. When entire species of living beings are considered, virus particles are not counted.

The edifying example of AIDS provides a natural occasion for commenting on the differences among diversity of species, diversity of populations (in geographically different places), and diversity (number) of individuals. Furthermore, it highlights the distinction between extinction and a reduction in population that comes close to extinction but is capable of being supplemented by other populations (e.g., in laboratories) large enough to secure survival.

I find it difficult to take a definite stand on several singular questions, e.g., diversity, richness of nature, fishing and hunting, and the regulation of sealing. The resources may be scarce, but I understand the bitterness of Finnmark fishermen when the resources are inaccessible because political decisions bar sealing and whaling of smaller species.

(Kaare R. Norum)

A useful remark! One could also mention the complex conflict of concerns with respect to the question of preserving a Norwegian population of wolves. The long-term aim would be a Barents Sea abounding with life as it was 200 years ago—and no *bitter* fishermen!

Per Harald Grue also discusses essential matters, but they cannot be paraphrased in a few words. Here are some of his conclusions with respect to natural values such as forest zones, rough grazing areas, and other features of the cultivated landscape:

I believe it is important to underline the necessity of considering natural values, their use and exploitation, together. This seems to me to be a systematically underestimated point in the debate on environmental protection. I also believe that it is dangerous to look at these questions with a conservative outlook, which at the outset assumes that there is only one form of economic activity that may secure and preserve these values.

#### *Responses to Point 4*

*No one expressed any direct disagreement on point 4.* Remarkable! Nevertheless, I have succumbed to the temptation to attach the following comments:

I do agree, but on the condition that the reduction is carried out in an acceptable manner. There is a huge difference between enlightenment and free consent, indoctrination and forced intervention, and terror and violence, which makes obvious that some procedures may conflict with the purpose of the reduction, and that the costs implied by the method employed may outweigh the possible benefits.

The aim must be to reduce the number of people below today's level in the long run. I believe this is an aim that will eventually be reached. The question is if it will be reached in time.

(Per Oftedal)

I have claimed for a long time that Norway at least ought to facilitate a "freeze," as reduction probably will be much more difficult and probably require more time.

Traveling in Norway, I have seen how human cultivation year after year has destroyed different areas of the natural environment and diminished natural diversity. The growth in the population that has been going on since the 1950s ought not to continue, unless the structure of habitation and our way of life are changed. On a global scale, of course, these problems achieve quite different proportions.

(Jan Økland)

Bo Wingård, in keeping with his response to point 3, raised issues regarding taking action on the problems implied by point 4:

It is not certain that we have to be eager to reduce the size of the human population. It is reasonable to assume that such a reduction will come, without anyone specially chosen pressing the matter before the time is ripe for people to make the necessary decisions themselves. The reason for this is that the requirement that there be an equilibrium between the number of living beings and the resources necessary for their subsistence is inherent in nature, and therefore also in the human species itself. See how the growth of the population apparently is under control in China, because it has been discovered that the country cannot feed more than it is able to feed today. (It is strange, really, to watch Norwegian politicians worry over a slight decrease in the growth of the Norwegian population. They are of the opinion that other countries ought to watch out for overpopulation [China, India, African countries] but do not see the advantages of a decrease in the number of people in Norway. Considering the resource base of this country, the number of people living here is certainly not too small. For a large part, we

live off the production capacity of other countries.) So far, human beings (and nature) have always found a way out of the messy circumstances and the dependence on particular resources they have created for themselves. Therefore, we have no reason to be particularly pessimistic and believe that we will not find one in the future.

Only some aspects of the changes in the circumstances of life induced by human beings *can* be reversed. This holds for the extinction of species of living beings, which might add up to a million within the next thirty years. Many other aspects may be restored only by great effort, such as the ruination of approximately 5 million acres of agricultural land every year by salinization or exhaustion, about the same area that is lost because of the spread of deserts. Other areas may be saved only by establishing new guidelines for development. The annual, overall loss to development is calculated to be approximately 20 million acres, four times as much as is lost by the spreading of deserts. If the billions of poor people in developing nations choose to employ large areas for development as we have in Norway, there will be little land left for agriculture. It is one thing to come out of a "mess" alive; it is quite another to secure an acceptable quality of life.

If we assume that one Norwegian consumes forty times as many natural resources as one person in the developing countries, the cost of 4 million Norwegians will be as large as that of 160 million in the poorest parts of the world. Thus, a reduction of Norway's population is also required, as long as politics and lifestyle are not changed drastically.

Kåre Kristiansen was the one respondent who came close to offering a negative response to point 4:

Because the consequence of what is expressed in point 2 might lead precisely to the circumstances described in the first sentence of point 4, I was reserved with regard to point 2. I, therefore, also find it difficult to answer point 4 with a "yes."

From Kåre Kristiansen's statements, I infer that it was difficult not only for him to answer point 4 with a yes, but also to answer it with a no. This is of interest because the Bible can be interpreted, although on an arbitrary basis, as if it is God's will for us to procreate as much as possible, no matter how inconsiderately we may then handle his creation.<sup>2</sup> An opposing

interpretation is developed in Norway by the movement Gathering for the Creation. The ecologically wholesome publications of this movement contain instructive quotations from the Bible.<sup>3</sup>

None of the respondents associated a reduction of the human population with misanthropy. It is also noteworthy that none found it necessary to introduce the question of whether a reduction in some aspects of quality of life might result from human population reduction. Might family life be reconstructed in a way that yielded greater gratification than before by increasing interaction with the children of others? Is a more open relationship in neighborhoods and local communities possible? Surprisingly little has been published on these central questions.

#### *Responses to Point 5*

Reasonably enough, there were no direct objections to Point 5. Nevertheless, some concerns were raised:

I do not agree with the employment of the word *indefensible*, but maybe with the alternative word *irresponsible*. All actions can probably be defended with reference to some motive or other. The point is rather that the implicit philosophy or morality is lacking or is too egoistic or shortsighted.

(Per Oftedal)

I do agree completely that we do much that is both indefensible and inconsiderate, but I am much more optimistic with respect to the possibilities of rectifying the situation without lowering our material standard of living. In many ways, a revolution has been going on throughout the 1970s with respect to pollution. The efforts made have not been widespread throughout the economy, yet some of the initiatives have proved economically advantageous for society as a whole.

(Per Schreiner)

Here, finally, we have a passage that clearly represents what many call the shallow ecological movement. It may be characterized by attitudes and assumptions such as these:

- We may be optimistic with respect to the problem of pollution, which probably will decrease and become easier to eliminate in the future.

- The material standard of living in the richest part of the world may be employed as a general standard for all people.
- The economy of our society will not have to be changed dramatically. It will prove to be economically advantageous, in the normal sense in which these words are used in our society, to eliminate ecologically unsound policies.

When people hear of the contemporary destruction of nature, they easily get the impression that the harm done per capita in our time is larger than in other times. It is important to correct this impression:

Is this the case in our time only? Think then, for example, of the crude logging in the Røros<sup>4</sup> area to provide firewood for the furnace ovens, and the slaughtering of the buffalo in the United States.

(Erik Kåsa)

It is quite clear that human beings in many nonindustrial societies have behaved as thoughtlessly and irresponsibly as we do, and perhaps even worse. We are nevertheless unique by virtue of our numbers and our *capacity* for grand-scale devastation.

To Kåre Kristiansen, point 5 seemed somewhat optimistic—or perhaps naive? This goes for others as well, even if they remained silent. The sense of crisis is not apparent in all responses. Some respondents did not consider the expansion of man across the planet to have reached an extent that makes each new asphalt road and construction project a *principal* problem.

If marshland is expropriated to launch a construction project, the forms of life that belong there must find another habitat or perish. One may assume, however, that the construction project will provide room and possibilities for the flourishing of other forms of life.

(Trygve Bergland)

It is obvious that activities offering favorable conditions for some forms of life will always simultaneously deny similarly favorable conditions for other forms. What I have attempted to bring into focus in my ecological reflections, however, is how all human activities combined *together* affect the conditions for life on Earth. Trygve Bergland seems quite relaxed about the situation. Is this calmness to be envied?



*Responses to Point 6*

I must admit my surprise at finding only two negative, or at least clearly hesitant, responses to this thesis:

[T]his formulation may seem defeatist. I believe, first, that great improvement in the protection of the natural environment can be achieved at a small material expense, and that the material structure of life therefore does not have to be changed all that much.

(Per Schreiner)

Per Schreiner, in this passage, provides valuable insight into the shallow ecology movement: We shall be able to solve ecological problems without people living in the industrialized nations having to pay a heavy price for it. A new effort must be made to clean up Lake Mjøsa,<sup>5</sup> some restrictions on effluents must be tightened, but there is no real haste. Across the industrialized world, such evaluations of the situation are common. A public opinion poll would very likely show that the majority of the population shares Per Schreiner's views. Point 6 does not, however, primarily indicate a pessimistic view of the present situation, but rather an optimistic vision for the future. If changes come about as I conceive them, the quality of life will increase.

It is not given that it is necessary to change "fundamental" structures, even if the superior end of preserving the diversity of life on our globe must be accepted. It is not at all certain that the change of priorities that may be required will have to plow very deep.

(Erik Kåsa)

Point 6 was purposely vague, and the thirty-three respondents were free to interpret it in different ways, or to reject it as *too* vague. If what Erik Kåsa has in mind is freedom, equality, democracy, and the like, we do not have to *presuppose* changes. Nevertheless, a significant worsening of the ecological situation by a doubling or redoubling of the population might require that dictatorial measures be applied; alternatively, it might create chaotic circumstances in which the "right" of the stronger and more brutal prevails. The fundamental economic changes I have in mind will have to include a drastic strengthening of long-term priorities and a different understanding of the temporal perspective within which economic considera-

tions take place. The dominant maxim of “economic growth” must be eliminated or provided with a content drastically different from that associated with it now. New forms of communal life must be developed as fiscal, and other circumstances, be they by design or otherwise, make it difficult to breed more than two children.

I do agree that an improvement presupposes changes of attitude as pointed out in point 6. Whether these will be experienced as “delightful” by those affected, I am not quite sure. There is an inherent paradox in the fact that insofar as the enjoyment of a number of “goods,” like cars, holiday dwellings in the country, fishing as a sport, etc., is the privilege of a quite small group (“a privileged class”), there is no knowledge of the damaging effects. After the masses for generations have worked to achieve a standard of living that provides access to these same goods, rules are developed to bar them from realizing their goals. I am afraid that the realization of the conditions mentioned in the first sentence will constitute a rather painful endeavor.

(Kåre Kristiansen)

This is obviously an essential remark: a change in attitudes must in the first phase be presupposed to be most clearly developed among the economically best off. This concerns the use they make of their capital and their economic privileges. As long as they openly favor “goods” that only a few may obtain, the broader segments of the population will tend to believe that the use of such goods is particularly rewarding. They forget that conspicuous consumption will no longer be “conspicuous” once all take part in it.

My point on future gratification should have been omitted or modified. However, in some nonindustrial cultures, gratitude and joy in the sense of communion with nature has been a major topic. It is *possible* for us to reach such a distant goal.

It is an interesting feature of the answers to point 6 that they are brief. Kåre Kristiansen wrote the second longest one. It might be that the respondents consented to point 6 as a consequence of their consent to the preceding points. Many may also have found parts of point 6 unclear. Next is a response from Vidkun Hveding, which seems to have been reflected on thoroughly (as did his contributions to the debate on the Mardøla River regulation):

I do agree to the demands presented in the first sentence. With regard to the second sentence, “joyful experience” is a hopeful expectation that I share. The last part (on the dissolution of the motives that support the belief in the so-

called conquest of nature) I do not understand, even when considering the commentary on "the shallow movement." For a human being like me, born and bred by nature, it is an incorporate orientation ("an imperative necessity") to relate myself to nature in a way that secures the continuation of my existence. A tree, a fly, or a creek will not be "concerned" with my existence, but relate to me on their own conditions, if we meet. A "conquest" of nature then appears as senseless. Nevertheless, I do very well understand that a shortsighted "conquest of nature" may strike back terribly, and exactly in the sense sketched here.

Vidkun Hveding agrees on the conditions for a significant change. The assumption that a majority shares this view was the primary motive for conducting this investigation.

What Vidkun Hveding otherwise has to say perhaps testifies to an underestimation of the growing sense and understanding of our relations with all life. The "identification" that this increase provides for, makes it possible to see the experience of concern for other forms of life and the wholes that maintain them as *concern for oneself*. The concept of "self" that is implied in "my" self-realization is wider and deeper than the ego, which is considered in the popular versions of Darwinism. Technical and scientific insight today make it theoretically possible for a human population of reasonable size to live in a much more joyful and enlightened relationship with nature.

### *Responses to Point 7*

My formulation of Point 7 was unsatisfactory. Forty-one words should perhaps suffice for achieving a higher level of precision? I considered myself obliged to suggest *something* about how the changes mentioned in point 6 would affect our lifestyle. The result was, unfortunately, the presentation of some slogans. I would have needed much more space to elucidate them in a sober and objective manner.

I find it very hard to respond to this question with a yes or a no, as it seems to me to be expressed very much in terms of what I consider slogans of the movement for environmental protection.<sup>6</sup>

(Per Harald Grue)

Many found themselves able to provide an answer despite these weaknesses:

To increase quality of life instead of the standard of living in this country is in harmony with my view. Yes, a reduction of the standard of living for large groups would be for the general good.

(Jon Tveit)

Agreed, but I presume that before a utopian attitude can develop, humanity must go through a time of distress, during which the consequences of the present development are recognized in all parts of the world.

(Per Oftedal)

Yes, in time, in our society. But how large a part of the world do we represent? What about the millions of hungry people, who do not merely live from one day to the next, but who also become ever more clear about the fact that we, in our part of the world, live in affluence at the expense of a slight increase in their standard of living? When will we start taking this problem seriously? When will we be forced to do so? Will we accept being forced, or will we take the matter into our own hands? Perhaps the pessimistic outlook on the future resides precisely in this question. It seems very hard to believe that a majority in our country will start reflecting on quality of life unless we, one way or the other, are awakened by someone from the outside forcing us to handle these matters differently.

(Bo Wingård)

I agree in part. But no matter how we twist and turn this matter, the question of the *means* will be central. I do not believe in any antitechnological romanticism in this context. The development can only move in one direction: farther ahead. All we can muster of science and technology must be geared toward new goals, e.g., to achieve a stable balance among different forms of life, instead of completing a "conquest of nature" (a particularly primitive goal).

(Ivar Øye)

This may be right in principle, but it is probably impossible to accomplish in practice. I suspect that I myself, as well as most other people, have an understanding of the quality of life that presupposes a highly developed technology, and therefore will be irreconcilable with ecological equilibrium.

(Erik Kåss)

A "highly developed technology" is to me today, however, one that does not have a dramatic impact on the material world and requires relatively few material resources for its employment compared to the satisfaction it provides.

I interpret what Erik Kåss expresses as a very important and honest

confession. Maybe “ecological equilibrium” can be achieved by combining changes both in how “most people” regard quality of life *and* in how they view advanced technology. Is it the opinion of Bo Wingård (see the quotation above) that some sort of equilibrium will appear, so to speak by itself, when the time is ripe? Will the situation, sooner or later, make most people recognize that materially defined luxury will not work whereas the technology I consider to be “highly” developed is exactly the one that contributes to an equilibrium? The way I see the situation, organizations such as The Future in Our Hands and Alternative North<sup>7</sup> do essential work raising such questions, even if they are “ahead of their time.” Per Schreiner, as may be expected from his earlier responses, seems to mean that a relatively high material standard of living *and* equilibrium are possible, but *also* that we have much to learn from organizations like The Future in Our Hands:

I believe that large groups in the affluent Norwegian society still have their lives constrained because of material wants, including housing and child care. There is much that is valuable in The Future in Our Hands and Common Sense,<sup>8</sup> much to learn about how more can be extracted from life under given conditions. My arguments would, nevertheless, depart from accepting that high material standards themselves are good, even if it is necessary to be aware of the cost of maintaining such standards because of the stress they produce both for oneself and for one's surroundings, and through the strain they place on the natural environment. The last problems are perhaps the ones I would emphasize the least, because I am of the opinion that such problems to a large extent may be avoided at small material costs.

One response, the one presented by Finn Gran, may be distinguished from the others because it comments on the questions instead of answering them directly—except for point 8. I suppose that many of those who did not answer at all would have done likewise, if they had decided to answer. Therefore, I find it appropriate to quote some characteristic comments from Gran's letter:

Regarding point 1:

Changes in the “climate” and the conditions of life on Earth have probably—usually slowly and sometimes quickly—been going on at all times. The whims of nature—and reflective as well as unreflective human action—have influenced natural values. Human beings must, I suppose, themselves be considered a part of “nature.”

Regarding point 3:

Human beings have by their “interventions,” e.g., through the development of a civilization, made it possible for you and me to *enjoy* nature in different ways. What would you have made out of your life by yourself, without the access to food, wine, proper housing, etc., produced by modern means? It is quite unthinkable to exist without access to such fundamental goods (tools) as, for example, energy.

Regarding point 7:

A high standard of living is in my view a condition for a good quality of life. Without an advanced economy, technology, medicine, etc., a happy birth, childhood, youth, old age, etc., are not possible. What goods are the “environmentalists” themselves willing to forsake? What about you, for example?

Regarding point 8:

Yes, and those who do not accept all your points nevertheless bear full responsibility for the welfare of the coming generations.

This article is not the right place to air my own thoughts in detail, but I am unable to restrain myself completely.

What worries many in Norway today, among other things, is the *kind of increase* in the average material standard of living since the mid-1950s. If we consider the needs for security, companionship, healthy nourishment, stable circumstances for family life, housing and proximity to the workplace, local community, and so on, the changes have, particularly in the 1970s, had little to do with an increase in the quality of life. The Future in Our Hands group has provided, and still provides, good answers to the question of how quality of life may be enhanced without stimulating the “consumerism” that today, to a large extent, is identified with high material standards of living. This consumerism is both unrealizable on a global scale and ecologically destructive. For these reasons alone it must be stopped.

Tens of thousands of Norwegians would gladly rest contented with a material standard of living that in many of its essentials would be no higher than it was during the Second World War occupation. Many more would “tolerate” a reduced consumption of material “goods” *if* the reduc-

tion were part of a plan for protecting Norwegian nature and increasing participation in global efforts to protect the conditions for life in general. The support for point 7 bears witness to a very serious dissatisfaction with our care for the diversity of nature; it also demonstrates an understanding of how difficult it will be to "turn the tide."

The question of whether we in Norway today trade off the fundamental ends of life for perfecting technically interesting means is discussed by Vidkun Hveding:

I do agree to some extent. A real concern for ends must imply a certain interest in the means necessary for reaching them. What I agree about in particular is that the puritan industrial culture, which for a couple of centuries has provided a mighty push toward the fulfillment of some partial ends, has restricted our attention to the means at the expense of the ends to an extent that (no longer) is for the good.

It is impossible for me to leave point 7 without citing a contribution that I characterize as touching:

This I do agree about completely. . . . We have, however, only been able to live up to these goals in a rather helpless way, since the search for what we ourselves conceive as quality of life, in reality also is an egoistic endeavor.

(Olav Hilmar Iversen)

Neither the striving for a higher standard of living nor the striving for a better quality of life is in itself egoistic (in any reasonable interpretation of the word). Such striving may, however, become egoistic if not based on identification with other living beings. One who rejoices in the joy of others does not thereby become an egoist. Neither does one who, occasionally, deliberately seeks to please others in order to please himself. This "self" is not what in the terminology of social psychology is called the ego. (Please excuse me if this commentary sounds condescending!)

### *Responses to Point 8*

How do we create a totally changed attitude in the population? This is the problem. How do we relate to the people of developing countries? They ought to have a higher standard of living, and it would not be bad if the cost is for us to lower ours. If and when this happens, their requirements will rise, and nat-

ural resources will become even more diminished. The world is complicated—in particular because there are human beings in it.

(Jon Tveit)

I agree with this, as a point of departure. Resourceful individuals have a particular responsibility for contributing to a more wholesome development of our societies, but this will not happen through the formation of societies such as *The Future in Our Hands* in which we speak to a limited congregation. The problem is how to make this way of thinking a natural part of life in our culture. Can we believe that our politicians may facilitate this, occupied as they are in fighting each other over what means to apply for furthering the common goal of growth and welfare? I do not think we must despair. I feel certain that those who are conscious of the responsibility will be given the opportunity when the time is ripe. . . . When will nature produce these thoughts with sufficient clarity for persons sufficiently competent to have a lasting influence on humanity?

(Bo Wingaard)

Let Jon Tveit and Bo Wingaard have the last words in the report on the answers to the eight points! Concerning the eighth point there was, as expected, broad agreement. I will therefore now quote miscellaneous comments of interest on topics not touched on directly in my eight points.

The main conclusion concerning the degree of agreement and disagreement is clear: there was general agreement on all eight points. Some of the points were vague enough to allow for diverse and equally vague responses. Therefore I cannot, with the exception of the responses to the central first part of point 6, sort the answers into clear-cut categories. In the summary shown in table 1, I distinguish among “clearly and definitely positive responses” (++), “positive rather than negative responses” (+), and “negative responses” (-).

Table 1: Summary of Survey Responses

	1a	1b	2	3	4	5	6a	7	8	Total:
++	25	20	24	17	24	26	26	16	28	206
+	1	4	3	6	0	5	5	1	2	27
-	1	0	0	0	0	0	2	0	0	3

A critic of my investigation, Peter Reed, has stated that my letter to these experts induced them to respond favorably. It seems highly unlikely,



however, that this influence could have been strong enough to reverse the ultimate outcome of the survey if the letter had been omitted.

### Selected Topics

#### *The Role of the Expert*

On the responsibility mentioned under point 2, Per Sundby commented:

This responsibility is evident, but avoided like the plague by many “experts.” I have myself had the misfortune of experiencing both loss of confidence and professional scolding for presenting perspectives of value in a professional context and for commenting on “expert opinions” and/or “expert nihilism” concerning social problems and problems of health care.

It is perhaps unnecessary to mention that “presenting perspectives of value” is something I hoped to encourage by my letter. Something must be wrong, however, if “experts” who serve as advisers to public authorities are not “scolded” a bit from time to time in public debate. What will have happened if no such experiences are found?

The recognition that expert evaluations are neither all-encompassing nor quantitatively unambiguous often makes me ambivalent about my own role and my statements. As an expert, I believe that nuclear power plants may be built, that forests may be sprayed with weed killer, and so on. General social and political considerations nevertheless make me think that such power plants are undesirable (i.e., not because of the danger they represent but because of economic considerations, regional political concerns, antitechnocratic conviction, etc.). Similar considerations apply to the question of spraying with weed killer, although then my respect for the opposition of common people, their fears, romantic attitudes, etc., carries more weight. The simplest case is nuclear war, where all considerations point in the same direction. (As an “expert,” I have participated in an investigation of this question initiated by the World Health Organization.)

(Per Ofstedal)

I hope that Per Ofstedal, and others in similar positions, inform the public about their general attitudes even if these, at the deepest level, cannot be argued for on professional grounds.

If you, and others engaged in the environmental movement, are of the opinion that I am not eager to protect nature for its own sake, this may be an effect of my disapproval of speaking with professional authority outside of one's professional field. I have among my colleagues seen so many examples of "professorial" statements, which have been considered weighty merely because they were uttered by a professor, disregarding that he has been no more than a lightweight amateur in the relevant field. For this reason, I seldom express my opinions on topics other than those I have knowledge of as an "expert."

(Morten Gautvik)

I am tempted to say, That will not do, Mr. Colleague! The interested public ought to be informed about your priorities on questions of value, and your attitudes on questions of lifestyle. Neither can nor should your opinions as an expert be divorced from their general philosophical premises.

As an expert engaged in taking care of work that our society requires, I often feel unjustly attacked by the environmental movement, and I believe this has been harmful for the movement itself. If the matter was considered in a broader perspective, I am of the opinion that we to a large extent share the same goals, and that we to a larger extent ought to have worked together, rather than against one another, to reach it.

(Jon Tveit)

In the Norwegian debate on environmental issues, which has been quite lopsided in focusing on the regulation of rivers, statements have been uttered on both sides that should have remained unsaid. On the deepest level, we all share the same goals. Both sides, however, ought to develop a more critical attitude toward society.

Environmentalists cannot in any way accept that maintaining a high quality of life in Norwegian society requires energy to be used in today's quantities. Therefore, we have to distinguish between energy use and energy need. The quality of life depends on satisfying needs, not on increasing energy use. There is no direct contradiction involved, if the expert working to maintain production on the one hand is also warning insistently and publicly against increasing production on the other. The level of consumption in Norway today cannot be shared by all without producing terrible effects globally. Personally, I must add that I do not believe that the three kinds of goals in life—pleasure, happiness, and perfection—can be

achieved more easily with support from the overly complex apparatus that justifies the high level of energy consumption that we have today, than with the use of simpler tools. I do not know of any philosophy that claims that the achievement of a versatile and rich life requires the employment of complex means. From this conclusion stems today's deeply critical attitude toward industrial society.

This deeply critical attitude is, however, probably not shared by a majority of the 110 experts who received my letter. It is possible that many of those who did not answer share an attitude of the kind that Oluf C. Müller describes:

Guided by goodwill and common sense, my intuition tells me that, by and large, we achieve sound results from our work in this country. This is the case not the least because the so-called experts also have a sense for more than material values.

I am sorry to say that I am unable to display a correct picture of my attitudes [on the man-nature relationship] by answering the eight questions posed.

I believe that, at bottom, I am as fond of nature and concerned about it and the preservation of its different species as most people in our country. I judge it as very valuable that movements for environmental protection, and a general concern for environmental problems, have appeared. On the other hand, I have little sympathy for extreme responses—e.g., protesting professors employing direct action<sup>9</sup>—because I really believe this leads to the opposite of the desired results.

I am clearly a proponent for continued economic growth, although, of course, not at any price. The evaluation of the price is precisely what I am concretely confronted with, and this requires a sense of the appropriate in each different case, which cannot be described by answering the eight questions posed.

It has not been my intention to lecture. However, since lecturing has been alluded to, I have to admit that since I consider wonder not merely the point of departure for philosophy (Plato?) but also its point of arrival (hardly Plato's?), all definite opinions will have to seem unsatisfactory. There is little reason to believe that our "experts" at bottom feel very differently. A valuable response has the following postscript attached, reflecting on itself:

Puh . . . And how shallow, stupid, disconnected, and self-contradictory, despite revisions—which ought to have been pursued. Principles and generalizations are of interest.

(Hans Chr. Ødegaard)

***Basic Views on Value Are Neither Less nor More Justifiable  
Than Basic Rules of Logic and Science***

I have little faith in absolute objectivity, and consider it both important and correct that common people see those who play the role of experts as human beings with personal values and convictions. I do not see in this any conflict with the respect for logical and disciplined thought.

(Per Schreiner)

From a philosophical point of view it is commendable that most respondents did consent to wide-ranging statements on values and norms. There were, nevertheless, signs of discomfort expressed in this agreement. How many statements on values and norms (ethical and others) be grounded? Can they be grounded rationally? Should not experts stick to statements that can be grounded rationally?

In what follows, I attempt (in a very simplified manner, if considered from a professional philosophical point of view) to calm the distrust regarding forcefully expressed statements on values and norms. There is little point in reducing such statements to a mumble or persistently employing phrases that reduce their force ("This I consider . . ." or "This I feel . . ."). What is required is a certain kind of basic respect for fellow human beings who proclaim opinions incompatible with one's own. Stop mumbling, stand up, and proclaim your view!

Per Sundby's comments on point 3 are in this vein:

Personally, I find it difficult to understand what rights men have or do not have, without a presentation of the reasons that justify norms limiting the rights of human beings in their relations with one another as well as in their relations with nature. I have been working to create a rational grounding of certain norms for consumption and norms for human relations that are important for the protection of health and welfare, and have collected extensive empirical material for this purpose. I am not certain that the same kind of rational grounding may be found for presenting the diversity of life as a precondition for human diversity, and particularly as a precondition for social stability and for the restriction of the space within which the most destructive forces can unfold. I am still looking for a way to bridge the gap between motives for environmental protection and the motive of preventing a continued deprivation of the health and social circumstances in different populations.

In certain formulations, (implicit) statements of value expressing the

rights of man seem to appear as the deepest level of justification. A deeper level would provide a justification for such rights of man. Let us assume that these rights are grounded in man himself as a rational being, or by the creation of man in the image of God. An even deeper justification would provide a normative grounding for one or both of these statements. The work on justification will continue indefinitely, unless statements are found at some level that can be claimed as self-evidently valid. Much philosophy has been developed to distinguish between what has been counted as self-evident before and what counts as self-evident now. This is very difficult terrain.

What I want to emphasize is merely that we have to *stop* somewhere. We present something as the deepest level in the chain of reasoning that provides justification for our opinions. We do not attempt to justify statements on this level.

The expression "rational grounding" of *A* by *B* is usually employed when *A* appears as more or less strictly implied by *B*, which then is accepted as the deepest level in the chain of reasoning. If the statement *B* is not accepted as valid, we accept that *A* is no longer rationally grounded in *B*. "Rational grounding" rests on statements that in logical terms are considered postulates *and cannot be grounded themselves*.

"Protect Norwegian health!" and "Protect Norwegian welfare!" are well suited in Norway as statements at the deepest level in chains of reasoning intended to aid social and political decisions. These may then be expressed as resting on rational grounds, but the rationality of this grounding is, of course, relative to the postulated imperatives.

Chains of reasoning either have an end or form a circle. In the latter case, we ground *A* in *B*, *B* in *C*, and *C* in *A*. I cannot accept such a procedure in full earnest and therefore contend that we have to accept that at any particular time, and in any particular situation, there is a deepest level of reasoning that is not grounded. This is the case both when "facts" are considered and when evaluations of values and norms such as ethical imperatives, rules of logical inference, and so on, are made.

Some answers clearly showed that taking a stand comes naturally. Per Sundby, and most of the other respondents, does not seem to have doubted the legitimacy of presenting strong statements in matters of value. On points 5 and 6, Sundby proclaims:

I have no difficulty supporting these views, even if they should lead into deep waters regarding evidence, objectivity, or professional respectability.

When we close in on the most fundamental premises, we are not in deep waters. We simply are.

### **Conclusion**

The results of my investigation suggest that many of those close to the policy-making process consider changes to be necessary at all levels of society, politics, and ideology to protect the conditions of life locally and globally. They also indicate that at the grassroots level “experts” and “environmentalists” generally share a common view on what basic values ought to guide the effort to bring about such changes.

Given these insights, we should ask the “experts” why these values are so poorly represented in the practical policies that they participate in shaping. Finally, we should ask the “experts” how they believe this discrepancy between theory and practice can be bridged.

A heartfelt thanks goes to those who found time to answer my many questions, and to Kjell-Håvard Bråten, who aided me in the publication of the original text.

### **Appendix: List of Respondents**

Fredrik Barth. Professor, Department and Museum of Anthropology, Ethnographic Museum, University of Oslo.

Trond Berg. Professor, Nordic College of Domestic Economics, University of Oslo.

Trygve Bergland. Former Department Director, Norwegian Water Resources and Energy Administration.

Anders Bratholm. Professor, Department of Criminology and Criminal Law, University of Oslo.

Knut Dæhlin. Director General, Ministry of Oil and Energy.

Odd Steffen Dahlgård. Professor, Clinic for Psychiatry, Ullevål University Hospital.

Torstein Eckhoff. Professor, Department of Public Law, University of Oslo.

Morten Gautvik. Professor, Department of Medical Biochemistry, University of Oslo.

## VALUES, LIFESTYLE, AND SUSTAINABILITY

Tore Gjerløw. Head of Division, Ministry of Oil and Energy.

Finn Gran. Department Director, Norwegian Water Resources and Energy Administration.

Per Harald Grue. Director, Department of Agricultural Policy, Ministry of Agriculture.

Vidkun Hveding. Former Chief Executive Director, Norwegian Water Resources and Energy Administration.

Olav Hilmar Iversen. Professor, Institute of Pathology, University of Oslo.

Erik Kaas. Director of Administration, Oslo Sanitetsforening Rheumatism Hospital.

Kåre Kristiansen. Minister, Ministry of Oil and Energy.

Oluf C. Müller. Secretary General, Department of Industry.

Kaare R. Norum. Professor, Nordic College of Domestic Economics, University of Oslo.

Hans Chr. Ødegaard. Head of Division, Ministry of Agriculture.

Per Oftedal. Professor, Institute of General Genetics, University of Oslo.

Jan Økland. Professor, Division of Limnology, Department of Biology, University of Oslo.

Ivar Øye. Professor, Department of Pharmacology, University of Oslo.

Eystein Paasche. Professor, Division of Marine Botany, Department of Biology, University of Oslo.

Hugo R. Parr. Head of Technical Laboratories, Det Norske Veritas.

Alexander Pihl. Professor, Institute for Cancer Research, The Norwegian Radium Hospital.

Jan J. Qvigstad. Assistant Director, The Bank of Norway.

Roar Rognes. (position unknown)

Olav Sandvik. Director, Department of Agricultural Policy, Ministry of Agriculture.

Per Schreiner. Director General, Ministry of Industry.

Per Sundby. Professor, Institute for Social Medicine, University of Oslo.

Jon Tveit. Department Director, Norwegian Water Resources and Energy Administration.

Jon Rasmus Vale. Professor, Department of Thoracic Medicine, The National Hospital of Norway.

Olav Vannebo. Head of Division, Ministry of Industry.

Bo Wingård. Managing Director, Norwegian Correspondence Institute.

## The Arrogance of Antihumanism

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One may have such a low opinion of the human race that the phrase "live and let live," applied to the ecosphere as a whole, is considered incompatible with deep, specific human interests. Permit me to suggest that the attitude expressed by "live and let live," in the broadest and deepest sense, is specific to human beings. Up to this point, we know of no other life-form in the universe whose nature is such that, under favorable circumstances, it would more or less inevitably develop a broad and deep concern for life conditions in general.

Human beings have a sufficient natural endowment such that they can perceive and enjoy their kinship with living beings of the most diverse kinds, and care for them. To realize their total potentialities, mature human beings need communities that permit them to live out their full capacities for identification with other life-forms.

Under unfavorable social conditions, human capacities for identification do not manifest themselves. There is, however, sufficient empirical evidence to show that people in our industrial societies who are reared and educated under appropriate conditions do develop attitudes of the kind expressed in deep ecology. This occurs without their being necessarily deficient or immature in other human ways.

If we focus our attention unduly on the crudest behavior of human beings, we are tempted to form an unfavorable image of human nature. This focus tends to lead some authors to postulate that the domination and exploitation of nature are inherent in the nature of human beings, that the

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primacy of human interests implies the subjugation of the interests of other beings.

On this planet only human beings formulate general norms about equal rights, and perhaps only human beings have a nature that calls for identification with all life-forms. This makes it awkward to use the term *humanism* to refer to attitudes that go against human nature in a philosophical sense. Present-day anthropocentrism is inhuman in my view. It is specifically human both to see and formulate the limitations for the role of human beings in the ecosphere and to experience their identification with the whole.

In criticizing the "homocentrism" or "anthropocentrism" of the shallow ecological movement, we are pointing to an image of man as an immature being with crude, narrow, shortsighted interests. It is an image well suited to the kind of policies that predominate today. I refuse to accept the view that a high level of human self-realization can be reached by the satisfaction of mere narrow, insensitive, shortsighted interests.

"Obviously the most humane goal of mankind is the improvement of the human lot" (Watson and Smith 1970: 25). Yes and no! Yes, only if "human lot" is defined in harmony with the need to satisfy basic aspirations such as the realization of egalitarianism as defined below. Then the quoted sentence does not say much more than this: . . . given a set of value priorities for humankind. In relation to such a set, the most humane goal is the improvement of conditions for realizing the priorities.

If "human lot" is defined more narrowly, then something will be missing. Then we would have to add "But surely it is just as specifically a humane goal to improve the lot of a broader class of beings!" This holds even if we admit that the fight for mere biological survival must sometimes considerably narrow down our goals. Such temporary minimum goals, however, are not the most humane.

Human beings have no less right than any other life-form to change the world. I do not see that deep ecology needs a *general* norm against human efforts to change ecological conditions on Earth, but Barry Commoner and others are right about the present-day generation of human beings when they claim that any major man-made change in natural systems is "likely to be detrimental" to those systems. Today's combination of ignorance, arrogance, and narrow perspective justifies this pessimistic view. If, however, human beings in some remote future could avert a glacial age, or

the impact of a comet, then I tend to think that no norm should be used against interference of this magnitude in natural systems.

Egalitarianism applies to human beings: they have the right to live and blossom, *just as* other life-forms do. This right is in principle the same and does not admit of degrees. (The term *egalitarianism* should perhaps not be used for this equalness, for it is also used in many other conflicting ways.) Each life-form has its own nature, which determines what kind of life gives maximum satisfaction. For example, among bears there are differences in lifestyle (some bears not only kill for food but also maim and cripple).

It may sound paradoxical, but with a more lofty image of maturity in human beings, the appeal to serve deep, specifically *human* interests is in full harmony with the norms of deep ecology. This is evident, though, only if we are careful to make our terminology clear. This terminology is today far from common, but it may have an illuminating impact. It proclaims that essentially there is at present a sorry underestimation of the potentialities of the human species. Our species is not destined to be the scourge of the Earth. If it is bound to be anything, perhaps it is to be the conscious, and joyful, appreciator of this planet as an even greater whole in its immense richness. This may be its “evolutionary potential” or an ineradicable part of it.

Is today’s large-scale deforestation “natural” for human beings? It depends on our terminology. In my terminology: no. There are others, though, who seem to think that a norm against destruction would thwart the human species in “its natural behavior” (Richard A. Watson). If we are to refer to how human beings actually have behaved lately: YES. Why not adopt a kind of terminology with deep roots in the past, the *kata-physis* terminology. To live “according to nature” is for human beings not just to live without any bearings.

It is deemed natural for a species to show preference for its own interests over the interests of any other species. In a society that fulfills human aspirations, the mature member shows preference for its interests over the interest of any *single* other species, but only because human interests concern greater wholes in space and time. The mature member is a friend of the Earth. Their deepest interests are not destructive.

If someone asks how I know this, my answer is that, of course, I do not know this—but neither do they who would maintain that mature human interests constitute a threat.

### III

## DEEP ECOLOGY AND POLITICS

## Politics and the Ecological Crisis: An Introductory Note

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“Everything is politics!” This was a powerful slogan in Western Europe during the 1960s, the years of student revolts. This slogan meant for the students that the emerging environmental movement had to be politicized. No real progress toward solving the ecological crisis would be made unless ecological problems were seen as questions of policy. Politicians had to be warned that they would be voted out of office if they attempted to block antipollution and other ecological legislation. With no powerful pressure groups advocating strong environmental legislation, most politicians felt that they could not risk moving from vague environmental promises to strong, concrete proposals. Although the student radicals underestimated important aspects of the classical “unpolitical” conservation movement, nevertheless they did have a beneficial influence on politically activating mere “nature lovers.”

In Eastern Europe, the international ecological movement was inevitably politicized, but in a wrong way. Political leaders in these countries interpreted it, or pretended to interpret it, as an effort to undermine centralized industrial projects, and thus as a subversive activity. Consequently, even less was accomplished by the movement than in Western Europe.

It is important to note that Rachel Carson's political *Silent Spring* (1962), from which we date the beginnings of the international deep ecology movement, insisted that *everything*, every aspect of society, not just politics, would have to be changed. The controversy that Carson's book

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elicited brought to light the issue of the covert cooperation between the U.S. Department of Agriculture and the pesticide industry. The uproar stemming from Carson's charges against the pesticide industry made it clear not only that very powerful pressure groups would influence votes against necessary changes in the direction of responsible ecological policies, but also that those groups had the clout to monopolize the mass media with counterinformation. For example, they claimed that there was no reason to ask for significant changes because the environmentalists were exaggerating; that new technologies, various natural science projects, and a few environmental laws were all that was needed to solve environmental problems and then they could get back to business as usual.

Consequently, it was not deemed necessary to hold discussions and engage in dialogues concerning the fundamental philosophical issues surrounding the ecological crisis. It was not necessary to question the deepest premises of the way of life in the rich, consumerist nations. Understanding of Carson remained at a shallow level from the point of view of premise/conclusion relations.

Ecologically beneficial technologies, such as solar energy, were invented, but they could not be introduced on the large scale required without strong political backing, and that was unavailable. As the tremendous social and political obstacles to the needed ecological changes were exposed, unhappily only a small minority of people in a minority of countries stood firmly behind the necessity to make these changes. Unfortunately, that is the situation even today.

It is appropriate to talk of the "deep" and the "shallow" ecology movements as being characterized by marked differences in argumentation patterns. The deep ecology argumentation pattern was generally rejected by industry and most of the public as leading to a blind alley, and as being pernicious because of its alarmist and even subversive character. I refer to this as an *argumentation pattern* because the differences between the deep and the shallow movements are not always discernible if we focus only on individual arguments. For example, members of the deep ecology movement support many of the arguments made by shallow ecology proponents for certain changes, such as the move toward technologically "green" products.

Because of the multiplicity of political parties and the relative ease with which they can be formed in Western Europe, the politicization of the

ecology movement is easier to trace there than in the United States. It would be wrong to suppose, though, that supporters of the deep ecology movement in the United States have been politically passive. Their politics have generally taken the form of infiltrating and influencing the two major political parties, the Democrats and the Republicans. There also have been occasional political victories, such as the passing of laws requiring major industries to choose less ecologically sensitive areas in which to locate new factories.

### **Ecological Sustainability**

Moving now to the more philosophically fundamental issues of ecological politics, I wish to deal with the question, What are the *means* and what are the *ends* in the political fight for responsible ecological policies? With regard to ends, I propose the following axiom: *Long-range local, district, regional, national, and global ecological sustainability is the criterion of ecologically responsible policies as a whole.* Unsustainable policies can be allowed only as necessary ad hoc evils, but that tolerance must be only temporary. When the norm of “sustainability” is used in the following discussion, it refers to the sense of encompassing sustainability as described in the above axiom.

It is now largely accepted among politicians that some sort of sustainability is a necessity. Therefore, one should be prepared for usages of the term that are both much narrower and much weaker than the one suggested here. It actually may mean very little when a government or government-dominated agency declares a policy ecologically sustainable. The same holds for the term *biodiversity*. “Maximize biodiversity!” is a very strong norm as promoted by conservation biologists, and it is derivable from our axiomatic norm of sustainability.

The goal of ecological sustainability is, however, only one of the goals of a green society. A great deal of valuable literature has been devoted to outlining the characteristics of a green society, and it is important to retain a vision of what we would consider a perfect green society. Among the proponents of the ideals of a green society, there is fairly substantial agreement that an established green society will have reached three main goals, of which only one is ecological sustainability. The other two are the goals of the peace movement and the goals of the social justice movement (if we al-

low the term *social justice* to have a broad meaning that includes the elimination of large-scale human starvation and subjugation).

It is often asked, What are the politics of the deep ecology movement? Do not deep ecology supporters have a political program? These are badly posed questions, for there is no green-party political program derivable from the views that the supporters of the deep ecology movement hold more or less in common.<sup>1</sup> Furthermore, the movement exists in many countries, and those countries have different traditions and various political systems.

Considering the accelerating rate of irreversible ecological destruction worldwide, I find it acceptable to continue fighting ecological unsustainability, whatever the state of affairs may be concerning the other two goals of green societies. I find this to be so despite the completely obvious requirement that there needs to be significant progress toward the goals of the peace and social justice movements in order fully to reach ecological sustainability. Because of the unique features of the ecological crisis, many political initiatives and goals relating to its solution must proceed with only minor reference to the ultimate goals of a green society. The "greening" of policies must be constantly kept in mind, but not necessarily the ultimate steps toward a perfect green society.

If there is any doubt concerning the need to act quickly on a number of ecological fronts, consider, for example, the depletion of our forests. The World Watch Institute's proposed worldwide reforestation project (1988) estimates that it will take an expenditure of between five and ten billion dollars from the year 2000 onward to save and replace our forests. We are now even more clear in our understanding of the differences between a forest and a species-poor plantation of trees, and know that the costs of reforestation will be even higher than originally anticipated. The rich countries, of necessity, will have to bear most of the burden of these costs, if it is to be done at all.

In the early 1970s, there was substantial agreement on a number of features of green societies—for example, decentralization and the establishment of strong, fairly self-determining local communities. It is now clear, though, that in areas of the world where pollution and other environmental problems are still minimal, the people who hold influence or power tend to favor the kinds of development that people in more polluted areas increas-

ingly resist. To save what can still be saved in areas contributing only moderately to the ecological crisis, political institutions in larger, more polluted areas must pressure the smaller, less-polluted and damaged areas to adopt restrictions on ecologically damaging practices. The anger, indignation, and fierce resistance of the more local political institutions underscore the present deep-seated pressures to continue to “develop” along the lines of the most exploited areas. I put the word *develop* in quotation marks because it is development inconsistent with the requirement of ecological sustainability. The unfortunate necessity of occasional coercion can be justified in part by an application of the norm of *universalizability* (i.e., that if ecological sustainability is a necessity for any area, then it is a necessity for all areas).

### Classes of Ecological Unsustainability

Let us suppose that we were able to group areas into three classes: (1) those with a level of unsustainability considerably below the average, (2) those with roughly an average level of unsustainability, and (3) those considerably above the average level of unsustainability. Let us further suppose that a political party in the first class argued that certain unecological policies could justifiably be pursued because their implementation would merely bring that area nearer the average level of unsustainability. This political party probably assumed that others in the first class would not do the same, for if they all did, it would significantly increase the average unsustainability, a situation contrary to what all classes now agree must be avoided. In this case, people in the first class are asked to follow a norm of forced status quo in terms of their degree of unsustainability, that is, a forced limitation on their self-determination in these matters. This course of action would protect those areas in the third class so that people there would not have to go through a severe period of transition toward sustainability. Thus, a thoughtless increase in unsustainability would be prevented, as well as the resulting painful change of direction. This is not a question of arbitrary coercion but rather of sanctions drawn within the limits of carefully considered legislation.

The above line of reasoning and proposed solution would, no doubt, be resisted within some “radical” environmental circles. The ghost of ecologi-



cal dictatorship is liable to be raised, as well as that of undesirable hierarchical sociopolitical structures. Therefore, it is important that as many people as possible articulate clearly the means and goals of policies that lead to a decrease of unsustainability. One may justifiably object to the above classification scheme on the grounds that some areas exist that have attained full sustainability (i.e., human and other activities do not result in a decrease in the full richness and diversity of life-forms in the areas). Such areas, though, are few and small; not even Antarctica qualifies as fully sustainable. The objection may also be raised that it is more important to apply such a classification scheme to states, countries, and other political and administrative units. If we neglected geographical areas, however, the Earth's natural subdivisions would be ignored. For example, the eruption of Mount Saint Helens decreased the richness and diversity of life-forms over a large area encompassing several political jurisdictions; it went from class 1 or 2 to class 3 in a very short time. Thus, the geographical point of view of the Earth is of some importance in devising these classification schemes. Further, the biodiversity of the Mount Saint Helens areas should be restored—in short, we wish to protect the richness and diversity of life whether or not decreases in richness and diversity are caused by human beings. Another example is the Barents Sea, which is now a large class 3 area. In this case, the “criminal” policies of several countries, together with the irresponsibility shown by certain occupational groups, have severely decreased the populations of various species of fish. It is open for discussion whether certain “natural” processes are also at fault, but the point of view taken is that, in the end, we wish the Barents Sea to recover.

At a national level, interesting conflicts along the above lines arise. If Norwegian politicians agree to increased gas production from the North Sea area, it will lead to an increase in Norwegian production of atmospheric carbon dioxide. If this happens, Norway will not be able to stay within the limits its government has promised the world it will not exceed. The government claims that the carbon dioxide production of an area larger than Norway, namely that of the European Common Market, and, of course, the world as a whole, will diminish as a result of the North Sea production. The government points out that because Norway would be exporting nearly all the gas, the importing countries would reduce their more ecologically unsound energy production from coal. If this were indeed the case, the in-

creased development of the Norwegian gas industry seems to be a step toward less unsustainability in a wider global area.

Several relevant arguments can be offered against the government's decision, however. First, long-range policy must be that of stabilization and reduction of the use of energy and, in particular, energy produced by non-renewable resources. Second, the energy used to develop Norway's gas industry and to transport the gas to foreign countries would be considerable. If such foreign countries were to indicate to Norway that they had a coal-reduction program, and were then to ask for gas to replace a certain percentage of their coal, the ecological situation would be quite different. The departments of foreign affairs must be drawn into these ecological considerations. At present, they are mainly preoccupied with commercial matters.<sup>2</sup> From the point of view of the deep ecology movement, both a trend toward centralization of political decisions and a trend toward decentralization must be envisaged. The policies of local communities, in many areas of ecological conflicts, must be controlled by regional and national political authorities. These again, to a much higher degree, must be controlled by institutes that are global (not only international) in scope. Nevertheless, many ideals of strong local communities formulated in the 1960s and 1970s can be retained.

### **Green Politics**

The building of a green party at the national level is occurring only in the relatively few "democratic" countries. It is necessary for green politics to spread to other parts of the world. The content of the various green party programs will have to adapt to differing political and ecological situations and will inevitably show great differences. Internal strife can be kept to a minimum by being clear about the differences between the fundamentalist and the pragmatist positions in green parties. Fundamentalists take a hard stand on ecological issues; pragmatists are willing to consider compromises for social justice's sake, for example. Some compromises will have to be made. In Norway, fundamentalism has been strong, although there is a willingness to maintain the welfare profile of the political left. The following is a short résumé of the Norwegian political program as one example of green politics in a First World country.

The publication describing the Norwegian green program consists of ten chapters, the first of which outlines the "basic values." The first two sentences read: "We who are alive today have an obvious responsibility, in relation to future generations, for other life-forms and for the global community. The Greens wish to leave behind them an Earth at least as rich and diverse as the one we humans have inherited." The phrase "global community" does not mean the same thing as "human community"; rather, it refers to the coexistence of *all* living beings in the Earth's ecosphere. Richness and diversity are intended to include deep human cultural diversity as well. Clearly, it is implied that we human beings have many special obligations toward our fellows.

Twelve points are then listed that outline the Greens' basic tenets, one of which is that current rates of economic and social development can proceed only at the cost of seriously degrading the quality of life. Other tenets hold that social and global solidarity implies reversing the trend toward growing differences between rich and poor; that increase in the material standards in the rich countries must be reversed; and that bureaucracy and the power of capital must be reduced. These reversals are the inevitable consequence of emphasizing certain basic human values, not of achieving them as independent goals in themselves.

Other basic values in the Norwegian green program include a technology adapted to nature and human beings, cultural diversity, viable local communities, and a respect for nature and life. Other key issues include an increase in the minimum wage; the redistribution of wealth; decentralization and the support of small organizations; the participation of children and the old in productive work; ecological architecture that gives small children access to free nature, not just parks; transfer of military resources to environmental tasks; global cooperation and security; and the support of groups who work for alternative kinds of societies.

The above list of key issues provides an impression of the comprehensiveness of the Norwegian Green party program. Like the programs of most European green parties, the Norwegian program tries to include the main concerns of the three great social movements of our time: the peace movement, the social justice movement, and the ecology movement. This is a formidable task and requires great discipline. In my opinion, the extreme positions within the three movements cannot all be accommodated.

For example, antiracist feelings are strong in Norway, resulting in liberal immigration policies for Third World countries. Unfortunately, these feelings often overpower ecological considerations. Because today's lifestyles in the richer countries ensure gigantic waste per capita, compared to those of the poor countries, every immigrant from a poor to a rich country creates more ecological stress. It is clear that the children of immigrants will likewise adopt the fatal consumption patterns of rich countries, thereby further adding to the ecological crisis. In my estimation, green parties, including the Norwegian one, do not sufficiently see that these feelings of solidarity and compassion, especially for children, demand a tenfold increase in contributions to Third World countries to aid in their daily fight against devastating hunger and degrading torture as a more ecologically sound solution. The main driving force of the deep ecology movement, as compared with the rest of the ecological movement, is that of identification, and thereby solidarity, with all life. Human beings are our nearest, in terms of identification with all life, and green parties should include political plans for participation in the fight against world hunger and for basic human dignity. A green program in the richest countries should include a proposal to help poor countries that are invaded by immigrants from still poorer countries. It is likely that such phenomena will increase in the future. Immigration policies must be seen in a global context.

It is a widespread practice to accuse politicians, and the heads of political parties, of being weak in their support of environmental matters, of adopting green slogans but never proposing strong actions to solve the ecological crisis. To act, party politicians must have voter support, and it is fairly clear that powerful pressure groups, whose well-organized, effective action supports special interests and influences votes, will fight any decisive ecological program. Politicians will not propose programs or projects that are unacceptable to the leadership of major pressure groups. Special-interest-group democracy, as it functions today, prevents major changes in ecological policies. Therefore, people need help to recognize the inconsistencies between statements made for public consumption and political effect on the one hand and actual behavior on the other. For example, politicians may profess strong environmental concerns but, through their actions, be responsive to special-interest groups that prevent responsible ecological policies from being adopted, or even proposed, by the main po-

litical parties. What everyone can do in this situation is to spend some time analyzing how he or she, directly or indirectly, supports the continuation of local, regional, or national policies that are ecologically irresponsible.

The special role of the deep ecology movement in political life has several aspects. It rejects the monopoly of narrowly human and short-term argumentation patterns in favor of life-centered, long-term arguments. It rejects the human-in-environment metaphor in favor of a more realistic human-in-ecosystems and politics-in-ecosystems one. It generalizes most ecopolitical issues—from “resources” to “resources for . . .”; from “life quality” to “life quality for . . .”; from “consumption” to “consumption for . . .”—and in “for . . .” we insert “not only for human beings, but for other living beings.”

Supporters of the deep ecology movement have, as a main source of motivation and perseverance, a philosophical-ecological total view (an *ecosophy*) that includes beliefs concerning fundamental goals and values in life, which they apply to political argumentation. That is, they use *not only* arguments of the usual rather narrow kind, but also arguments from the level of a deep total view *and* with the ecological crisis in mind. Supporters of the deep ecology movement do not consider the ecological crisis to be the only global crisis; there are also crises of social injustice and of wars and organized violence. There are as well, of course, political problems only distantly related to ecology. Nevertheless, the supporters of the deep ecology movement have something important to contribute to the solution of these other crises: they provide an example of nonviolent activism that will be needed in the years to come.

## The Politics of the Deep Ecology Movement

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### Some Key Slogans of the Deep Ecology Movement

By definition, what is called the deep ecology movement explicitly bases its activity on philosophical or religious premises.<sup>1</sup> These can differ considerably without disturbing the fairly uniform character of the aims of the movement's supporters. I shall quote some statements typical of those environmentalists who support what is now often called deep ecology.

1. "Earth First!" This is a slogan expressing the opinion that the maintenance of the richness and diversity of life on our planet must be considered a first-priority goal. It supersedes the goal of a maximum number of people with a maximum standard of living. It supersedes any other goals but implies the maintenance of a population of human beings sufficient for cultural diversity and a high quality of life. This is accepted because it is necessary for realization of the maintenance goal for the Earth itself.
2. "Why more than 100 million human beings on Earth?" This rather rhetorical question is posed to familiarize people with the conception that the present-day size of the human population has a tremendously negative impact on conditions for life on the planet and that a long-term plan for substantial reduction would not threaten life quality. Of course, the plan would have to be consistent

This article was reprinted with permission from *Wisdom in the Open Air: The Norwegian Roots of Deep Ecology*, edited by Peter Reed and David Rothenberg (Minneapolis: University of Minnesota Press, 1993), 82–99.

with the basic rights of the human *as a living being* and never resort to crude coercion.

3. "An injury to where I belong is an injury to me!" This slogan reminds us that the human self is a part of many gestalts. The skin is not our limit. Therefore, the term *environment* is not popular among some supporters of deep ecology, because an environment may imply the separation of an organism from its surroundings and, as such, does not foster feelings of participation, identification, or expanded notions of the self.
4. "Animals, plants, and landscapes have intrinsic or inherent value independent of narrow human usefulness." This slogan is used to undermine our tendency to rely only on short-term, opportunistic economic and health arguments when supporting the fight against pollution, resource depletion, the extermination of species, the destruction of ecosystems, and other calamities for long-run survival and well-being. The slogan is intended to make us fight also for the planet and its phenomenal qualities.
5. "Simple in means, rich in ends!" Human interference in the eco-sphere can be reduced to tolerable levels only if people, and especially those of us in the industrial states, adopt lifestyles requiring simpler material means. This is compatible with, or even favorable toward, richness of goals.
6. "Increase the sensitivity to and appreciation of what there is enough of for all!" This instructive slogan fights against the confusion of real value with market price: a way to maximize our ability to derive deep satisfaction from the goods of which there still are, or could be, enough. The current lifestyle of people in the industrial societies cannot become a global lifestyle without irreversible and colossal destruction of the conditions of life on Earth.
7. "Mother Earth has no use for modern war!" Modern armaments and wars are ecological catastrophes. The peace movement is not just a movement on behalf of human beings. Deep ecology embraces movements for disarmament and for nonviolent solutions of conflicts.

Philosophers of the deep ecology movement may be said to be people who never found biological, political, or other arguments that undermined those attitudes implicit in childhood, whereas those in the shallow envi-

ronmental movement seem to have fallen sway to the times, letting narrow human interests dominate: other life-forms are seen as beings only to be used, enjoyed, and managed by human beings. From these hints about what supporters of deep ecology think and feel, I shall move on to discuss some political aspects of the movement.

### The Three Poles of the Political Triangle and the Limitations of Triangular Analysis

*Ecopolitics* is a widely used term in northern Europe. Sometimes it is used synonymously with what I would call “good or responsible ecopolitics.” I prefer to use it, like *ecophilosophy*, as a fairly neutral term for “politics with reference to ecology” or “political aspects of ecological problems.” Instead of “good or responsible ecopolitics” I use the term *green politics*. There are five general points about green politics that I would like to mention here:

1. One convenient way of naming the main contemporary currents and parties in industrial countries is to present a political *triangle*, with each point representing one of three main political poles (figure 3). The colors used to label the poles are familiar symbols in European discussion.

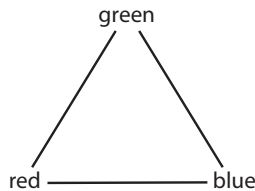


Figure 3. The Political Triangle

It is essential for supporters of green policies to maintain and show that they cannot be placed on the line between red and blue. A second dimension is needed. Roughly 10 percent of Swedish and Norwegian voters feel at home around the green pole. It is also essential to keep in mind that political abstractions such as green, red, and blue are dangerous if taken as being merely points. They are more like *magnetic* poles: dynamic pulls in more or



less singular directions. They must be distinguished, then, from particular parties or platforms themselves, which are definable in relation to the poles.

So we can try circles (figure 4). If circles are used, they are overlapping. Most supporters of green politics see a greater affinity between green and red than between green and blue, but from a broad historic and systematic point of view it is prudent to let the circles overlap equally, rejecting any quantitative interpretation of the overlapping areas.

Examples of similarity between green and blue include stressing the

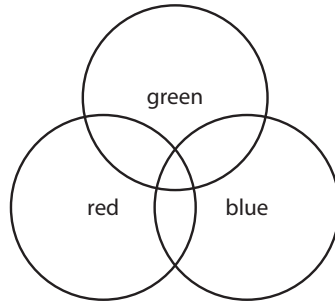


Figure 4. The Political Circles

value of personal enterprise (overlapping the blue private enterprise) and a very high priority of fighting bureaucracy. Similarities between green and red include stressing social responsibility and a very high priority of fighting undesirable ethical, social, and cultural consequences of the unrestrained market economy.

Political parties can roughly be located within or along the borders of the political triangle, but more accurately (although still in a rough way, of course) in three dimensions, using an ordinary Cartesian coordinate system (figure 5). Here each "element" (blue, green, and red) is not linearly independent. The essential point, though, is that green is *not merely another point, circle, or dimension*. It is a dynamic wavelike force, an intuition or sudden realization that should affect all points along any shallowly conceived spectrum or frontier of political opinions. Hence the British Ecology Party

makes it clear that its own existence will be rendered unnecessary by its success, as "all parties will in time become more or less ecological" (Porritt 1984: 36).<sup>2</sup> A quite ecological attitude about one's own existence!

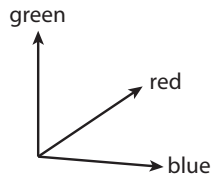


Figure 5. Cartesian Coordinate System

So, probably the most satisfactory diagram would be one that indicates clearly the more dynamic nature of the green influence upon the other two. We may see it as an axis, which pulls the others toward it as asymptotes (figure 6).

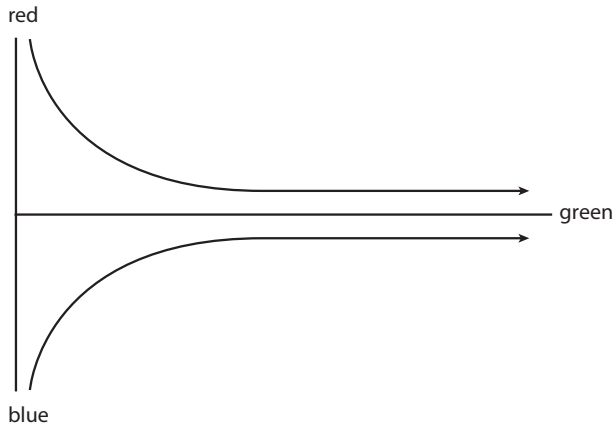


Figure 6. The Political Axis

2. Every political decision has green relevance; as a consequence, green parties must be big enough to have people well versed in each of the major issues. (No single politician can really be well informed on all.) It is not enough to take up the problems that people in general perceive as being typically ecological (nuclear energy, acid rain, etc.).

3. In industrial democracies, the supporters of green policies must keep track of how the politicians of the various parties talk *and vote* on specific matters, evaluating them from the green outlook. Their ecology "score" should be widely publicized. The same holds for party platforms, although experience, at least in Scandinavia, suggests that every party platform can look as if responsible ecological policy is being taken seriously, whereas decisions may turn out to be consistently ungreen.

4. A major part of political debate today is economic. To take part in it, supporters of green politics should try to acquire a clear conception of the main factors of their country's economic system and try to articulate how the system differs from a green economics.

One of the characteristics of green economics is the insistence on distinguishing need from demand on the market. The so-called need for more parking space is a demand that may or may not express a need. There is a need to work not far from home, but public transport may largely decrease the demand for parking space. Demand for luxury foods in a starvation area is practically zero—there is no money available and no market. The maximum demand for foodstuffs is in the richest areas of the world—to feed animals or to fuel industry—but where is the need greatest?

5. People have reason to entertain suspicions about societies planning to implement green policies: do they not ask for still more regulations (laws, coercive rules, etc.) than we already have? The tame answer is "Not necessarily!" To avoid such a tendency, organizers must constantly strive to keep down regulations. A typically blue attitude? Yes and no: private industry is, in spite of its official "free and competitive" nature, shot through with regulations, mostly unknown to the general public but no less coercive for that. The smaller-unit industry of green societies will, because of a less hierarchical power structure, among other reasons, need less regulation. Much depends on change of mentality: the less change in the green direction, the more regulations there will be.

## If-Statements and Exponential Growth

Politicians suggesting the wisdom of radical green programs have sometimes been discredited as doomsday prophets. Through the mass media the public was, in the late 1960s and early 1970s, told that there were ecologists predicting catastrophe very soon. As nothing seemed to happen that fulfilled these prophecies, the public was placated.

No well-known ecologist has *predicted* a human-caused ecological catastrophe. By the term *ecologist* I here refer only to trained active researchers in ecology, and I limit my contention to published predictions. (What some ecologists may utter in private I do not pretend to know.) Therefore, it is not today a high priority to discuss political moves under immediate threat of ecocatastrophe. On the other hand, many well-known ecologists have predicted that *if* certain trends continue, destruction of gigantic dimensions will take place on our planet within a hundred years or less.

An example of such if-statements: “*If* the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, *then* the limits to growth on this planet will be reached sometime within the next one hundred years.”

Other statements are of a much graver kind, *but are still if-statements* and still with comments implying that we have not reached a point of no return. An example: “Humanity will ultimately destroy itself if we thoughtlessly eliminate the organisms that constitute essential links in the complex and delicate web of life of which we are part.”

Such statements are meant as warnings, and the authors most likely hope that action will be taken to change politics deeply so that the warnings will not be realized as truths. Also politically significant are the predictions that the longer we wait before we start making radical changes, the more terrifying will be the necessary political and other means to reestablish planetary richness and diversity of life, including a decent human quality of life.

The doomsday terminology is the invention of *opponents* of the deep ecology movement. The same holds true for expressions like “zero growth.” This is borrowed from demography and is rarely used by supporters of deep ecology today. They criticize the GNP calculations as basically misleading as they are used in blue economics, and still more as they are used in blue

politics. Green politics cannot have as part of its program the increase of GNP, which perhaps should be read as "gross national pollution." Moreover, there is no new measurable quantity, say "gross national life quality," that could take over the role of GNP. The whole way of thinking that places such weight on a single statistic is in question.

The frantic efforts to maintain economic growth in terms of GNP mean that, on the whole, damaging interventions in ecosystems increase exponentially rather than arithmetically. When a forest is reduced in an arithmetic way, life conditions tend to worsen in an exponential way when the area approaches zero. The difference between exponential and arithmetic growth cannot be overemphasized. If you place pages of paper on top of one another, and each page is one millimeter thick, you would need a thousand pages to reach the thickness of a single meter. If, however, you fold a single piece of paper over and over again, then the thickness grows exponentially as the series 1, 2, 4, 8, 16 . . . , which means that you reach the thickness of a meter (or more accurately, 1,024 millimeters) after only ten foldings, and a thickness of 1,048,576 millimeters, that is, a thin column of paper 1,048 kilometers high, after folding it only twenty times. The public needs to fully understand the *exponential character* of growth measured in percentages.

The decrease of life quality in general is a theme that has been largely neglected in political discussions. Attention has been concentrated on immediate health problems for human beings, the economic loss through death of fish in hundreds of thousands of lakes, and, very recently, the economic loss through dying forests. The shallow approach asks for acid-resistant fish and trees, or questions the economic importance of fishing and forestry when compared with industry, or goes so far as to say, Why even have forests in West Germany if they are not compatible with the country's industrial growth? The contribution of these forests to life quality is being neglected.

### Checklist of Ecopolitical Issues

Question: What is the proposed politics of  $x$  in regard to subject  $y$ ?

$x$  = a person, an institution, a nation, a group

$y$  = any of the subjects listed below

- I.A. Politics of pollution of human environment
  - 1. short versus long time perspective
  - 2. local versus regional versus national versus global perspective
  - 3. class aspect: local versus regional versus national versus global perspective
- I.B. Politics of pollution of the habitat of other life-forms
  - 1. short versus long time perspective
  - 2. local versus regional versus national versus global perspective
  - 3. discrimination: favored versus unfavored life-forms
  - 4. politics related to specific species, ecosystems, landscapes
- II.A. Politics of resources for human beings
  - 1. short versus long time perspective
  - 2. local versus regional versus national versus global perspective
  - 3. class aspect: local versus regional versus national versus global perspective
- II.B. Politics of resources for nonhuman life-forms
  - 1. short versus long time perspective
  - 2. local versus regional versus national versus global perspective
  - 3. discrimination: favored versus unfavored life-forms
  - 4. politics related to specific species, ecosystems, landscapes
- III.A. Politics of population of human beings
  - 1. short versus long time perspective
  - 2. local versus regional versus national versus global perspective
  - 3. class aspect: local versus regional versus national versus global perspective
- III.B. Politics of population of nonhuman beings
  - 1. short versus long time perspective
  - 2. local versus regional versus national versus global perspective
  - 3. discrimination: favored versus unfavored life-forms
  - 4. politics related to specific species, ecosystems, landscapes

These three classes of issues constitute the core of ecopolitical issues in a narrow, standard sense. The above list may be helpful, but there is a wider, and in my terminology, deeper sense in which ecopolitical issues also cover many problems within traditional politics. In relation to I.A–III.B, green politics opposes the red, and especially the blue, in the following ways:

1. We have a long time perspective. We intimately feel that we are parts of an emanation of life wherein a million years is a short time. We are concerned with soils that can be destroyed in five minutes but that would take a thousand years to restore. We are unimpressed by short political election periods and reject the superstition that a few years of research and technical development can solve any major ecological problems of any kind. Nevertheless, we must be alert and try to anticipate the next moves of our governments and their primary unecological agencies (e.g., the so-called forest services; the Environmental Protection Agency in the United States).

2. Green politics combines local and global perspectives, trying to tone down the excessive role of national and international structures. What is known as "national identity" should be based on local communities. Interlocal communication largely supplants international. So-called assistance to the Third World (e.g., by the organization *The Future in Our Hands*) is done through direct contact between local communities. It is difficult to avoid governmental institutions, but nearly a thousand global nongovernmental institutions are headquartered in Geneva and can be used to facilitate interlocal rather than international contact.

Education will largely concern the local and the global. Green schools are available in many places today, but there are thousands of graduates who cannot find work along their preferred lines. The public and the bureaucracy should come to realize the great value of the interdisciplinary education provided by such schools, and thus welcome their graduates heartily into many kinds of respectable employment positions.

The main arguments used in Norway when rejecting membership in the European Common Market (EEC) in 1972 were mainline ecopolitical arguments (issues I.A and III.B). We rejected centralism endangering local and "peripheral" populations, forced worker mobility, increased competitiveness in the world market. We said no to the introduction of four times as many officially accepted medicines, and we said no to opening still wider our gates for immense European and multinational firms.

3. Green politics supports the elimination of class differences locally, regionally, nationally, and globally. The global aspect makes it clear that practically everyone in the rich industrial states belongs to the global upper class. This is easily forgotten by trade unions and by some Marxist-Leninists who still unilaterally focus on the liberation of the workers of their own country.

The core of class suppression may be seen basically as a cross-generational

suppression of life-fulfillment potentials in relation to fellow beings, or in my terminology, possibilities for Self-realization.

The politically significant *green-red alliances* in Scandinavia use this name because green political issues are mostly conceived rather narrowly as comprising only issues I.A through III.B. If we adopt such a narrow concept, a great many political problems seem to fall outside the green framework. However, all political issues can be considered from a green perspective.

To finance ecologically important projects, supporters are dependent on private and public funding. This means that one usually has to give priority to projects that people with power or people with money think should have priority, and then hope that some of the money and equipment can be quietly put to work on projects that should have priority according to deep ecology. In short, politically accepted tactics must be taken seriously, however distasteful this may seem. Talk more about cancer, and dollar bills may come flying through your open window! The same is true for the fight against *easily seen* effects of pollution. Acid rain is now taken seriously in West Germany because an important pressure group, the owners of forests, discovered that they could *calculate* losses in terms of money, and because more and more people could *see trees dying* all around them.

The political function of science deserves to be mentioned. The belief is widespread that because some scientists now work for governments, politics has become more scientific than in the days of Louis XIV. There is little evidence to support this. In ecopolitics three main factors operate against scientific influence. First, politicians ask ecologically relevant questions that scientists find impossible to answer except perhaps after long periods of large-scale research. So politicians conclude, Science has *not* found it dangerous or detrimental to do such and such; therefore, why not do it? Or, as in Britain today, the government says that the theory of acid-rain destructiveness has not been scientifically *proved*, so let us postpone costly methods of control for at least five years.

Second, the cautious language of some scientists (or philosophers) may always be used to postpone. Third, the government knows that scientists do not always agree with one another. One or more scientists can always be found who do not publicly condemn unecological policies, and these are then given power. For reasons already mentioned, saving spectacular animals receives better financing than saving more modest creatures that are more important for their ecosystems. Giant pandas and California condors



are showpieces. It is estimated that recovery efforts to help the condor will cost \$25 million over the next forty years. Tactically, propaganda in favor of the spectacular may pay off, but tactics may go too far.

The recent effort in Australia to save toads crossing highways on their way to breeding sites by use of road signs shows the way to a more "democratic" and "egalitarian" ecopolitics. Philosophically, the trend is remarkable.

### Malthusianism

It is of crucial importance for the political left's efforts to limit human populations to eliminate certain misconceptions about Malthusianism. Malthusian theory has two parts, one of which is acceptable and important from a green point of view, and one of which is completely unacceptable.

The first part concerns food increases versus population increases. Let us say that there are one million people in a territory, and let us suppose that they get food by cultivating one square kilometer—using fantastically "advanced" technology. Let us further assume that the population doubles very slowly, say every hundred years. Even then, it is clear that the geometric (exponential) ratio of increase makes our planet overcrowded after only a small number of centuries. The number of square kilometers on Earth is finite! Malthus makes this important point by considering the likely effects of "unchecked" population growth. Today, human population is largely unchecked, and it would be a Herculean task to check it.

From theoretical demography Malthus jumps to social philosophy and politics. To understand Marx's hatred of Malthusianism, one must read Malthus's most extreme views: everyone must delay the establishment of his own happiness until, through his labor and savings, he has put himself in a situation in which he can provide for the needs of his family. The man responsible for disobeying this injunction should rightly be punished, even if this causes his wife and children extreme suffering.

To the punishment therefore of nature he should be left, the punishment of want. He has erred in the face of a most clear precise warning, and can have no just reason to complain of any person but himself when he feels the consequences of his error. All parish assistance should be denied him; and he should be left to the uncertain support of private charity.

(Malthus 1872)

What also infuriated Marx was Malthus's talk about laws of nature and laws of God. Nothing could possibly eliminate poverty; misery was a scientific necessity!

The hatred of Malthusianism is worth mentioning because it may have indirectly led political parties on the left everywhere to shun any talk of human population control by political means. To rationalize this negligence, which is so dangerous from a green point of view, the most improbable views about salvation through industrialization have been current in the Third World since the 1920s. In India, for example, it has until recently been common to point to the population density of England or Holland: population control was said to be unnecessary because "industrialization in these European countries shows that Malthus is wrong! The greater the population, the higher the standard of living for all!"

In Scandinavia and perhaps in all the rich industrial countries, it would today be politically suicidal to propose plans for population reduction. From a green point of view there are, however, only two options: either a complete restructuring of economy and technology, or population reduction. It is to be deplored that groups near the red pole in politics tend to neglect (human) population problems and that those near the blue pole forget that one more baby in the overdeveloped countries is a much graver ecological threat than one hundred more in the slums of Calcutta.

A person active in politics should try to make it clear to the public that he or she as a private person may entertain some views that are completely unrealistic in terms of accomplishments within election terms but that nevertheless are important for his or her personal political motivation. The impact of continued population growth on conditions of life and on the ecosphere in general is intolerable and is still increasing geometrically. Even if it is *politically* suicidal to plan changes of this dimension as part of a political platform, it is irresponsible on the part of the politically active not to admit that they as private persons entertain these green views. If these views are hidden, the many people who do not play an active part in politics, but entertain radical green views, feel even more powerless than they are. They get the feeling that taking part in the struggle for power is incompatible with having green views.

### The Rights of Living Beings

"Human rights" terminology has had a significant impact on politics that has been largely beneficial. Since 1945 minority groups in many countries have fought against discrimination and cruelty using rights terminology. As long as this has political impact, it is advisable not to give up the expression "*animal rights*." The confusion about the term *rights* in philosophical and legal-academic milieus does not constitute a decisive counterargument. At least in some countries, the talk of rights of animals does not confuse people and is endorsed by the majority.

In a vast number of texts, the substitution of "human and animal rights" or "ecosystemic rights" for just "human rights" improves the text significantly from the point of view of green politics. As an example, consider such a substitution in the last part of the following quotation: "In this work, it is proposed to use *overpopulation* to refer to population sizes that exceed a country's or the world's capacity to provide adequately for the enjoyment of the basic human rights of all who are born into that country or the world" (McCloskey 1983: 19). In discussions, this means that questions such as the following are often relevant: You mean *exclusively* human rights? Why do you refer only to *human* rights? What about the rights of nonliving beings? The question is to some extent spurious if one adopts an expanded notion of the term *life*, including the physical life of an ecosystem, the interaction of ecosystems, and the inherent life of the Earth as a whole. The highly successful slogan "Let the river live!" attests to the power of broad ideas of living that can cover landscapes, including mountains, lakes, and oceans.

In some contexts, though, the use of the term *rights* may be confusing. If so, it may be appropriate to eliminate it in reference both to animals and to human beings.

### The Deep Ecology Movement, the Peace Movement, and Their Campaigns

Fifteen years ago close cooperation between supporters of deep ecology and activists in the peace movement was out of reach. Rather suddenly, this situation has totally changed. Nuclear war would be an ecological catastro-

phe, and no life-forms except one are vitally interested in different political ideologies or big-power rivalries. Even the present level of armaments with its exponential growth is a heavy burden ecologically. One factor often overlooked is the mishandling, even torture of millions of animals in experiments involving nuclear radiation. These animals are living through a nuclear war today. (This reasoning may sound ridiculous at present in the face of the other horrors of the modern world, but in ten years such thinking should be commonplace.)

Some of us, myself included, favor unilateral disarmament and establishment of unheroic nonviolent defense. Today it is politically unrealistic in northern NATO nations to work toward getting out of NATO. This is not necessary, however. The basic documents of NATO establish it as a defense organization with no clauses against nonviolent defense. So, by promoting that sort of defense, we could be *pushed out* of NATO. A more politically realistic approach is a gradual introduction of antinuclear and nonviolent proposals from within NATO.

At this point it is important for activists to stress the distinction among action, campaign, and movement. The first comprises the direct *actions* within a campaign, for example, a demonstration at a particular place and time against the building of a dam, or the nonviolent obstruction of the transport of machinery on the way to the dam site. This may be part of a ten-year-old *campaign* to save a river (including, of course, its watershed) from development of some sort. Ten direct actions may be failures, but nevertheless their impact may contribute to the victory of the campaign. (Or may polarize the conflict, contributing to the failure of the campaign? That is what many antiactivists claim.) The river campaign together with other analogous campaigns may be seen as part of a *movement* of greater or lesser generality: a movement to save rivers or, more generally, a conservation movement. Many campaigns may be failures, but the movement goes on.

Politically, it has been important to clarify that the highly successful antinuclear campaign (as part of the peace movement) is after all only a definite, limited campaign. Supporters of a more radical disarmament, or of nonnuclear politics of various kinds, should not try to force the campaign to widen or change its identity. One may take part in several campaigns, but the frequent attempts to change the antinuclear campaign to cover

other goals are politically dangerous, leading to ruinous struggles among campaigners.

### Deep Ecology and the Big Political Issues

Which political traditions or systems are most likely to color green politics? Here I am using the customary vague and ambiguous terms, and let me immediately admit that I feel uncomfortable when having to use those terms.

1. Reform or revolution? I envisage a change of revolutionary depth and size by means of many small steps in a radically new direction. Does this essentially place me among the political reformists? Scarcely. *The direction is revolutionary, the steps are reformatory.*

Of course, what I as an individual think has not much weight, and I can only say that I do not feel at home with the thought that something resembling the revolutions we read about in history textbooks, or that we may wish would take place in South America, would be of help in the industrial countries.

2. Capitalism or socialism? Although there may be said to be economic policies conveniently called capitalistic, there is hardly any capitalistic political doctrine. Socialism has such a doctrine, but is it sufficiently concerned with nature rather than its own bureaucracy?

3. Relation to communism and anarchism? Roughly speaking, supporters of the deep ecology movement seem to move more in the direction of nonviolent anarchism than toward communism. Contemporary non-violent anarchists are clearly close to the green direction of the political triangle, but with the enormous and exponentially increasing human population pressure, and war or warlike conditions in many places, it seems inevitable to maintain some *fairly* strong central political institutions. Recommendations such as those contained in the World Conservation Strategy are steps in the right direction, but there are no authorities strong enough to implement them.

Experience suggests that the higher the level of local self-determination, the stronger the central authority must be in order to override local sabotage of fundamental green policies. Or is this too pessimistic? Anyhow, the green utopias, such as those of Sigmund Kvaløy, Johan Galtung, The Future in Our

Hands, Blueprint for Survival, much like the *panchayat* utopia of Gandhi, rarely provide for significant variation in occupation and social structure in general, nor do they seriously consider the need for centralized power as long as human mentality remains similar to what it is now. Local initiatives must be encouraged! There is a great difference between units of administration and self-motivated small groups of people.

### Green Political Programs from Day to Day

My conclusion here is to remind us that we need not agree upon any definite utopia, but we do need to thrash out limited programs of political priorities within the framework of current political conflicts. Our questions are of the form "What would be a *greener* line in politics at the moment within issue *x* and how could it be realized?" rather than of the form "What would be the deep green line of politics within issue *x*?" *Green is dynamic and comparative, never absolute or idealistic.*

The term *political voluntarism* may be helpful in this connection—as something to be wary of. It is a term characterizing political activity in which you think that you can rapidly force a deep change of society by sheer willpower through direct action. It was used, for example, in Marxist criticisms of students engaged in the so-called student revolutions of the late 1960s. Some Marxists said that universities are peripheral institutions: "Power inside universities does not count." The *will* to change society by means of student power is nonsensical. You must have a much broader and more realistic basis of activity. In this sense, political voluntarism is a kind of romantic delusion.

Returning to the problem of combining basic ideals of ecopolitics and day-to-day political fights for very, very limited green gains, let us consider an example that may make the complicated situation clearer.

An energy problem exists in Norway and Sweden, but it is primarily the problem of how to reduce the fantastic *waste* of energy. It is essentially a problem of how to limit the use of energy to vital needs. From the green point of view, the current level of yearly consumption is more than sufficient for any needs. Nevertheless, some supporters of green policies take part, and should take part, in discussions concerning which sources of increased energy supply have the least detrimental consequences socially and

for life conditions in general. The situation is rather awkward: the greens are led to promote decisions they detest. As long as we constantly make clear that any increase of energy production is unnecessary and detrimental, the participation in how to increase it is justified and important. At the moment, policies of stabilization or decrease of energy production should be vigorously propagated, but politically they are dead or hibernating. Or proposals for such policies have no chance of being adopted at the moment. Today, politically powerful plans call for exponential increase of energy production until 2020. So if all available alternatives are bad, this should be said, and the worst consequences should be fought strongly.

"Everything hangs together." This is still a good slogan. One consequence of the interrelatedness is that we all have the capacity to do something of relevance within a framework of our own interests and inclinations. The ecopolitical frontier is immensely long, but we can only work effectively at one place at a time. It is more than long: it is multidimensional, and the pull of the pole of greenness can be felt in all our political positions and actions.

## The Three Great Movements

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At the end of this century we see a convergence of three areas of self-destructiveness: the self-destructiveness of war, the self-destructiveness of exploitation and suppression among human beings, and the self-destructiveness of suppression of nonhuman beings and of degradation of life conditions in general. The movement to eradicate wars has a long history as a global movement. The movement against abject poverty and cruel exploitation and domination is younger. The third is quite young. These are the great movements that require intense participation on the grassroots level for the rest of this century and far into the next.

The supporters of the peace movement have always asked for policies that often have been clearly “politically impossible” for governments to accept. The same applies to the second and third movements, but today the first two can at least point to people in power who declare strong sympathy for their radical points of view. A prominent supporter of stronger NATO forces (Halvard Lange) declared that at heart he was a pacifist (which irreverently made his wife whisper, “Then I am a virgin”). Such sincere, *publicly declared* sympathy is probably not yet at the governmental level, say, in support of the deep ecology movement.

The urgency of preserving nature for “the future generations”—meaning future generations of human beings, not future generations of living

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beings—has won acclaim among power elites. What I, perhaps misleadingly, have called the shallow, reform, or nondeep ecology movement has started to have an impact on the governmental level. Environmental organizations are listened to and their advice has occasionally been used in practice. However, future generations of nonhuman beings seem to be valued, at least publicly, only for the sake of future human beings.

It is the task of dictionary editors to offer definitions of the deep ecology movement. I have difficulties in doing more than proposing a tentative formulation of the views that most supporters of the movement hold in common on a fairly general level. These are the so-called Eight Points, which I shall not repeat here.

The realization of the points requires significant changes in both the rich and the poor countries and affects social, economic, technical, and lifestyle factors. The goals *include* the protection of the planet and its richness and diversity of life *for its own sake*.<sup>1</sup> The specific kind of urgency accorded to this third movement owes to the time factor: it is obvious that delays rapidly make the ecological crisis more difficult to overcome. Wait five years and the process may take fifty years more. Such a nonlinear function of time we do not find with regard to the other two movements.

What can be more urgent than the elimination of extreme poverty and suppression? We may answer that nothing can be more urgent, but whereas the general costs are roughly constant year after year, or increase linearly, the specific character of the ecological crisis makes the cost to reach ecological sustainability increase exponentially.

Whether in a civil war or an international war, the mentality created is that of more or less complete indifference toward destruction of nature. Destruction is even used as a weapon. To ask for mercy toward nonhuman beings would here tend to be considered frivolous. The same holds when questioning the destructiveness of the gigantic military-industrial complex that is now increasingly under ecological scrutiny, as its impact is made known in wider circles.

It is evident that the goals of the deep ecology movement cannot be reached without decisive victories of the peace movement. This should add to the motivation of people using much of their time and energy within the peace movement. Some peace people have changed focus and are now active in the ecology movement, finding the change comparable to a

change of focus within a wider peace movement: work for peace with nature, for ending brutal invasions. The change of focus undertaken by prominent peace activists such as E.F. Schumacher has not resulted in noticeable polemics about the relative importance of the two movements.

The many branches of the social justice movement have a more complex relation to the deep ecology movement.

In the West, beginning with the Industrial Revolution and continuing at least into this century, labor has been treated worse than cattle. For several hundred years pollution at the workplace and in urban slums has injured the health of the underprivileged, not the privileged.

*"You* speak of environmental degradation. *We* have suffered that for hundreds of years. *You* close down a factory because of poisons, but what are the consequences for *you* and what for *us*? The managers lose their jobs, but they take a long vacation in superb nature, and get new jobs. *We* increase the legions of the unemployed, we cannot move around easily with our family, we remain in an unhealthy environment, many lose their way of life (loggers), and our problems persist."

"You say the deep ecology movement asks for widening care so that nonhuman beings get a better chance, but you should also support increased care for the underprivileged human beings."

It is quite right that deep ecology theorists, like the peace- and social justice—theorists and activists, speak publicly about the concerns they have focused on. Their writing, if they write, also reflects their specialties. It is, however, difficult to assess what they do privately without knowing them well. General conclusions about the various concerns of the supporters of the three movements are rather shaky.

It is an embarrassing scandal that the rich industrial nations do not use the urgency of work to be done to overcome the global ecological crisis as a basis for significant reduction of unemployment. The jobs in this area are clearly more labor-intensive than jobs in industry.

Looking at philosophical "schools" of the 1960s and later, one sees clearly that anarchists, Marxists, neo-Marxists, the Frankfurt School, and hermeneutics have not felt at home with the tenets of the deep ecology movement—and not just because of the special terminology of its theoreticians. This is not the place to go into professional philosophical debates, but in spite of different philosophical and terminological leanings, three

groups—supporters of the social ecology movement, the ecofeminists, and the deep ecology movement—have cooperated well in praxis, learning from each other's special activities. The frontier of work is long, and we need to express our appreciation for work done in sectors other than our own. The convergence of problems within the three great movements may be expected to increase and their impact on policies correspondingly strengthen.

It is of historical interest to trace the various kinds of physical, social, and other changes triggering the convergence of the three movements. Here I shall not try anything like that but will merely offer some general reflections about these movements, starting with conceptual considerations.

It is not by chance that I have used the term *self* in the short characterizations of the lines of thinking, feeling, and acting. The terminology suggested itself when I was trying out a conceptual unification of a normative system with "Self-realization!" as the basic norm—expressed, inadequately of course, through a single word. For those who habitually look at the three global movements with the conceptualizations of the third movement in mind, the concept of "ecosystems," not "man/environment," is central. The human self is then basically an ecological self, that is, a kind of part of ecosystems, and the doings of human beings in war and peace and as masters or slaves are processes going on with accelerating speed and causal weight all over the globe. The self-destructiveness of current policies seems clear to a great many, and it has been adequately formulated, but to "turn the tide" seems politically overwhelmingly difficult. The self-destructiveness of wars has been announced clearly since the atomic bomb changed "everything." The long-range self-destructiveness of large-scale exploitation and suppression based on race or sex or dominant economy is by now gradually being seen to undermine the exploiters or suppressers themselves. (The false masculinity has crippled the male sex.) At least this is clear if we take into account concepts of self on a scale nearer to the great Self than to the concepts of hard egos. The development of human maturity may perhaps be said to be impaired when stiffened into counterintuitive perceptions of classes among other human beings with whom one interacts. In this case, according to my terminology, there is a limit of Self-realization not being transcended. It seems, though, that most human beings most of the time have been either exploited or suppressed most of their lives. The high levels of

self-realization have been difficult, but not impossible, to reach under such circumstances.

In most cultures some animals have been taken better care of and treated more respectfully than some human beings. During the early days of the Industrial Revolution in England, this presumably was the case with pets and even pigs. In the same country, however, a brand of utilitarianism arose that strengthened the third line of thinking and feeling—that of Jeremy Bentham (1748–1832): “The question is not, can they reason? Nor, can they talk? But, can they suffer?”

So far as I can understand, all-round maturity of human beings facilitates acts of identification with every kind of living being. This again facilitates negative attitudes toward wanton limitation of the fulfillment of life potentialities of such beings. When manifest exploitation and suppression are encountered, a reason is demanded: are they necessary for the satisfaction of vital needs of human beings? The deepening and widening of the human ecological self result in increasingly limiting its own realization when exploitation and suppression are applied. Potentialities of self-realization are destroyed. In this sense, the third movement seeks to reduce the self-destructiveness of present-day globally relevant human behavior.

Within the three great movements there are a number of organizations. One kind of problem they all have is that of eager members who wish to change or, more often, to expand the basic mandates of the organization. The successful movement against nuclear weapons in some countries had to spend much time restraining members who wished to expand into a more general peace organization. That would have reduced its thrust.

Amnesty International is a tremendously successful organization within the human rights movement—part of the general, loosely connected social justice movement (in my terminology). Its success owes in part to its careful limitation to a core problem: to get political prisoners out of more or less devastating prisons through nonviolent action. Its main procedure: letters to people in power. Because of its success, some eager members (and also outsiders) are, of course, pressing the organization to extend its mandate—for example, into being a general human rights organization.

The deep ecology movement has as a general aim to participate in overcoming the ecological crisis, but supporters have in common, for example, a strong sense of the intrinsic value of every living being and the right of

each to live and blossom that is independent of usefulness. Like other movements, especially as long as it seems to be successful, it will always be under pressure to extend its mandate. Mostly, such efforts tend to confuse rather than strengthen a movement, but cooperation with other movements is obviously an important task. The contemporary complex social situation makes isolation rather unnatural.

Again, the very special situation today must be kept in mind: an increasing portion of the populace in the industrial countries are aware of the colossal changes taking place on land, in the oceans, and in the atmosphere, changes that threaten everybody everywhere. The interconnectedness of everything is manifested in a more dramatic and convincing way than in 1970 or 1980. Many of those who were young in 1970 and got some ecological education are now firmly established and influential. It is not my job, though, to trace the ecological, social, and political factors determining the historically important convergence of the three movements and the ascendancy of the ecological issues on par with the traditionally most crucial social and political ones.

### Postscriptum, 1993

I still smile, thinking about the fate of a certain criminal called Yellow Cheese (*Gulosten*) among his fellow burglars. He was also a great patriot, and the very day the Nazis invaded Oslo (April 9, 1940), the capital of Norway, Yellow Cheese ran round collecting dynamite: his personal plan was immediately to bomb the places where the Nazis congregated in Oslo. Fortunately for him and for the five-year-long resistance movement, a wiser fighter stopped him: Direct actions must be carefully planned, priorities established. Risk your life, yes, but people are needed who are not sent to German concentration camps within a week of drastic activity. Think in terms of years! Yellow Cheese understood and survived five years of fighting. Honored with a meeting with the King, he developed into a personal friend of His Majesty.

"The key is thinking BIG, both in space and in time," says Michael Soulé (1992/93: 7). Properly explained, this is not the same thing as being "moderate." Yellow Cheese was never moderate, but his later direct actions

were carefully planned and were rarely dramatic. Tactical and strategic considerations went hand in hand.

In the ecological movement there is a need to think in terms not only of days and years, but *also* of generations.

A response to the article by Soulé says a lot of things compatible with his appropriate time-scale principle: "any remaining old growth forest . . . should be afforded the highest levels of protection"; it is "unconscionable to suggest that it is not important to preserve the remaining patches on the national forests." From a point of view of appropriate time scale, a slogan like "Stop logging old growth immediately!" is justifiable, but we know that we have to select a small number of places, perhaps only one at a time, where we can try to stop logging or at least convince people that we seriously mean that no more logging should be undertaken. So we have to ask, Are there spots that have a lower priority than other spots? This is not compromising in essentials but admitting that we have neither the manpower nor the funds available to offer visible resistance everywhere. Tactical considerations? Sure, but caused by the limitation of resources—as in any protracted warlike situation, except that we are trying to remain strictly nonviolent.

In short, let us be able to join short-range and long-range considerations, and remember that the long-range considerations in no way should diminish our concern for the local in time and space.

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