

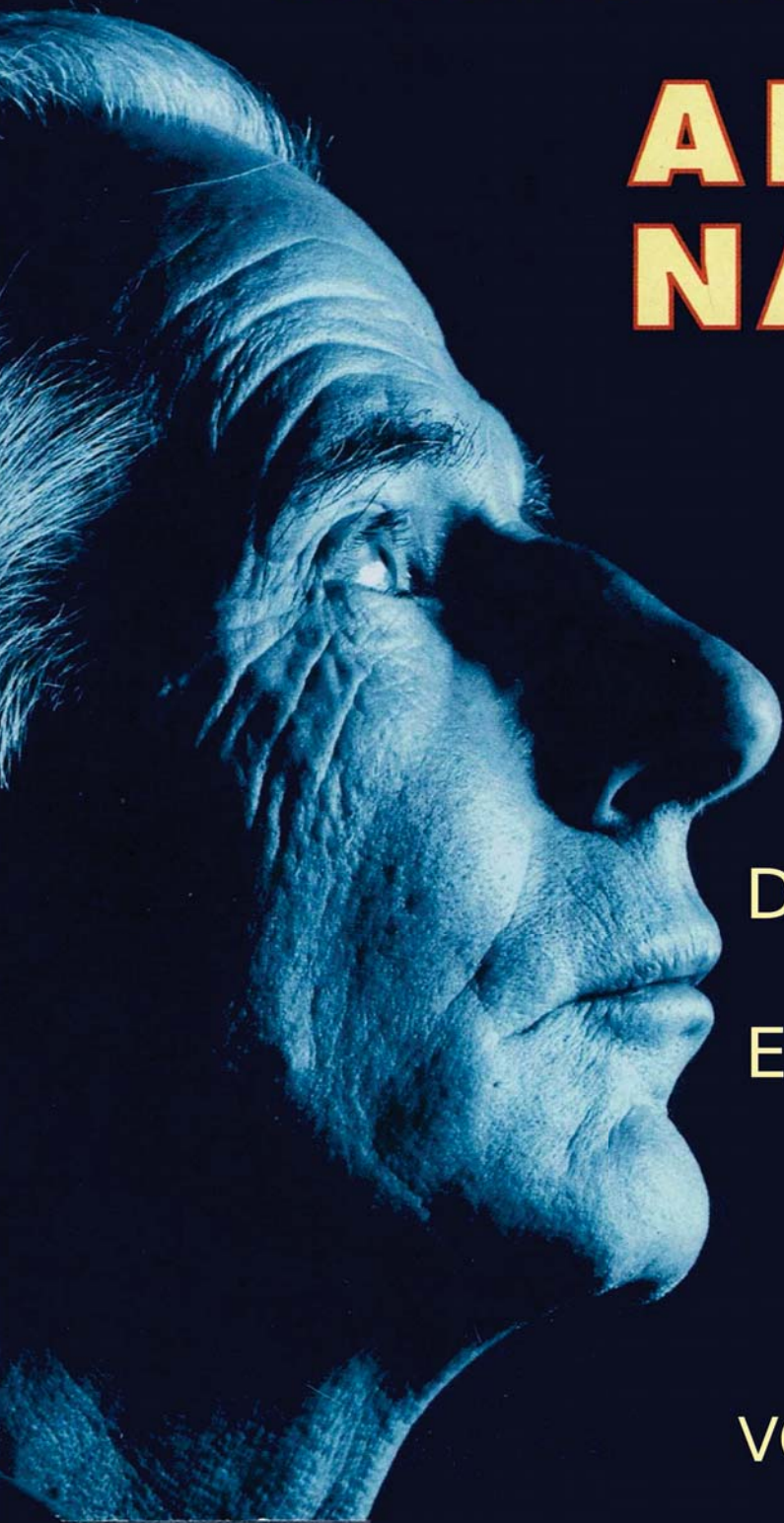
COLLECTED WORKS OF

**ARNE
NÆSS**

DEEP

ECOLOGY

VOLUME 4



BERSERKER

BOOKS



The Selected Works of Arne Naess

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World
Selected Papers

VOLUME VIII

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Author's Introduction to the Series

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 for improving the readability of the first editions of *Scepticism* (SWAN II),

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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

by Alan Dregson

The twenty-one papers gathered together in this volume have been organized under four broad section titles: (1) Empirical Semantics and 'Truth,' (2) Zeteticism, (3) Empiricism, Possibilism, and Pluralism, and (4) Metaphysics, Morals, and Gestalt Ontology. The narrative threads and themes running through these essays are woven together by Arne Naess's active practice of open inquiry, an inquiry that can be both detailed and comprehensive and is motivated by his strong sense of wonder and his passion to know the world *in as many ways as possible*. It is not by chance that Naess describes in sympathetic terms the way of the zetetic, or lifelong seeker of knowledge, truth, and wisdom (see section 2). As such a seeker himself, he strives to know the world by actively engaging in many ways of observing, analyzing, experimenting, and searching. He regards his writings in much the same way, as works in progress.

Since life is a creative process, not a finished affair, there is wisdom in seeking through open-ended inquiry. From his in-depth study of scepticism, Naess came to appreciate especially the wisdom of a form of Pyrrhonian scepticism called *zeteticism* (chapter 10, "Pyrrhonism Revisited"). The zetetic seeks above all to know truth. Although the zetetic trusts that it is possible to attain truth and knowledge, he or she remains open and does not claim the truth (chapter 11, "Trust and Confidence in the Absence of Strict Knowledge and Truth"). The ancient zetetics, like their modern counterparts, realized that the world of experience is ever changing, that every event has many descriptions, that the world is full of surprises and incomprehensible mystery.

Early in life Naess was impressed by the unity and aliveness that he perceived in the natural world. His sense of wonder was kindled by the

many beings he encountered while playing as a child in the Oslo fjords and in the alpine meadows near Mount Halingskarvet (see SWAN X, chapter 33). In these natural settings he realized that his spontaneous experience had a unity and a sense of personal meaning connected with the natural world. The quality and complex nature of this unity were illuminated for Naess when at age seventeen he began his lifelong reading and rereading of Spinoza's *Ethics* in the original Latin. These childhood experiences and his passionate interests led him on to a lifetime of learning, research, and writing. He became a philosopher in the grand Spinozan way and also a lifelong alpine mountaineer (not just a specialist rock or ice climber). Spinoza is one of many philosophical summits he has climbed (see SWAN VI). Both of these quests—in nature and in philosophy—unite expansive perspectives with appreciation for details and how systems work within systems. In these quests Naess discovered that systems of thought, cultural systems, and ecological systems run in parallel paths but also form intersecting patterns. There are worlds within worlds, as noted in Buddhist philosophy (chapter 20, "Gestalt Thinking and Buddhism").

Naess approaches research, learning, and philosophy much as a field naturalist studies the life-forms of the natural world. He seeks to understand concepts and words in their natural settings of language, tradition, and culture, just as he tries to see the creatures of the natural world in processes interrelated to smaller and larger ecosystems. The natural world can appear in our personal and cultural narrative traditions in many ways. For Naess, mountains are central to his way of life and personal mythology.

Influenced by Gandhi, Naess also seeks to know and communicate nonviolently. He believes research should be neither destructive nor elitist. The most comprehensive inquiry is open, philosophical, and global; and the questioner uses as many methods and conceptual forms of organization and order as are appropriate to a subject or problem. In texts, for example, words form sentences and sentences are ordered into paragraphs, which in turn make up chapters. Chapters are part of the whole text or novel; the book is part of a literary tradition. The patterns of order seen in wholes as *gestalts* are reflected at every level, from tiny to large. This is true also for the patterns of research that appreciate details in larger systems of meaning in texts and spoken conversations, from single words to sentences, to paragraphs, to a whole story, to a series of related stories, and so on to a mythol-

ogy. Each text or conversation forms a whole made up of many *gestalts*; and this corresponds as well to the way our experience is formed (chapter 19, “Creativity and Gestalt Thinking”). There are endless ways to organize each of these patterns and subjects.

Open inquiry entails investigating any subject or problem on every level and using many methods (chapter 14, “Logical Empiricism and the Uniqueness of the Schlick Seminar”). Open inquiry brings together our cognitive, emotional, sensual, spiritual, intuitive, and other capacities into a total view reflecting our sense of the whole of life. Naess’s philosophical and research endeavors can be traced to a life purpose that is practically oriented to helping himself and others to realize themselves. He wants each of us to become all that we can be. Because Naess lives by nonviolence, philosophy for him is an active *loving* search for wisdom amid comprehensive values within a great diversity of worldviews. He thinks we each act *as if* we had a total view of the world and our lives, *as if* we knew our ultimate values, and *as if* we knew the relations between our own life condition and the rest of the world. He believes that each of us knows more and is far more capable than we usually realize. Open inquiry is a way to pursue articulation of our total view and life philosophy since it intertwines our own views with other worldviews. Our attempts to articulate these views at a global level—using values that are comprehensive—lead us to ask questions such as, Why do I live the way I do? What are my priorities? What is the meaning of life? What do I most care about?

Each of us has a unique way of experiencing the world, of trying to characterize our experiences, and of expressing our total view through spoken or written language, music, dance, art, and myriad other means. Our most basic freedom is to choose how we will live and relate to others and the natural world. We must have values and we must also know something about the world. Science, even when a solitary undertaking, is one way to pursue knowledge by way of specialized, organized activities that involve others. There are many sciences and many other ways of knowing the world, but all these ways of knowing by means of specialized subjects and disciplines address only discrete aspects of our total spontaneous experience, which itself is inexhaustibly deep and rich. Through open inquiry, as a recursive process of reflective self-awareness, we eventually discover a great pluralism, even within a personal life in a specific cultural context.

When we try to identify ourselves and who we are, we find that our self-knowledge depends on our place and its local traditions; our family; and our personal experiences, culture, and language. In other words, each of us is uniquely embedded in a narrative community. (For broad narrative contexts, see SWAN I, *Interpretation and Preciseness*; for more specific issues, see chapters 1 and 5 in this volume, “Common Sense and Truth” and “The Empirical Semantics of Key Terms, Phrases, and Sentences.”) To know ourselves more fully, then, we must know ourselves in different settings, contexts, and experiences. Even then, none of these can fully define the whole reality of our spontaneous experience.

When we move to global perspectives, we encounter a great diversity of languages and cultures. Naess looks at these as if he were a cultural anthropologist from another solar system. He believes that individuals who are ordinary citizens, not experts or specialists (chapter 5), are a rich source for finding out about the nature of important concepts central to worldviews and values (see chapters 13 and 15, “The Glass Is on the Table” and “The Spirit of the Vienna Circle Devoted to Questions of *Lebens-* and *Weltauffassung*”). What are these semantic connections to the world? Our experience, we find from careful, self-aware examination, is organized by *gestalts*, patterns of meaning and intention inseparable from values and feelings, bound up with thoughts and language. Common sense, as a whole way of responding, seeks *truth* in practical, everyday terms: to know what is the case (chapter 1). The same is true for descriptions of what is *real*.

Reality is complex, deep, and multidimensional. It is possible for each of us to have a unique personal life philosophy and worldview within a great diversity of ecological systems and cultures. Even if worldviews conflict, there can still be understanding. Knowledge and truth, in Naess’s approach, are neither relative nor absolute. There is no single aspect of reality that is the only true or important one. Rather, there are many experienced realities, and all are part of larger and more inclusive *gestalts*. Reality is ever changing and inexhaustible, as our spontaneous experience shows.

Open inquiry into science and similar human enterprises leads us to an inescapable conclusion: there is no evidence-based proof that the future is determined or that probabilities are necessities (see SWAN IV). Scientific theory is just one of many ways of describing diverse aspects of the whole rich world. Naess affirms that possibilism (anything can happen) is liberat-

ing and in tune with open inquiry as a way of life. The future depends on our own actions. We can choose to live in harmony with others and with nature. The quality of our lives and experiences depends on our value choices. The more comprehensive our values and perspectives, the less fragmentary our total view. To be comprehensive and inclusive we must be nonviolent, however. When violent, we are exclusive and separate ourselves from others. Nonviolence is welcoming and inclusive. There are no value-free forms of experience, inquiry, or action (chapter 16, “Do We Know That Basic Norms Cannot Be True or False?”). Naess agrees with Spinoza that active emotions such as love and kindness increase our feelings of connection with the world and give us joy. Positive emotions allow an expansive sense of relationships and self; they enable us to be more effective and to have a higher quality of life.

Open inquiry does not end with specialized knowledge or specific truths about factual matters. It seeks to bring together or unite all ways of knowing and feeling. Thus, it gives us a life of reason that is integrated and whole, one that includes values and feelings as important components of a worldview (chapter 21, “Kierkegaard and the Values of Education”). Naess uses many forms of investigation and analysis—ranging from questionnaires and interviews (chapter 4) to observations, experiments, and textual analysis—to pursue questions such as, What is truth? What and how can we know? What are values? Can basic norms be said to be true? (chapter 16), What is the role of intensity of feeling in relation to moral life and suffering? (chapter 18), and What is the best education for a high quality of life?

One form of investigation he uses is based on empirical semantics, since our comprehension of the world is dependent on language. Empirical semantics takes a descriptive approach and uses a variety of methods to study how everyday language in a specific place is connected with the lives, experiences, and practices of the people of that place. In his studies Naess found that *truth* as explained by experts was more limited and less creative than as explained by ordinary people, who said everything the experts said and more (chapters 2 and 5, “Logical Equivalence, Intentional Isomorphism, and Synonymity” and “The Empirical Semantics of Key Terms, Phrases, and Sentences”). Naess sees no limit to our use of empirical methods, even when they are not equated with the specific epistemology of a

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specialized branch of knowledge such as semantics, sociology, or psychology (chapter 12, “How Can the Empirical Movement Be Promoted Today?”). All researchers, even philosophers, should be willing to use empirical methods whenever those methods are appropriate.

Everyday language is the widest and deepest base for illuminating people’s whole life experience through narratives. How can we better communicate, and how does language function in different inquiries? Science and math are specialized, theoretical undertakings that use highly abstract language and concepts. These abstractions are not the concrete contents of the world and should not supplant the wholeness of our spontaneous experiences and ordinary ways of talking. All aspects of our lives and the world are open-ended, inviting creative and original responses from us. The ultimate aim of education is to help us become lifelong, self-actualizing learners and creative persons (chapter 21). As mature, self-realizing persons we are able to articulate our life philosophy. We come to realize, as Naess has, that we can lead a life of deepening quality and appreciation by enjoying the complexities and diversities in the world, including life-forms, cultures, and personal lifestyles unlike our own. Diversity and differences should not be seen as threatening. They should be welcomed. From wider perspectives we can see them with equanimity, as Spinoza observed.

Even the most narrowly framed technical questions, such as an investigation of how the word *or* functions, can be brought into a larger inquiry significant for daily life (chapter 3, “A Study of *Or*”). Just as we can place tiny organisms in their larger ecological settings, so it is with words in a language: we locate them through studying actual contexts of use connected with local and larger narrative traditions of meaning. At the highest level of global narrative ordering, we find mythopoetic themes with ultimate value and state-of-the-world premises that underpin religions, worldviews, and philosophies of life. The spirit of cooperative research and inquiry that characterized the Vienna Circle was the most important thing Naess learned from participating in those discussions (chapter 15). This for him is friendly, community-spirited inquiry that can investigate any subject, including worldviews. It opens to a way of life enriched by wonder as we find ever more perspectives, deeper feelings, greater clarity, and more unifying insights.

This volume focuses the spirit of open inquiry on values, knowledge,

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and truth. In it Naess helps us better appreciate the complex structures that compose our whole unified spontaneous experience. We each can find ways to live a meaningful life within this highly pluralistic world, all the while expressing our uniqueness. At the same time, we can cooperate with others to preserve cultural and ecological diversity.

Author's Preface

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 non-violent 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."

AUTHOR'S PREFACE

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-

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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

EMPIRICAL SEMANTICS AND 'TRUTH'

Common Sense and Truth

The number of so-called theories of truth is—as all interested in philosophy know—very large. Less numerous are the theories concerned with the notion of truth among people who are not (supposed to be) philosophers. I shall call these latter theories common-sense (cs-) theories. There are theories about a “Volkswahrheit,” “Wahrheit der grossen Haufen,” “Wahrheit des Kindes” (Heinroth), “truth as viewed by all people” (Beatrice), “the popular use of ‘truth’” (Brandt), “‘Wahrheit’ in üblicher Bedeutung” (Carnap), “‘Wahrheit’ in der Umgangssprache” (Carnap, Tarski), “la notion commune que la conscience humaine se fait de la vérité” (Leroux), and so on. Thus enumerated these theories may seem little connected with one another, but in fact the discussions centering on formulations of this kind are carried out *as if* they all dealt with the same subject: the one is found “better” than the other, some are “refuted” by some others, and so on. Moreover, it is not uncommon to find references to “that which is limited by the bare meaning of the words *true* and *false*” (Husserl and others), to truth as revealed “wenn man einen Bauer fragen wollte” (Lossius), or to truth “if common sense had been asked to formulate” it (Marhenke). These references are observable in current discussions about “truth” and might give the impression that investigations of some sort have been carried out—for example, systematical observations of how the word *true* is used, or inquiries into the type of answers received if those in one’s non-philosophic environment are asked to define truth. This impression is, however, apt to fade away as soon as one reads some 100 theories and ob-

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serves how the authors contradict one another, how they fit their cs-theories into their general theories of cognition or reality, and how they seem to avoid any actual description of experiments. I think that even superficial questioning of nonphilosophers makes it hard for anyone to believe that the philosopher has got his "knowledge" about peasants' and others' use of the word *true*—or about the views of nonphilosophers on the notion of truth—by asking any other person than himself. If they, for example, have given their wives and their assistants the occasion to utter what they think about the matter, or if they have asked a philologist, how could they write as they have done? This is a difficult psychological problem, and I shall not try to defend any special solution of it.

This is not the place to describe the philosophical cs-theories, but to aid the inexperienced reader we shall quote some at random:

Every belief asserts that something (in the widest sense of something) possesses a quality, or is connected with something by a relation. If the belief is true, then that thing does possess the quality or is connected with something by the relation. The possession of such a quality, or the connection by such a relation is a fact, according to our definition. And if the belief is true it will correspond to the fact. . . . If common sense had been asked to formulate what is to be meant by the truth of a belief, this is probably what it would have written, just as it would have agreed to McTaggart's definition of the falsity of a belief.

(Marhenke 1922: 169)

[D]e beaucoup les plus nombreux traducteurs fidèles du sens commun, caractérisent la vérité comme un accord de l'idée et de la réalité, une relation de correspondance entre notre pensée et son objet. . . .

(Leroux 1923: 302)

According to Richter (1908: 16) there are some characteristics of truth that are fundamental and generally accepted. Among them are "Unveränderlichkeit der Wahrheit und deren Evidenz für alle Subjekte."

Le sens commun appelle *vraie* toute idée conforme à la chose qu'elle représente. Le vrai de ce point de vue réaliste, c'est donc l'être même. La notion de vérité répond alors à la formule scolastique: *adequatio rei et intellectus*.

(Le Roy 1930: 182)

Without saying how he has arrived at the conclusion, Le Roy declares that this theory of the nonphilosophers implies a “realistic ontology” and “the criterion of fact.”

Walker finds that objective evidence is the criterion of truth and “the only criterion which the ordinary man uses.” Objective evidence he explains thus:

We assent because we are forced so to do by the object itself, because it is the object itself and not some other object or cause which seems to have manifested itself to our mind. We assent because that to which we assent is “obvious” and we cannot help assenting.

(Walker 1910: 641)

In one respect, all nearly agree in regard to the definition of the term, for all admit that by truth is understood a harmony,—an agreement, a correspondence between our thought and that which we think about.

(Hamilton 1870: 63)

Consider again too, in this connection, the scholastic definition of Truth, which is also the current definition, the definition of popular philosophy, being that of the direct mode of consciousness as distinguished from the reflective. That definition is—the agreement of our thought of things with the things themselves.

(Hodgson 1878: 213)

Der Willensakt, welcher im Urtheil zu der Vorstellungstätigkeit hinzutritt, ist von den Stoikern als Zustimmung ($\sigma\upsilon\lambda\lambda\alpha\theta\epsilon\sigma\iota\zeta$) bezeichnet worden, und es fragt sich nun, was diese Zustimmung bedeutet. Es ist begreiflich, dass das naive Denken an diese Frage mit der Voraussetzung herantritt, die Bedeutung der Zustimmung, d. h. der Sinn der Wahrheit müsse immer derselbe und ein für allemal bestimmbar sein.—Das ist nun aber gerade nicht der Fall, sondern eine kurze Ueberlegung beweist, dass die Wahrheit in sehr verschiedenem Sinne gemeint sein kann. Die Wahrheit eines mathematischen Satzes, die Wahrheit einer historischen Hypothese, die Wahrheit eines Naturgesetzes—sind sie durch dieselben Merkmale zu bestimmen? Man wird von dem unbefangenen Denken vielleicht diese Frage dahin bejaht finden, dass die Wahrheit unter allen Umständen in der Uebereinstimmung zwischen der Vorstellung und der Wirklichkeit besteht. Aber man wird sich leicht überzeugen, dass das schon für jene drei Beispiele nur in sehr unvollkommener Weise zutrifft.

(Windelband 1914: 196)

[W]ir haben darin vielleicht den vollständigsten Ausdruck der naiven Weltansicht, welche den vorstellenden Geist in einer Umwelt befindlich annimmt, die sich in ihm irgendwie wiederholen soll, und alle die sinnlichen Tropen, mit denen die Sprache den Erkenntnisprozess bezeichnet—abbilden, spiegeln, erfassen, begreifen usf.—zeigen, aus der Tätigkeit der verschiedenen Sinne entnommen, nur die verschiedenen Arten, wie eine solche innere Wiederholung des aussen Wirklichen vorgestellt werden kann . . . "die transzendente Wahrheit"—so mag dieser erste und naive Wahrheitsbegriff genannt werden—ist in ihrer ursprünglichen Bedeutung nicht aufrecht zu erhalten.

(Ibid., p. 197)

Unbeirrt durch solche Erwägungen hält das naive Bewusstsein jenen ersten Wahrheitsbegriff fest, und soweit es darin nicht schwankend wird, sprechen wir nach Kants Vorgang vom Dogmatismus der Erkenntnislehre, welcher ohne weitere Kritik das Gelten seiner Vorstellungen als ein Erfassen oder Abbilden der Wirklichkeit behauptet.

(Ibid., p. 214)

I think that such formulations are interesting objects for psychological and sociological research, and it is mainly as such that I intend to deal with them here. Looking at the truth theories as a naturalist looks at some interesting flowers, one may ask, How do truth theories evolve? What determines the choice of theories among the professional philosophers? Which traits of philosophic culture favor the production of truth theories? Is it possible to find laws that hold for the choice of theory? What distinguishes truth theories from an average theory of contemporary natural science? Is it possible to domesticate "truth theories," and if this is possible, which relations then hold between variation under domestication and variation in nature? To get some material with bearing on these and similar subjects, I decided to try to produce truth theories "experimentally" by asking people without philosophic training all sorts of questions that would in a natural way lead them to speak about 'truth'. A lengthy monograph now to be published discusses this and similar subjects. I shall in this article indicate how they are dealt with.

Without a clear idea of what the philosophers aim at when they construct theories of truth, it is difficult to take a view of what they call the nonphilosophers' opinion of the truth notion. How is it possible to control what the latter say, ignoring this?

I have never heard a nonphilosopher state something similar to a “view on the notion of truth” without being urged to it. To collect material for this subject it is therefore necessary to *construct situations* to which it is probable that people react with statements analogous to “opinions on the truth notion.” Of such reactions, certain types are more valuable than others for purposes of comparison. The statement “One will never find the truth” is especially valuable if the person has also given a definition of truth. If he has not, we do not know, for example, whether by “truth” he means “statements firmly believed by all persons,” “agreement with reality,” “Reality,” or something else. Utterances such as “*True* means agreement with reality” and “The common characteristic of what is true is that it serves life” are valuable too because of their close resemblance to basic formulations of philosophers: philosophic definitions of truth—the nuclei of truth theories. It is of interest to know what things a person calls true after having heard how he defines truth. The cs-theories do not usually mention this last subject, but I think it advisable to know something about how it might control them. Considerations of this kind forced me to adopt a questionnaire method, to try to stimulate people with verbal utterances, for example, of questions about “the notion of truth.” Actually, I used a questionnaire method with the character of personal interviews, assisted by standard lists of questions that functioned as starting points for discussion.

Experiments show that the person thus stimulated probably answers with “definitions” and that his reactions generally have no *specific* nonverbal traits: he may run away, laugh, fall into a stupor, look down at the floor, but these reactions also occur in situations in which questions about the notion of truth are lacking as stimuli. *Verbalized* unities of behavior should therefore form our first and most important subject. My first method for detecting such unities was to ask a direct question such as “What is the common characteristic of what is true?” and then to examine carefully in which possible unities of verbalized behavior the respondents’ answers occurred. This was done by letting the person talk without trying to lead the conversation by posing any further questions concerned with truth. The subjects touched upon by the person were adopted as subjects for further questions. All *Einfälle* of the person were written down to get a picture of the verbalized behavior unities thus connected with the reactions to my introductory question.

After using this method with about sixty respondents, I gave it up and

adopted a rigid questionnaire method. The main reason for the change of method was to get valuable statistical material with a bearing on all basic philosophic questions discussed in "truth theories." The value of such statistical material is proportional to the stability of the conditions under which tests are carried out. I consequently tried to standardize the situations. This was done by standardizing the *questions*, leaving less room for undirected explorations. During the collection and interpretation of the material, supplementary schedules were constantly worked out to meet the need for information not previously desired. Not all questionnaires concerned the notion of truth: a great many truth theories speak promiscuously about what is true, right, correct, certain, false, wrong, erroneous, and so on. I therefore worked out questionnaires each of which was concerned with one of these expressions. For the sake of brevity, in the following I shall refer to the different notions as "S-notions" or as "truth and similar notions." Three hundred people were examined according to the standardized questionnaires. The average duration of the examinations was about one hour. No one was examined for less than ten minutes, and some people were examined for more than ten hours.

To give an impression of the questionnaires used, I shall indicate the contents of an "average" questionnaire: (1) Request for examples of something true and questions about whether the examples put forth have a common characteristic. Request to define 'true'. (2) Questions concerning the existence of something absolutely true. Requests for examples. (3) Question regarding the person's possible familiarity with the subjects under discussion.

All conclusions arrived at are based on sampling: in the field subjected to investigation no other method is possible. It is impossible to ask *all* people about truth, impossible to inspect *all* produced truth theories. *None of my conclusions I think in any way secure*—I predict that a considerable percentage of the statistically obtained correlations (say, 15 percent of them) would prove deceptive if the sample size were enlarged from 300 to 1,000 or 5,000. There are people who think that clear perception of this limited security must imply a severe judgment on the scientific worth of the correlations. I cannot agree with them: our daily life-knowledge and much of our psychological and sociological knowledge are of the same type. The difference is often only in the formulations: absolutistic formulations very often

predominate in fields in which careful statistical formulations should prevail. If 80 percent of sociological predictions based on correlations found in a sample of 100 individuals are confirmed in a sample of 1,000 individuals, I think the predictions are of a high standard. In the last part of this article, I have allowed myself to state very far-reaching theories concerning truth theories. It should be unnecessary to point out that one may accept the statistical results of my work without in any way accepting my theory on the “dynamics of truth theories.”

The protocols written by the examiner or (less often) by a respondent contained 500 “definitions” of the notion of truth (or similar notions) produced by 250 respondents. As definitions, I classed statements of a very general character resembling (or being identical with) what are called definitions by the “professionals” (the philosophers who create and publish truth theories).

The ages of the respondents ranged from 12 to 65, their school training from none to baccalaureate. No person who was studying or had studied philosophy at the university was included. Exceptions were respondents who had read two or three books on philosophy but had never read or heard anything about truth theories (according to their own account). The following list contains the definitions of a few of the respondents, together with the examiner’s questions. Many of these questions, *Q*, do not come from the questionnaires but were determined by previous answers, *A*, of the respondent.

Q: Is there anything absolutely true?

A: (21-year-old school senior, Norwegian “gymnasium”) If it agrees with one’s own feelings and sense impressions.

Q: What are some common characteristics of things that are absolutely true?

A: (17-year-old school senior) What cannot be otherwise.

Q: What is the common characteristic of that which is true?

A: (21-year-old, baccalaureate) That it is real.

A: (16-year-old school senior) That it is the absolutely logical.

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A: (15-year-old, less than ten years of schooling) The common characteristic of all that is true is that it is in agreement with reality.

A: (17-year-old school senior) Subjectively: by its effects on the individual; the characteristic of the true is that it satisfies all parts of one's critical intelligence.

Q: What is the common property of that which is true?

A: (15-year-old, less than ten years of schooling) That one can prove it.

Q: What is the common property of true statements?

A: (19-year-old, less than ten years of schooling) That they are said with a certain strength.

Q: What is the common characteristic of that which is true?

A: (16-year-old school senior) That it really exists.

Q: Why do you use the word true?

A: (16-year-old school senior) It is something that we have been taught to believe.

This short list (chosen at random) may already convince the reader that many different views of the truth notion are represented. One may classify the definitions into as many groups as one wishes: 480 out of the 500 definitions were different with regard to formulation. Certain tests indicate that most formulations were viewed by the respondents as having different and incompatible meanings. We shall here briefly mention three methods of grouping the definitions. The first method (Gr1) leads to groups comparable with the groups constructed by philosophers who classify truth theories (correspondence, coherence theories, and so on). About 30 percent of the definitions could not, however, be satisfactorily placed in any philosophical group. According to Gr1, the definitions fall into about forty-five main groups. More than half of the 500 definitions (of the "standard material") cannot easily be classified into any of these groups: they may equally be said to belong to two or more of the groups or to belong to none of them.

Of the Gr1 groups, some may be of interest to the reader: Gr1.1 in-

cludes all definitions according to which truth means agreement (accordance, *Übereinstimmung*) with reality (or “the real,” “things,” “the thing spoken of”). A considerable percentage of philosophers are of the opinion that this is the definition *adopted* by nonphilosophers or that nonphilosophers *implicitly accept* it. This group is fairly well represented among the “amateurs” (16 out of 500 definitions), but there are other types of definitions that are more common among them, and, what is more important, no Gr1 group contains as much as 15 percent of all definitions. It is a waste of time to argue that when respondents say, for example, “True is what is so,” they mean the same as when they say “True is what agrees with reality.” Such identifications may in some cases be justifiable, but generally they are not. Consequently, no definition of truth can be said to express “the nonphilosophers’ view of truth.” There is no such view. One can just as well (or perhaps even better) speak of *the* philosophers’ view of the truth notion. Statistical analysis of the *examples* of truths put forward by nonphilosophers points to the same conclusion.

The most frequent Gr1 group of definitions is the one according to which an *S*-notion is defined as something that can be proved or that actually has been proved; 57 out of the 500 definitions can be said to belong to this group. It can be said to be a low-education group: the greatest frequency of this definition occurred among respondents with less than ten years of school training. Only 1 out of 400 definitions adhered to by professionals could be placed in the “proof” group.

Next to the “proof” group, many other groups can be placed, and among these the “agreement with reality” group. These two groups’ relative frequency can be distinguished one from the other only by adopting rigid definitions of “frequency.” There are several definitions of value: one may investigate the frequency distribution among respondents of *all* classes of age and education or among certain of them, thus distinguishing several types of nonphilosophers. Or, one may calculate “frequency points” by which respondents who put forth several definitions as equally or nearly equally good are distinguished from those who put forth but one definition.

According to a grouping principle called Gr4, the definitions are classed in two groups. The principle is founded on the difference between definitions with reference to “something human” (Gr4.2) and definitions

without reference to "something human" (Gr4.1). The first group of definitions tends to place man at the center of attention; the second evades mentioning anything connected with man and his activities. Accordingly, we call the formulations of the first group homopetal and the formulations of the latter homofugal. Examples of marked and obvious homopetal definitions are "(True is) what I perceive directly by my senses," "As a rule it sounds natural," and "No one is able to change it." Examples of homofugal definitions are "what is so," "the facts," and "what has happened."

According to the sayings of most philosophers (with fifty cs-theories taken into account), Gr4.1 should occur more frequently. This is not the case, however. Only 16 percent of the amateurs' definitions belong to Gr4.1 whereas 32 percent of 200 definitions put forward by philosophers belong to it. Curiously enough, the group Gr1.1 ("agreement with reality")—*also imputed to the nonphilosophers*—is the most frequent Gr1 group among the professionals (with 400 definitions in philosophic literature taken into account; definitions of "formal truth," "mathematical truth," and so on, are not included among the 400).

According to Gr6—the third principle to be mentioned here—definitions are classified according to the manner in which the respondents, by using their formulations in discussions, would be able to discern truths. How many factors have to be taken into account to identify them? If a person states that "agreement with reality" is the criterion of truth, one may say that he, *according to his formulation*, must take two factors into account: there must be a relation of agreement, and there must be a reality. It was found that the number of factors to be taken into account increases rapidly with the degree of education of the person, the correlation being much closer than in the case of Gr1 groups of definitions. The average number of factors varies for each class of age and education from 1.5 (those under sixteen years old) to 2.5. The corresponding average value of 200 definitions proposed by philosophers was 3.0.

The reader may ask whether one may look upon the definitions as *real opinions* of the respondents or whether they are mere *Einfälle*, mere words occurring to them during examinations. Various things point to the conclusion that in the majority of cases the definitions are opinions representative of the people holding them. They are the "solutions" of the problem as viewed by the respondents.

Some respondents mean that “truth” and similar notions are ethical notions. Statements such as the following are not frequent among the professional truth theorists, and they are consequently excluded from the lists of their “definitions.”

“(The common characteristic of what is right is) that conscience does not protest against it.”

“True is what conscience says.”

“Truth is the opposite of lie.”

“What is untrue is always decorating itself with a circumstantial speech.”

The relative frequency of moral views on what is true decreases with increasing age and education, but there are people who have received academic education in philosophy and nevertheless entertain such views.

Classifying the respondents by age and school training (“education”) shows that, statistically, younger and less-educated respondents are inclined (on average) to prefer different types of definitions from those most frequently used by older or more educated respondents. The preference is one of degrees. No type of definition appears to be exclusively adhered to by a single class of people. This holds good for the more frequent types of definitions.

There is no evidence to support the view that philosophic education radically changes a person’s attitude toward definitions. This is seen when comparing the types of definitions chosen by people without any philosophic school training with the types chosen by people with philosophic school training. Concluding formulations are retained, whereas arguments change.

Among the most frequent G_{ri} groups, G_{ri.1} (agreement with reality) shows no marked correlation with age or education; the others are, on the other hand, decidedly correlated with low-education groups and, to a lesser degree, low-age groups. This means that they are much more frequent among respondents in the 13–15 and 16–19 age groups than among those in the 20–30 and 31–65 age groups—or that they are much more frequent among people with 0–10 years of school training than among people with more training.

About 15 percent of the people whose opinions on "truth" (and similar notions) were collected did not give any "definition." The thirty-three people who can, with relative ease, be classified and who belong to this group can be placed in two categories: (1) those consistently denying or doubting the existence of any adequate definition or of any common characteristic of what is true (six persons belong to this class); and (2) those who seem to try to find formulations of the type called definitions but who do not arrive at any (twenty-seven people). Most of them may perhaps be said not to "understand" the questions put forth by the examiner.

Respondents who deny or doubt the possibility of any definition do this for much the same reasons as those found in philosophic literature, as the following examples suggest.

Respondent 15 distinguishes between the existence of a common characteristic from an "objective" view and from other points of view. "They (statements I call true) have the common property that I accept them as true from my individual point of view. From an objective point of view, certainly none."

Respondent 32 rejects the possibility of a common characteristic but states that "one cannot at all say: something *is* true."

Respondent 214: "Every definition of truth must be more or less subtle. One can define mathematical truth. That is one thing. From the point of view of natural science another thing, and then come facts such as: I am sitting here. There are many kinds of true things. But to find a word that covers all things I think is quite impossible—and if a man so ingenious as to discover such a word should exist, I would look upon his effort as perfectly aimless."

Other respondents claimed that they had to "go around in circles" to define truth.

The questionnaire method is particularly open to influence by suggestion. During the examination, I sometimes had the impression that the person might have been led to believe in the existence of a common characteristic of what is true by the fact that the first question read, *What is the common characteristic of that which is true?* I therefore decided to use different versions of questionnaires, some of which included statements suggesting that there can be no common characteristics. Statistical analysis of the results shows that there is no evidence favoring the assumption that respondents are easily influenced to acknowledge or to deny the existence of a common characteristic.

If a philosopher defines true statements as “statements belonging to the class c ,” it is to be expected that if other statements (for example, *probably*-statements) also belong to class c , he declares the latter to have the same meaning as the former. If he does not, the definition is inadequate. It was found that the respondents defined “true” in much the same manner as certain other expressions, for example, “right.” The frequency distributions of definitions belonging to the different Gr1, Gr2, and Gr6 groups are closely related, the standard deviations from the average distributions being small. This, in turn, supports the view that their function (“use . . .”) is similar. In philosophic literature there has been a tendency to neglect all notions closely related to that of truth, and to write as if statements such as “it is true” should have a function clearly distinguishable from all other statements (for example, “it is sure,” “it is right,” “it is known,” “it is so”). Statistical analysis of the respondents’ answers makes it almost impossible to believe in a specific, observable difference of function in such cases. No specific trait that is held to belong to the truth notion (unrelatedness to time, etc.) seems to belong to it otherwise than by philosophic tradition. This being the case, I think it necessary for the development of our knowledge about S -notions and “opinions” to neglect methodologically theories that do not have any other support than such tradition.

Most questionnaires included questions such as the following: Do you distinguish between something true and something absolutely true? Is there anything absolutely true? Give some examples of absolutely true statements. The correlation between belief in “something absolutely true” and “something absolutely right” (and so on) was so high that such notions (“absolutes”) need not be distinguished in formulating the study’s main conclusions. These conclusions included, for example, the finding that belief in “absolutes” is much more frequent than disbelief. Only two people thought the question of the existence of absolutes was “meaningless.” The relation between frequency of belief, disbelief, and other standpoints is 70:20:10. Very few people changed their views with regard to the existence of absolutes during the examination. The suggestibility is small. There are close correlations between belief in absolutes and age/education—disbelief increases steadily with age and education. Even among people less than sixteen years old, there are, however, as many as 15 percent who are “sceptics.” How many there are in other

countries or how many there will be in ten years, I leave to others to estimate.

There is much evidence in support of the view that females have a greater tendency to believe in absolutes than do males. Lack of space makes it impossible here, as in connection with other statistically obtained results, to formulate our conclusions carefully. Exact statements with quantitative values are meaningless unless one can describe exactly how they have been arrived at.

Reading philosophic discussions on the notion of truth, one becomes accustomed to expect that advocates of this or that type of definition believe in absolute truth, whereas one expects that advocates of a different type of definition doubt or deny the existence of absolutes. Statistical investigations support the assumption that there are correlations between types of definitions and their authors' standpoints toward the existence of absolutes. It is apparent that one may, with a certain amount of probability, forecast that if a philosopher or a respondent adheres to a certain Gr1 group (among the larger ones), he will favor a certain view of the existence of absolutes. In this, as in other connections, our prognoses are intended to be valid only in milieus with the same average properties as those of our philosophers and our respondents today.

The request for examples of something true (or of something absolutely true or of correct statements, etc.) brought into existence 1,000 "truths" that could be analyzed statistically. The types of examples varied slightly with the respondents' age and education as well as with their definitions. Individual differences were considerable: the "things" relevant to the true-false distinction were conceived in a fundamentally different way by different people. That the "truths" of one person would be considered "errors" by another was only to be expected. In spite of this, one may say that those giving apparently conflicting definitions of the notion of truth do not tend to choose conflicting types of examples.

What do respondents think of other respondents' answers? Will they, for example, think that the definitions of others "mean the same" as their own? Will they accept the notions of others or will they behave as philosophers? To address such questions, I confronted the respondents with definitions of other respondents and of philosophers, and with some of my own, the latter written down as *Einfälle*. More than 1,300 verdicts were analyzed.

On average, 77 percent of them were critical in cases of the definitions concerned being one put forward by another respondent. The standpoints toward the definitions of philosophers were on the whole slightly more favorable: 55 to 60 percent critical and 25 to 30 percent sympathetic. The seventy-two definitions written down as *Einfälle* were treated like those of the respondents. Very few (out of 470) definitions were tolerated by more than 75 percent of the people requested to consider them.

Having found the correlations between age, education, and standpoints toward the "truth-problem," I thought it worthwhile to try to find other correlations with such standpoints. During the examination of the respondents, one got the impression that their argumentation gave a good picture of at least some of their inclinations. It was quite another thing, however, to collect sufficient statistical material to support such impressions in a scientifically sound way. Because of certain practical difficulties, only one characteriological test—a test of "confidence" and "suggestibility"—was carried out. Schematically described, it consisted of the respondent's being invited to smell three test tubes containing different substances (*A, B, C*) with characteristic odors. He was then given fifteen other test tubes that were said to contain weak solutions of *A, B, C* but that actually contained nothing but distilled water. For each tube, the respondent was asked: (1) Do you smell anything? and (2) How sure are you? If he said he did smell something, he was asked: (3) What do you smell? and (4) How sure are you? An index of suggestibility was worked out in the usual way. The degree of confidence was calculated thus: the respondent was asked to indicate how sure he was by using either his own words or a set of expressions written on a list such as the following: (1) perfectly sure; (3) not quite sure; (5) as likely to have been mistaken as not. A confidence scale was worked out on which 1 ("perfectly sure") was fixed as 100 confidence points (c.p.) and 5 as 0 c.p. The correlation between confidence (as defined in this test) and standpoint toward absolutes was marked: disbelievers in absolutes avoided the expressions commonly held to indicate "great confidence." The correlation between suggestibility and standpoint toward absolutes was less marked. Taking the general behavior of each respondent into account, one sees clearly that numerous complicated factors are operating and that one has to be extremely careful in interpreting the material.



The questionnaire method proved adequate for our purpose of creating truth theories “experimentally.” It is apparent that all aspects of truth theories as they appear in philosophic literature can be reproduced. The debates of philosophers were copied by bringing some of the respondents together and letting them discuss their own answers. To compare truth theories put forth by amateurs with those of professionals, I worked with a “standard material” consisting of the truth theories of about 165 philosophers. This material I regard as a *fair sample* of truth theories. Most of the results of the comparison cannot be stated in a few words. Here I can only state some of the simple results in a rather crude and inexact way:

No type of definition found among the philosophers is lacking among the respondents—if one permits oneself to neglect 5 percent of the professional definitions that include exceedingly difficult words apparently untranslatable into the vocabulary of everyday speech (the definitions of Hans Driesch and others). No type of standpoint toward the possibility of defining the truth notion is lacking among the amateurs, nor do we find any type of standpoint lacking toward the existence of something absolutely true, toward verification, and toward the principle of the excluded middle. The philosophic *cs*-theories seem therefore to lack every empirical foundation. Only if one emphasizes minor differences and the bulky comments generally connected with statements of the conclusion can things be otherwise. It is easy to say that the respondents do not understand what they talk about, that they do not grasp the essence of philosophic questions. Observing their behavior in cases in which examination and discussion lasted several hours or extended over two years, I came to the conclusion that their opinions are deepened and consolidated whenever they get the *time* to work them out. In such cases, the main features of the first answers are generally retained. How do we, on the other hand, feel sure that philosophers know what they talk about? If respondents put forth opinions similar to philosophers; if two opinions, *A* and *B*, most often found together among philosophers are also found together among respondents; if arguments in philosophic literature in favor of *A* occur as arguments in favor of *A* in discussions among respondents; if, in short, the general behavior with bearing on truth theories is similar in both cases, then how can we place the professionals in an exceptional position?

Although many profound things are said in favor of truth theories, there are also many definitions containing references to exceedingly subtle distinctions never (perhaps) to be found among respondents. How, though, are these profundities treated by philosophers who do not adhere to their author's main views? They are brought down to very simple and prosaic things wholly within the reach of amateurs such as the respondents. It is worthwhile to study how the truth theory of one philosopher is described by other philosophers and to note how the truth theory is simplified and how discussion of it deals only with its coarsest and simplest features: the nucleus of the discussion. The statements that really invite the others to debate are simple and easily found among respondents between the ages of fourteen and seventeen.

Such considerations inevitably lead to the question, Does the philosophic discussion about truth develop as scientific discussions do; is there any progress owing to accumulated knowledge and experience? The question has to be answered with a no, I think. Already the discovery of all the basic types of formulations among respondents of ages fourteen to seventeen indicates that they undergo no further significant development: basic formulations are retained through all classes of age and education and ultimately made the center of philosophic discussions involving, for example, a definition of truth. The clumsiness of many of the respondents' expressions is replaced by the profound ear of philosophic style, and arguments are brought from more distinguished quarters, from contemporary scientific or ideological currents—but the concluding statements are the same.

How is it possible, one might object, that one definition is found more *reasonable* than any other if there is no development owing to insight? I think one factor is very strong: habit. Probably very few people who develop into philosophers and authors of truth theories are at the starting point acquainted with many truth theories. They get used to stating and arguing for a certain view. When they later on become acquainted with new theories, these are found less reasonable because they offend some already established habit of thought or expression. This process is clearly seen among respondents who are examined several times or who discuss their definitions with others. The following experiment was especially interesting: Three respondents were each confronted with three definitions of truth. None of them accepted the definitions, but in spite of this, each per-

son was instructed to *defend* one of the definitions against attacks by the other two. All three people were invited to attack the definitions of the others. They did this very unwillingly, professing that they did not understand the definitions and so on. In the discussion that followed, however, the arguments in favor of the first definition, "true is what serves life," were of the kind found in pragmatic literature; the arguments in favor of the second, "true is what is in agreement with reality," and the third, "true is what can be controlled by one's senses," were of the kind found in philosophic discussion of just these kinds of definitions. It was interesting to note that the respondents consciously or unconsciously tried to assimilate the definition they were forced (by pride, etc.) to defend, cleverly making the expressions of it in some way relevant to their own opinions, which they entertained with much fervor and tenacity. By this mechanism I think it is possible for anyone to defend a statement that he once, by chance or at least without acute reasoning, happened to adopt: it grows more and more "reasonable," more and more "obvious." It should be superfluous to admit that there are many exceptions to this law of development.

There are subjects under philosophic discussion that in many cases seem to flourish because of opinions that function like the opinions referred to above: opinions about the "ultimate nature of reality," "the possibility of living without illusions," "the objectivity of moral Truths," "the possibility of arriving at something that cannot be attacked by any sceptic," and so forth. They seem to determine, indirectly, basic views that in turn inspire the detailed opinions on the notion of truth. (See, for example, the discussions between F. C. S. Schiller and Bertrand Russell in *Journal of Philosophy, Psychology and Scientific Method*.)

It is not my intention to state that *all* published theories of truth are inspired by some vividly affective opinions concerned with subjects foreign to the "truth-problem." Just as occurs in religious systems with long traditions, however, there are always discussions going on about opinions, once a symbol of their advocates' deep affective tendencies, that later on are discussed simply because it is a good tradition to discuss them. The affective contents and symbolic character are no longer recognized.

The comparison between published truth theories and those of "amateur" respondents leads to results that cannot possibly stimulate the scientific in-

terest in new theories: the whole matter does not seem to be worthwhile. Such a conclusion is justifiable, I think, as long as one speaks about the basic formulations, the definitions of truth and similar notions, and not about the discussions found in papers on the truth notion, which are but loosely connected with the nucleus of the philosophic “truth-problem.” There are problems and disciplines of great scientific interest that only the force of tradition has linked with the philosophic “truth-problem”:

1. Problems regarding the development of hypotheses in science— why this or that theory was accepted, and so on; the function of scientific discussion, as revealed in this or that science in this or that period.
2. Problems involved in the study of how opinions of groups come into existence and how they die out; public opinions, ideologies, and so on.
3. Logistic problems related to expressions of opinions on opinions: formulation and axiomatization of expressions such as “prove” and “imply,” for example.
4. Practical proposals to standardize and sharpen the expressions of opinions on opinions when greater accuracy is thought desirable; proposals to avoid this or that expression or to use the expressions e_1 and e_2 as synonyms in certain discussions, etc. Such proposals can be justified without reference to the philosophic “truth-problem”: the later “problem” is reduced to questions belonging to (1), (2), (3), or (4) as soon as an attempt is made to state it clearly.

Logical Equivalence, Intentional Isomorphism, and Synonymy as Studied by Questionnaires

In Memory of Gerrit Mannoury

In recent discussions on synonymy among logicians and philosophers who use logical analysis as the main tool for inquiry, there has not been much reference to observational data and techniques. It is therefore not to be wondered that there is a considerable lack of clarity in the treatment of the relationship between conceptual constructions and empirical research by means of questionnaires. In the following, we shall discuss this relationship, keeping in close touch with the important contributions to the study of synonymy by Benson Mates.

Logical Equivalence and the Inconceivability of Difference as the Condition of Acceptance

Among logicians, it is common to think of synonymy as a narrower relation than logical equivalence: if two terms are synonymous, they are of necessity logically equivalent; but if two terms are logically equivalent, they may well be heteronymous. If this trend of usage and opinion is accepted, it will be a sign of the failure of a concept of synonymy if, according to that concept, all logically equivalent sentences are synonymous.

Benson Mates, in his article "Synonymy" (1950: 213), offers "some comments on other people's views" and describes certain concepts proposed in my *Interpretation and Preciseness* (1953). These concepts are called Qs1A-synonymy, Qs1B-synonymy, Qs2A-synonymy, and so on; Qs1 and Qs2

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refer to the names of certain questionnaires, and the letters *A* and *B* refer to the rules regarding how the answers to the questionnaires are to be taken (for example, as confirmatory or disconfirmatory evidence for the presence of Q_{81A}-synonymity, Q_{81B}-synonymity, and so on).

Mates finds it likely that according to one of the concepts introduced by means of questionnaires and the rules of confirmation for the answers to them, "all logically equivalent sentences would be synonymous" (1950: 215). The concept that Mates may have in mind here is Q_{85B}-synonymity. It has been introduced approximately as follows:

Two sentences, *T* and *U*, are said to be Q_{85A}-synonymous in relation to a pair of texts *S*₁ and *S*₂ and for a person *P*, if and only if *P* answers negatively to the crucial question of a questionnaire of the kind Q₈₅ with *T* and *U* as parts of the texts *S*₁ and *S*₂.

The crucial question for Q₈₅ is, Can you imagine circumstances (conditions, situations) in or by which you would accept *T* and reject *U*, or vice versa?

Two sentences, *T* and *U*, are said to be Q_{85B}-synonymous in relation to a pair of texts *S*₁ and *S*₂ and for a person *P*, if and only if they are Q_{85A}-synonymous in relation to that pair of texts and that person, and if *P*'s answer is an answer to the crucial question of Q₈₅ as this question is interpreted by the framer of the questionnaire.

In order to subsume an answer to questionnaire Q₈₅ under those requirements establishing Q_{85B}-synonymity, we must accept as tenable not only the hypothesis that the answer is meant to be negative, but also the supposition that the person tested interprets the question, *grasso modo*, as does the analyst.

The construction of Q₈₅ was inspired by philosophical writings and debates in which the inconceivability of a difference as the condition of acceptance seems to be taken as a criterion of synonymity, or of a very small distance of meaning.

In the following, we shall discuss some of the difficulties that emerge when the discussion of synonymity as conceived by the logician and philosopher Benson Mates is compared with the efforts to study synonymity, or more generally, meaning-distance, by means of observations

under standardized conditions. In the first part of this article, our attention will be focused on the question of how logical equivalence is related to synonymy when the questionnaire Q₅ is used in the meaning-distance study.

The empirical, soft-science methodology underlying the questionnaire approach does not require that one should attempt to find a definition (in the sense in which *definition* seems to be used in articles by Tarski and Mates). Tarski asked for and proposed an “adequate definition” of truth agreeing at least to a large extent with ordinary usage. Mates says that “there is no doubt that this notion, however vague it may be, is of considerable philosophical importance, and a good definition of it is greatly to be desired” (1950: 208). In a footnote, he adds: “As I use the terms, ‘to find a plausible definition of the term’, ‘to explicate the notion’ and ‘to define the notion’ denote the same process.”

It is our view that the range of phenomena more or less vaguely and ambiguously referred to by the term *synonymy* is so great that there is no reason to expect that a single, carefully introduced concept could somehow be made to cover *the* essential features of those phenomena. The studies by means of questionnaires, which Mates refers to, are inspired by the belief that there should be developed in relation to research techniques a large number of concepts of smallness of meaning-distance. Only after some empirical work has been accomplished with hypotheses framed by means of these concepts should the question be taken up of how one can reduce the number of concepts to a minimum. It seems that Mates, on the contrary, is mainly interested in discussing concepts that in an outstanding way might express the essential features of what competent people have so far classified as cases of synonymy. Among the features that Mates considers essential is the one that not all logically equivalent sentences are synonymous.

Mates seems to have asked the following question: is the concept of Q₅B-synonymy such that all pairs of logically equivalent sentences are ipso facto synonymous?

This formulation of the problem is misleading, for the following reason. The concept Q₅B-synonymy should not be viewed as a concept of synonymy in the narrow sense of an *adequate definiens* or *explicatum* of “synonymy,” but as a concept belonging to an open family of concepts of smallness of meaning-distance that is (at the present time) fruitful in em-

pirical studies of the heterogeneous phenomena vaguely and ambiguously referred to as synonymy.¹

Complex designations such as Qs5B-synonymy and questionnaire-synonymy, which contain as subordinate parts (meaning, as designation fragments) the term *synonymous* or *synonymy*, are to be considered as technicalizations of "synonymous" and "synonymy," and not as definitions as in the terminology of Tarski or Mates.

Therefore, if the concept of Qs5B-synonymy is accepted, and all logically equivalent sentences should turn out to be Qs5B-synonymous, this would not warrant our deducing that all logically equivalent sentences are synonymous.² The acceptance of Qs5B-synonymy does not imply the acceptance of it as an adequate definition or even the acceptance of the possibility or desirability of constructing adequate definitions.

Let us then proceed to the question "Is it not to be expected that all logically equivalent sentences as a matter of fact turn out to be Qs5B-synonymous?"

Sentences of the skeletal form "*T* is Qs5B-synonymous with *U*" might be taken as abbreviations for "*T* is Qs5B-synonymous with *U* for all persons, in relation to all texts." If the sentences are used within a discussion concerning a definite investigation that involves a class of persons and texts previously mentioned, "all" might be taken to refer to all members of this class. If not, it is much less obvious what "all" might refer to. The possibility that "all human beings" is meant may be discarded, because hardly any expressions would then ever fall under the concept. For the sake of illustration, let "all persons" stand for "all students at the University of Oslo" and "all texts" for "all English textbooks used by those students." Since Mates (1950) quotes Carnap, let "logical equivalence" be understood in the sense that Carnap in his *Introduction to Semantics* (1942) attributes to *L*-equivalence, that is, mutual *L*-implication.³ It is defined in relation to a set of rules, not to use occurrences of expressions.

Suppose, now, that two sentences *T* and *U* are logically equivalent in a language model *L*, which is supposed to cover the natural language of person *P*, belonging to the class of persons under consideration. By saying that *T* and *U* are logically equivalent (in the sense of Carnap), we do not imply that anybody knows or ever will know that they are logically equivalent. Nor is it implied that *T* and *U* have ever been used before appearing in the

texts selected in Q₅. No previous use occurrences may have been produced. Consequently, logical equivalence between *T* and *U* does not imply that they have ever been used in accordance with or in disagreement with any explicit or implicit semantical rule. If *T* and *U* have been used, they may have been used in any way whatsoever. Two logically equivalent sentences in *L* may, for example, happen always to have been used as antonyms.

If, now, *P* is confronted with a questionnaire Q₅, and if the logically equivalent sentences *T* and *U* are used as crucial sentences, it may or may not turn out that they are Q₅B-synonymous for him in relation to the pair of texts chosen. There is, in other words, no guarantee that logically equivalent sentences are Q₅B-synonymous. In spite of this, it may be methodologically justifiable tentatively to assert as a soft-science working hypothesis that all pairs of logically equivalent sentences are Q₅B-synonymous.

There may be high positive correlations between the two properties within important classes of sentences and of people, or there might be in the future a well-established hypothetico-deductive system covering these phenomena, from which a theorem implying the hypothesis could be deduced. Considering the absence of an established correlation, the above-mentioned hypothesis, if formulated as an assertion, would seem at least premature.

Let us then suppose that *P* believes that *T* and *U* are logically equivalent (in the sense of Carnap). It is to be expected that this highly increases the chances that they are Q₅B-synonymous for him—in general or at least in relation to certain wide classes of contexts. If they happen to be Q₅A-heteronymous, might we then say that *P*'s answer to Q₅ is a result of mistakes in logic or of misinterpretation⁴ of the questions? I do not think so.

Let the two sentences, *T* and *U*, be " 2^{10} is less than 1,000" and "1,024 is less than 1,000." Our hypothesis is that for at least 5 percent of those who believe firmly that *T* and *U* are logically equivalent, they are at the same time Q₅B-heteronymous. The author of this article belongs to this 5 percent. In the way that I and many others have been taught arithmetic, it is necessary to do some calculations to establish that $2^{10} > 1,000$, but not to establish that $1,024 > 1,000$. I believe that I am able to conceive of mistakes having been made in any calculation. Therefore, I believe that I am able to conceive the possibility that 2^{10} is less than 1,000. This I am able to do in

spite of my conviction that 2^{10} is greater than 1,000. " 2^{10} is less than 1,000" and " $1,024$ is less than 1,000" are consequently Q₅B-heteronymous for me, because I can conceive of the possibility of a text showing that 2^{10} is less than 1,000. If this text precedes a use occurrence of " 2^{10} is less than 1,000," I would accept it but still reject " $1,024$ is less than 1,000."

For persons for whom the above exemplifications of *T* and *U* are Q₅B-synonymous, "Philip believes that $2^{10} < 1,000$ " and "Philip believes that $1,024 < 1,000$ " are very likely to be Q₅B-heteronymous. Thus, the complication discussed by Mates does not arise in the way he describes, since the conceivability of a difference in cognitive acceptability is taken as a criterion in questionnaires of the kind Q₅. This does rule out that Q₅B-synonymity is not too wide a concept for certain purposes. The usefulness of the concept of Q₅B-synonymity is apparent only as part of a conceptual structure in which similar, but not identical, concepts serve similar, but not identical, purposes.

If "logical equivalence" is not taken as referring to rules but to a kind of relation between sentences in use, the relation between logical equivalence and Q₅B-synonymity might well be very intimate. In no case, however, does it seem convenient to use only those concepts of logical equivalence such that logically equivalent sentences could not possibly be Q₅B-heteronymous.

Intentional Isomorphism

One of the main trends in the use of the expression "expresses the same assertion as" is such that explications in the direction of intentional isomorphism seem more adequate than those in the direction of logical equivalence.

An important question is how one could best study empirically this trend of usage, and construct concepts in line with it. The well-founded rejection by Carnap, Mates, and others of a general identification of synonymity with logical equivalence or with identity of the conditions of confirmation—in those senses of these terms that they have in mind—seems in part to be the result of the view that the term *synonymity* ought to be used in such a way that intentionally heteromorphic expressions cannot be synonymous. It seems that they believe or assume that such a proposal, if fol-

lowed, would lead to a usage in substantial agreement with usage in general or in the texts written by linguists, logicians, and philosophers.

In the material gathered by questionnaires there are a number of answers symptomatic of that trend. Many expressions can be viewed as complexes consisting of simple or atomic expressions. If subjects are confronted with texts in which both the complex and the atomic expressions occur, they show a strong tendency to judge the complex to be questionnaire-heteronymous with the atomic, regardless of all other relations between the expressions.

This tendency has been studied by means of the questionnaires Qs1–Qs5. It has been found, for example, that “in the year 1920” is sometimes judged to be questionnaire-heteronymous with “in the year A.D. 1920” even in texts in which only happenings in the twentieth century are discussed. Even in a context with explicit, obvious references to Oslo, “at the University” is sometimes judged to be heteronymous with “at the University of Oslo.”

The arguments offered in these and similar cases are mainly of the following kind: the expression xyz is heteronymous with the expression xy because z has a meaning and it occurs in xyz but not in xy . This argument is used in spite of the circumstance that the subject interpreted the text in which xy occurred in no way different from that in which xyz occurred.

On the other hand, there are rather marked tendencies in usage (including that of linguists) of such a kind that requirements of sameness of intentional structure (including the case of intentional isomorphism) are far too strong. The widespread tendency to answer affirmatively to questions as if “is true,” “is the case,” and “is perfectly certain” were synonymous, is symptomatic of less rigorous requirements.⁵ I cannot see why future research should be better served by making a monopoly of the use of the term *synonymity* in such a way that one trend of usage, the one roughly in the direction of sameness of intentional structure, is taken as the best or most convenient. Moreover, whatever the direction in which the term is made more explicit, any concept of synonymity should be constructed with careful reference to research techniques that have already been tested in studies of natural languages.

The term *isomorphical N-synonymity* is proposed as a concept that, so to speak, lies between the concepts adapted to formalized languages with sys-

tems of explicit rules and the concepts concerned with the delimitation of kinds of usages:

Let a and b be two sentences, and let the analysis of them down to the smallest meaningful parts (according to a given system of classification) be such that they can be written:

$$i^a - j^a \dots - m^a$$

and

$$i^b - j^b \dots - n^b$$

1. "The sentences a and b are 'isomorphically N-synonymous'" shall mean the same as $m=n$, and there is a set of k rules, $R_1 \dots R_i \dots R_k$, by means of which it is stated that for all i , i_a shall mean the same as i_b within the field of application M , and there is no rule stating anything logically inconsistent with this set of rules.

Let us suppose that each of the rules $R_1 \dots R_k$ as well as a and b are used at least once and that no violation of the rules has occurred. If the rules are followed, i_a means the same as i_b in use; but what does that mean? In order to obtain a concept of isomorphical N-synonymity that allows subsumption and that is related to procedures already existing, a modification of (1) shall be proposed:

Let " i_a shall mean the same as i_b " be changed to " i_a shall be used in such a way that i_a and i_b are Qs1-synonymous for the users." Let (1), thus modified, be referred to as (2).

Now, the existence of explicit, semantical rules for the vernacular that hold without exceptions is doubtful, and, in any case, such rules are rare.⁶ A concept that made no reference to rules might be more useful.

3. "The sentences a and b are isomorphically Qs1-synonymous for the person P in the class of situations S " shall mean the same as "the pairs of the smallest corresponding parts of a and b that P considers meaningful are for P in S Qs1-synonymous, and so are a and b ."

S can be interpreted narrowly as a class of verbal contexts or more widely as a class of situations in which a or b or parts of them occur.

By means of this concept of isomorphical Qs1-synonymy, we may now, returning to our previous discussion, say that there is a certain percentage of people for whom no pair of sentences are Qs1A-synonymous⁷ that are not also isomorphically Qs1A-synonymous. Or, tentatively, the stronger assertion may be made that for a certain percentage of people two sentences are Qs1A-synonymous if and only if they are isomorphically Qs1A-synonymous.

The goal of formulating criteria by means of which " 2^{10} is less than 1,000" is distinguished from " $1,024$ is less than 1,000" can be attained by a questionnaire; let us call it Qs22. It may roughly be said to be concerned with the operations that are performed in order to verify the truth of a statement. To the extent that the smallest meaningful parts of two statements have differences corresponding to differences in operation, one may expect that Qs22, or questionnaires of a similar kind, can bring the differences to light. Qs22 contains three questions:

1. How would you go about showing or proving that T is true?
2. How would you go about showing or proving that U is true?
3. Is there any part—including the smallest details—of the first procedure that would have to be different from the second?

If the respondent points out a difference, T and U will be said to be Qs22-heteronymous. If the answer is negative, it will be taken as a confirmation that T and U are Qs22-synonymous.

In the case of " $2^{10} < 1,000$ " and " $1,024 < 1,000$," most people would, I tentatively assert, answer (3) affirmatively—saying, for example, that the behavior involved with " $2^{10} < 1000$ " includes multiplying $2 \times 2 \times 2 \dots$, or consulting a table of powers, whereas the second procedure would not include this.

In general, any application of different semantical rules would result in Qs22-heteronymy.

It is hoped that this article throws some light on the relationship between conceptual constructions and empirical research in general, and questionnaire procedures in particular. It cannot be overemphasized that

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conceptual construction must have some basis in empirical observation and that more research is needed to develop further the relationships between technical concepts such as that of intentional isomorphism or interchangeability *salva veritate* and the empirical phenomena for which they are formulated in the last analysis.

A Study of *Or*

The “Natural History” of Logic

The development of logic as a scientific discipline has brought with it an immense, purely verbal, manipulatory system of discriminations. In the case of another science, that of mechanics, Ernst Mach long ago, in his *Die Entwicklung der Mechanik*, traced the development of concepts of force from crude commonsense notions to the pinnacle of abstract mathematical conceptualizations in modern science. Immense elaborations of the latter sort, and the lack of gross, overt, motoric reactions, have obscured the behavioral aspect of scientific concepts and have made it very difficult for the scientist to remember and recognize a connection with prescientific levels of thinking, perceiving, and acting. Many people regard it as something next to mysterious that formal logic, from a strictly causal point of view, has attained its present form. One of the great tasks of scientists trained both in logic and in the behavioral or psychosocial sciences is to make this development understandable. A “natural history” of logic must be written just as one might write the natural history of horses or of tulips. Studying the learning or understanding or use of an inference such as “if p or q , and not p , then q ,” we may, roughly speaking, proceed by mainly (nonverbal) behavioral and perceptual techniques or by mainly verbal techniques. The underlying assumption of the former is that basic logical distinctions and procedures have a behavioral or functional basis just as, let us say, distinctions in mechanics or morals do. We assume that we are always within the general system of human discriminations as studied by psychology or,

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more generally, by the anthropological sciences—and this holds good whether the distinctions are made by schoolchildren or by eminent professional logicians. The professionals were once schoolchildren, and we assume there must be a process of learning or development that can be studied in detail from a causal point of view through all the stages of an individual's life.

Use of Logic and Talk About Logic: Meta-Logical and Object-Logical Verbalized Tasks

In using mainly verbal approaches, it is important to distinguish two subtypes that may respectively be called the meta-logical approach and the object-logical approach. Let us say that we are interested in the genesis of conceptions of 'or' as used in modern symbolic logic. Two main concepts are mentioned in modern textbooks, the exclusive and the inclusive 'or'. In elementary textbooks or in propositional calculi, they are usually introduced by matrices:

Inclusive disjunction (<i>vel</i> -junction)		Exclusive disjunction (<i>aut</i> -junction)	
p	q	$p \vee q$	$p \wedge q$
T	T	T	F
T	F	T	T
F	T	T	T
F	F	F	F

Using questionnaires, we may, for example, ask boys and girls the following: "Peter made a bet that the Volga is in Russia or in Romania. It is in Russia as well as in Romania. Did Peter win the bet?"

Or we ask, "Do you use *or* in such a way that if Edward says that Peter or Paul is a bachelor and Peter is a bachelor, then Edward has told the truth?" Or, again, "Can one infer that Jack is married to Joan if one knows that he is not married to Phyllis and that he is married to Joan or Phyllis?"

In the last two cases, the attention of the subject is turned by the instructor toward rules of inference or concepts of 'or'. The subject is, so to speak, induced to take up the role of a logician, and not merely of somebody using logical distinctions. In these cases, he exemplifies opinions

about logical distinctions. His point of view is meta-logical. In the first case, the subject is likely to use a concept or notion of 'or' that he has, perhaps without knowing about it, and that he uses without being aware of using it. The questionnaire is object-logical rather than meta-logical. The distinction is closely related to that between *use* and *mention* in modern analytical philosophy.

Both approaches lean heavily on the verbal task instruction, the questionnaire. One may try to avoid this by experimenting on nonverbal behavior or perceptions.¹ One may ask, What do the conceptualizations connected with *or* consist of, and how do they show up in nonverbal behavior and perception? In the following, I shall not speak of this approach in which verbal stimulation and observation of verbal reactions are minimized. I shall concentrate on the verbal approaches. The main objective will be to show how the study of the ontogenetic development of logic presupposes studies of how people use certain terms. Without knowing how people use connectives, we cannot know their logic.

Or and the Sentential Connectives V and A of Symbolic Logic Systems

The following is a report of a study of inferences involving *or*. In logic, "*p* or *q*" is mostly said to be a disjunction or disjunctive connection between *p* and *q*. The term *disjunction* must in that case express rather different concepts, because *or* has many different functions. Two of the concepts have well-known names: "the inclusive or" and "the exclusive or."

Important logical operations involving disjunction can be easily exemplified within the thinking of fairly young children. Some subclasses or kinds of such operations may be symbolized by the following schemata:

1 <i>p</i> or <i>q</i> <i>p</i> <i>~q</i>	2 <i>p</i> or <i>q</i> <i>~p</i> <i>q</i>	3 <i>p</i> or <i>q</i> <i>p</i> <i>p</i> and <i>~q</i>	4 <i>p</i> or <i>q</i> <i>p</i> <i>p</i> , and <i>q</i> undetermined
5 <i>p</i> and <i>q</i> <i>p</i> or <i>q</i>	6 <i>p</i> and <i>q</i> not: <i>p</i> or <i>q</i>	7 <i>p</i> <i>p</i> or <i>q</i>	8 <i>p</i> not: <i>p</i> or <i>q</i>
			9 <i>~p</i> and <i>~q</i> not: <i>p</i> or <i>q</i>

If the symbols \vee and $\&$ are used for *or* and *and*, some of the schemata are transformed into valid (questionnaire responses invalid) kinds of inferences (within the system of certain contemporary logicians). For example, in the system PM, we have:

(1v)	(2v)	(3v)	(5v)
$p \vee q$	$p \vee q$	$p \vee q$	
p	$\sim p$	p	$p \& q$
$\sim q$	q	$p \& \sim q$	$p \vee q$
invalid	valid	invalid	valid

Similarly, writing a (abbreviation for *aut*) for *or*, we get in this notation:

(1a)	(2a)	(3a)	(5a)
$p a q$	$p a q$	$p a q$	
p	$\sim p$	p	$p \& q$
$\sim q$	q	$p \& \sim q$	$p a q$
valid	valid	valid	invalid

One may ask, What is the genesis of these inferences? Ontogenetically, we may ask at what stage, if at any, do people who are uninfluenced by professionals begin to infer in this way? Are they able to formulate the inference rules? Do they conceive the rules to be violable?

This approach started with *or*-clauses in everyday language and worked in the direction of symbolic logic systems. One may, on the other hand, work in the other direction: pick out valid inference schemata within the systems of certain logical textbooks and substitute *or* for \vee , and so on. Or, more generally, we desymbolize the texts. In that case we get inference schemata that to a definite person, P , may be classified into three types: valid, invalid, and nonsensical (awkward, puzzling). The following are examples of schemata that, for many people, fall into the third category:

(5)	(7)	(10)	(11)
$p \text{ and } q$	p	p	$p \text{ and } \sim p$
$p \text{ or } q$	$p \text{ or } q$	$q \text{ or } \sim q$	$p \text{ or } p$

If we work in this direction, that is, present the subjects with desymbolized propositions from formal logic, the question of how the subjects interpret the formulations is not pressing. The propositions to be presented might be picked out with this problem in view, and the phrasing of the

desymbolization carefully selected. However, when the point of departure is the inferences formulated by the subjects in their everyday language, the question of interpretation is far more difficult.

Many professional logicians today tend to state that in ordinary language *or* is used for the concept of exclusive disjunction. If this were true, we would have an important and easy way of studying inferences expressed by *or*. We would then know that if, for example, Betty says "Peter or Oscar lives in Paris," she has intended to use the concept of "exclusive or." If she then adds that "Peter lives in Rome, therefore Oscar lives in Paris," and we make some plausible assumptions, we shall then be able to conclude that Betty has made a valid inference of type (2a).

We would be able not only to say this, but also to say that Betty *intended* to make a valid inference of this kind and succeeded. Thus, we would be able to recognize certain inferences, some valid, some invalid, by pointing to the occurrence of *or*. Unhappily, there is evidence that this kind of simple observation is quite insufficient to establish such conclusions.

A Questionnaire Study of the Use of *Or*

To study inferences in which *or* is used to express a connection between propositions, I administered a set of questionnaires to about 350 American college students between the ages of seventeen and eighteen. They had never taken a course in logic.

Qs37 No. 13: *Jack's Marriage*

Text: Yesterday *A* and *B* made a bet. *A* said, "Jack is either married to Joan or he is married to Phyllis." *B* said, "I bet you five dollars this isn't so." *A* accepted the bet.

Questions:

1. If Jack is married to Joan, then would you consider that *A* won the bet?
2. If Jack is married to Phyllis, then would you consider that *A* won the bet?
3. If Jack is neither married to Joan nor Phyllis, then would you consider that *A* won the bet?
4. If Jack is married to both Joan and Phyllis, then would you consider that *A* won the bet?

A second questionnaire, Qs37 No. 15, is identical with the first except that *either* is left out. Lexicographers and other linguists generally suggest

that "either-or" stresses disjunction in various ways. One might therefore expect a stronger tendency among inferences expressed by "either-or" schemata to involve the concept of exclusive disjunction. The pairs of questionnaires gave evidence of this tendency.

A third questionnaire is closely related to the first two. The setting is more oriental, suggesting polygamy.

Qs37 No. 17: Abdullah's Marriage

Text: Half the male population of a Near Eastern country enjoy more than one wife. One day, *A* and *B* made a bet. *A* said, "Either Abdullah is married to Siri or he is married to Nina." *B* said, "I will bet you five American dollars that this isn't so." *A* accepted the bet.

Question: If Abdullah is married to Siri, but not to Nina, would you consider that *A* won the bet? (Four questions analogous to those of Qs37 No. 13 were asked. A representative of the Middle East objected that there is no country with such a high incidence of polygamy, and the questionnaire will not be used again.)

Through a pair of questionnaires, Qs37 Nos. 19 and 20, a use of *or* rather different from that in the previous texts was studied.

Qs37 No. 19: The Fellowship

Text: Yesterday *A* and *B* made a bet. *A* said, "Jack is qualified to receive a fellowship in this department." *B* said, "I bet you five dollars he isn't." *A* accepted the bet.

Fellowships in this department are open to those who are competent either in Greek or in Latin.

Question: If Jack is competent in Greek, but not in Latin, would you consider that *A* won the bet? (Etc.)

Qs37 No. 20 is identical to No. 19 except that *either* is left out. In order to be able to study the effect of changes in the relations between *p* and *q* on the tendency to make inferences such as "If *p* and *q*, then *p* or *q*," we used a questionnaire in which *p* and *q* had the same denotation, making "*p* and not *q*" and "not *p* and *q*" contradictory or awkward or absurd:

Qs37 No. 18: George Washington

Text: In history book *X*, one finds the statement "George Washington crossed the Delaware." In history book *Y*, one finds the statement "The father of our country crossed the Delaware."

A said to B, "Either X is right or Y is right." B said, "I will bet you five dollars that this isn't so." A accepted.

Question: If X was right and Y was wrong, would you consider that A won the bet? (Etc.)

Further, we used a pair of questionnaires such that "*p* and *q*" was made into a rather strange proposition:

Qs37 No. 14: *The Temperature*

Text: Yesterday A and B made a bet. A said, "This evening the temperature at the campus will be either more or less than 60° F." B said, "I bet you five dollars this will not be so." A accepted the bet.

Question: If the temperature at the campus turned out to be more than 60° F, would you consider that A won the bet? (Etc.)

In Qs37 No. 16, the term *either* is left out.

Being interested in a comparison between the American use of *or* (*either-or*) and the Norwegian use of *eller* (*enten-eller*), I translated questionnaires Qs37 Nos. 13, 15, and 17 and administered them to Norwegian students in their first year of college who were taking an introductory philosophy course. No. 13 with *either-or* and No. 15 with *or* included the story about Jack's marriage. No. 17 with *either-or* included the story about Abdullah's marriage. In addition, the Norwegian students were given a translation of the Abdullah questionnaire with *or* in place of *either-or*. Two Norwegian versions of the questionnaires were used, owing to some doubts concerning the most adequate translation. However, the differences in results were negligible, and the results will here be presented together.

Results

A survey of the results is given in table 1.

"Unclassifiables" are those answers to question 4 that were neither a definite yes nor a definite no; for example, "Yes, or perhaps no." "Unclassifiables" are also answers other than the standard yes, yes, and no to questions 1, 2, and 3, respectively; other answers were considered strong symptoms of misunderstanding.

One of the main results of our studies with Qs37 is that the conceptual structures involved in *or*-inferences at prescientific levels show marked

Table 1: Survey of Results of Or-Questionnaires Qs37.

		Excl. %	Incl. %	N Clas- sifiable	Unclas- sifiables
No. 13 Marriage Jack (American)	e/o	89	11	36	3
No. 13 Marriage Jack (Norwegian)	e/o	94	6	127	25
No. 15 Marriage Jack (American)	o	75	25	36	6
No. 15 Marriage Jack (Norwegian)	o	88	12	57	12
No. 17 Marriage Abdullah (American)	e/o	74	26	66	11
No. 17 Marriage Abdullah (Norwegian)	e/o	88	12	93	15
No. 17 Marriage Abdullah (Norwegian)	o	74	26	69	19
No. 18 George Washington (American)	e/o	76	24	55	8
No. 14 Temperature (American)	e/o	72	28	36	3
No. 16 Temperature (American)	o	67	33	27	12
No. 19 Fellowship (American)	e/o	2	98	65	7
No. 20 Fellowship (American)	o	2	98	44	9

Note: e/o = question with "either . . . or"

o = question with "or"

N = number of subjects

variations depending on the subject matter of p and q and the verbal context (including the instruction).

At the one extreme we may place Qs37 No. 13, the story about Jack's marriage in which *either-or* is used. About 90 percent (94 percent of the Norwegians) answered in a way that would be valid if their conceptual structure involved the exclusive disjunction. That is, their answers were of the FTTF variety. About 10 percent (6 percent of the Norwegians) gave answers suggesting TTTE.²

As for the interpretation of these 10 percent, it is tempting to say that they have drawn invalid inferences. For seventeen-year-old youngsters, the Qs37 questionnaires represent a very easy kind of task considered as a problem in reasoning. There is nothing positive to suggest that the 10 percent

did not *intend* to draw an inference in accordance with a rule “If p and q , then p or q .”

On the other hand, the answers of the 90 percent in no way prove the presence of a conceptual structure involving the rule of inference “If p and q , then not p or q .” We can only say that the answers are *compatible* with the hypothesis of the existence of such a rule or a disposition to follow such a rule.

We may place Qs37 Nos. 19 and 20 (the fellowship) at the other extreme. To these questionnaires, 98 percent answered as if they were thinking according to a rule of inference “If p and q , then p or q .”

The temperature questionnaire that used *or* gave results in between the previous ones, with 67 percent suggesting the use of an “exclusive or” inference.

A small team of graduate students of logic (and philosophy in general) was asked to try to construct a set of questionnaires of such a kind that the ratios between FTTF and TTTF answers would show a variation all the way from 9:1 to 1:9. They did not succeed, however, in finding suitable questionnaires for the ratios of the middle region, around 1:1; the nearest to this ratio was 2:1.

The task involves the use of hypotheses about what determines the answers of the subjects. Among the various hypotheses discussed, we may mention the following:

1. In betting contexts, subjects tend to use an inference rule corresponding to the “exclusive or” if they find the probability of p & q highly improbable. The marriage of Jack to both Joan and Phyllis was presumably judged highly improbable; thus we see a 90 percent use of the “exclusive or.”
2. In betting contexts, subjects tend to use an inference rule corresponding to the “exclusive or” if they do not think of the possibility of both p and q being true. The possibility of bigamy presumably did not occur to the subjects; therefore, 90 percent.
3. If, in any context, the truth of p or of q is implied to be a sufficient condition of a state of affairs, p and q will be considered a sufficient condition. That is, a rule “If p and q , then p or q ” will be used. Thus, in the context of Qs37 Nos. 19 and 20, the subjects interpreted

knowledge of Greek as well as knowledge of Latin individually to be a sufficient condition for obtaining a fellowship; therefore, they found the combination of Greek and Latin sufficient. Accordingly, they answered as if using a rule "If p and q , then p or q ."

4. The particle *or* is sometimes used not disjunctively, but as a coordinating particle (see *Oxford Dictionary*). It is then used in "unstressed positions" ("Do you want whiskey, gin, vermouth, or cakes?"). In such cases, the compatibility or other relations between p and q are largely left undetermined. Therefore, "If p and q , then p or q " is considered valid when *or* occurs as a coordinating rather than a disjunctive particle.

The answers to Qs37 Nos. 14 and 16 show in a very convincing way the absence among the subjects of abstract general rules of inference corresponding to those of symbolic logic systems—even if a rule is said to be present when only implicit or as a disposition. The awkwardness or impossibility or absurdity of temperatures being neither more nor less than 60° , or being both, disturbed the subjects and provoked long discussions. Very few reacted rapidly and consistently, as would be expected if they had applied an inference rule of a simple kind. The complexity of the answers may be taken as symptomatic of the existence of very complicated inference rules. It would, however, require much work to construct systems such that answers would fit in.

A small number of subjects (less than 10 percent) wrote down comments to their answers, and from these it can be gathered that some kinds of *inference rules* are in use, mostly referring to *or*. Thus, subject 253 answered no to Qs37 No. 15, question 4, and added, "Jack is married to Joan or he is married to Phyllis. Therefore being married to both, he cannot be married to Joan or Phyllis, for the *or* excludes one."

On the other hand, some comments suggest that their authors do not conceive of any rules but simply perceive or intuit *what is said* by A and B . The short comment of subject 303 to Qs37 No. 13, question 4, reads, "A said 'one or the other', not both." To the awkward question 4 of Qs37 No. 14, subject 338 exclaimed, "This seems somewhat ridiculous—the temperature in the same place can't have two values at the same time. However, A lost since he said 'either . . . or'."

This last comment is of interest because it suggests that its author believes in the existence of one constant meaning or function of “either-or” overruling the consideration that two temperatures at the same place is ridiculous, and having nothing to do with the contents of the disjunction.

The answers to the fellowship questionnaires indicate, however, that the expression “either-or” rarely does induce people to answer in the direction of the “exclusive or” if the content of the proposition makes the use of the “inclusive or” somewhat more natural.

In the contexts suggesting the use of the “exclusive or,” the introduction of *either* induces some more people to choose this interpretation. This holds true also for the Norwegian *enten*. On the whole, the Norwegian students seem to use their *eller* more for the exclusive disjunction than the Americans use their *or*. However, the same trends are present in the Norwegian material as in the American: a tendency to abandon the exclusive interpretation when *either* (*enten*) is left out, and when the possibility of both p and q being true is pointed out, as in the context of Abdullah’s marriage.

In any case, it is wise to infer from the answers that many *inbaltliche* considerations are relevant for the subjects when they are asked to judge inferences involving *or*. Or, to be more careful, considerations are relevant that at least in relation to certain logistic systems are *inbaltlich*.

With regard to the material covered by the questionnaires, to what extent do professional logicians have hypotheses concerning logical inference among nonprofessionals? A small number of professionals were asked to state what might be the most frequent answers to the Qs₃₇ questionnaires. The straggling answers confirmed the impression that it is difficult and hazardous for professionals to pronounce on how nonprofessionals reason and how they use the logical connectives without having performed a series of experiments. Only, however, with close reference to experiments and tests is a terminology likely to develop that can function as a common idiom for investigators who favor different theoretical approaches.

Typology of Questionnaires Adapted to the Study of Expressions with Closely Related Meanings

If carried out with an eager and open mind, painstaking empirical research leads us into vast uncharted regions of facts and relations. The more we penetrate the depths of such regions, the more we are fascinated. We are—often against our will—drawn farther and farther into the study of details and intricate structures revealed by the data found or collected. Bystanders are often astonished by this: what has gradually broadened into a whole world, is, seen from outside, only a secondary and special field or at least a field of no importance for any great problems—and the outsider is right; it is only rarely that a piece of empirical research obtains a great weight in solving or clarifying central problems.

Much that is being done, especially in the methodologically less advanced areas of science, is not very interesting or attractive except to a few people working in exactly the same areas. This holds good of some studies carried out by Socratic interviews or by (standardized) questionnaires intended to reveal more and more about the relations between words of closely related (cognitive) meaning. It is my contention, however, that in spite of the, in many ways appalling, crudity of the questionnaire techniques and in spite of the manifest inability of many subjects to enter into difficult linguistic or other fields, the data gathered are often apt to reveal or suggest as much to the researcher as do penetrating meditations or introspections based on data found in one's own head or gathered in an informal way. Primarily, though, it is the very richness of the materials, the surprising differ-

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ences among "ordinary people" (nonphilosophers and nonlinguists) in how they conceive terms, phrases, texts, and functions of language—together with uniformities at places one could not have foretold—that spur one to renewed efforts.

In this article, I shall try to give a condensed survey of most kinds of questionnaires used in my studies of synonymy and of some kinds used by other authors (Revie, L. Lövestad, H. Tønnessen). The list forming the main part of this article will, I hope, facilitate the work of other researchers who wish to contribute to empirical semantics. There is much confusion about how questionnaires can be used and an underestimation of the variety of approaches or techniques.

In particular, there are three old misconceptions to be fought: (1) If one wishes to know how a person uses a term, the questionnaire method consists in asking the person directly how he uses it. (2) If the formulations of the questionnaire are misinterpreted, there is nothing one can do with it to find out how and why. (3) When a researcher asks a subject a set of questions, this set is identical with the questions the researcher asks himself in his research program.

Questionnaire is in this paper taken in a wide sense: a set of formulations of questions in a definite order that are intended to be placed before an identified group of people under conditions—verbal and nonverbal—that are to some extent known or tested or standardized. It is a research instrument that is adapted to the need of asking more than one person the same questions one or more times under various conditions.

If controversial questions are asked, this does not imply that the researcher believes he can get the correct answer by using questionnaires containing just those questions. Very often, the researcher is interested primarily in questions that are not put into the questionnaire. Thus, only a minority of my questionnaires pose direct questions to the subjects such as "Do *T* and *U* express the same meaning to you in this context?" and if direct questions are asked, the answers are not taken at face value. The material obtained may furnish evidence in an indirect way; it may strengthen or weaken an argument that is relevant (but scarcely decisive) for the questionnaire. Last, but not least, there is nothing in the technique of questionnaires that precludes including competent people as subjects. Professionals and experts do, however, tend to refuse to answer isolated questions and in-

sist upon reformulating, modifying, and expanding the formulations of the questionnaire in a way that makes *comparison* with other respondents difficult. This is not an obstacle of major importance, but it certainly makes it unwise to use professionals as subjects except when they are valuable for the specific aim that has led the researcher to frame the questionnaire.

The following classificatory system suggested itself as the number of synonymy questionnaires that I developed in the course of research increased and it began to be difficult to survey their similarities and differences. It is reasonable to expect that other classifications will become more convenient or theoretically more important at later stages of research.

In studying closeness in meaning by means of questionnaires, it has been one of my aims to develop at least one kind of questionnaire corresponding to each kind of well-known philological and philosophical criterion or definition of (cognitive) synonymy. One might have expected that this aim would result in questionnaires with "crucial" questions reminiscent of the formulations used in those criteria or definitions. The indirect character of most (good) questionnaires and the nonoperational character of the criteria or definitions make the relation between professional definitions rather intricate, however.

An example will illustrate this. Carnap introduces a concept *intentional isomorphism* that may be said to express a kind of strong relation of sameness of meaning. Why is there no questionnaire directly corresponding to it, that is, a standardized set of questions including, and only including, what must be answered in order to identify a case of logical isomorphism? First, the concept of intentional isomorphism is constructed in relation to sets of semantical *rules*, not *use*. Like the concepts of *L*-implication and *L*-equivalence, it has no meaning except for formal languages. Now, questionnaires are instruments for finding out how people *use* certain expressions, not for ascertaining the formation and transformation rules of calculi (which possibly have never been used by anybody). Second, if the concept of logical isomorphism is somewhat changed so as to be relevant for investigations of use, there will not be one characteristic questionnaire corresponding to it, but a characteristic *set* of ordinary questionnaires: if two complex expressions $x_1y_1z_1$ and $x_2y_2z_2$ can be analyzed each into three components, x_1, y_1, z_1 and x_2, y_2, z_2 , the concept of logical isomorphy can be said to require synonymy not only of the pairs $x_1y_1z_1$ and $x_2y_2z_2$ but also of the three pairs of minimum expres-

sions $x_1x_2, y_1y_2,$ and z_1z_2 .¹ This means that we may use questionnaires of any of the families surveyed below, but in characteristic quadruplets.

Terminology

Individual copies of questionnaires have the same status semantically as individual occurrences of sentences. There may be a vast number of copies of them. We shall think of questionnaires as written. It is important, however, to remember that when used orally, they give rise to acoustic processes, each one with its peculiarities.

Each questionnaire (Q) has a name; those used in studying synonymy (s), in a vague and broad sense of closeness in meaning, have the name Qs and two numbers, as in Qs4 No. 3. Qs4 is to be considered an abbreviation for Qss4, the second *s* for "statement." Questionnaires of the class Qss study likeness of meaning between statements. Closely corresponding questionnaires concerning synonymy of designation (terms) get the name Qsd4, and so forth. Similarly, the *i* in Qsi4 and the *q* in Qsq4 stand for "imperative sentence" and "question sentence," respectively.

To avoid unnecessary complications, questionnaires identical with Qs4 except for minute or peripheral modifications of wording have been called Qs4 questionnaires.

Each synonymy questionnaire concerns a pair of sentences or designations, the so-called crucial expressions the synonymy of which is to be investigated—for example, "true" and "perfectly certain." The second number in the questionnaire name changes with changing expressions to be investigated or with changing order of expressions: Qsdi No. 11 investigates the use of "true"—"perfectly certain"; Qsdi No. 12 investigates "perfectly certain"—"true"; Qsdi No. 13, "the case"—"perfectly certain"; Qsdi No. 14, "the case"—"true," and so on.

Just as in the case of sentences, their meaning and the attitude toward them change with the context; therefore, the order in which the questions are posed may affect the answer.

The name Qsdi is (1) a class designation denoting all questionnaires that are generated by inserting definite designations into two open places in a sentence sequence. The sentence sequence is the same for each of the questionnaires; the open places are those of the crucial expressions. Qsdi is also (2) a name for the skeletal sentence systems (sentence schemes) we get

by taking away the crucial expressions from the particular questionnaires Qsd1 No. 1, Qsd1 No. 2, etc. If nothing else is explicitly stated, Qsd2 is intended as a class designation. Broader classes are designated by such symbols as Qsxy—the class of all kinds of synonymy questionnaires, including those concerning question sentences.

Next in importance after the classification of synonymy questionnaires into those concerned with declarative sentences, imperative sentences, question sentences, and designations, we have found the classification according to the terms used in, and the meaning intended by, the questions of the questionnaire. This gives the *fundamentum divisionis* of the following classification. Five families of questionnaires are distinguished.

The first family includes all questionnaires in which the subject is asked, roughly speaking, whether two given expressions mean the same or express the same. The crucial questions include what we call *synonymy expressions*: “express the same assertion,” “mean the same,” and so on. Nearly all questionnaires of this family have asked whether a pair of expressions mean the same *for the respondent* when they occur in a *definite context* given in the questionnaire. More general questions are, of course, possible within the range of variation of the questionnaire family.

Using the terms of the questionnaires, one may say, roughly speaking, that to be taken as confirmations of synonymy in some sense, the answers must *state* that certain statements express the same or mean the same. In the classification, this requirement is named a *synonymy requirement*.

Characteristic of the first family is the close relation between crucial question and synonymy requirement. A subject is asked, for example, whether two sentences *T* and *U* express the same, and the answer yes is the only requirement for classing *T* and *U* as synonymous (for example, Qs-family-1-synonymous) for the subject relative to the contexts.² The “level of directness” of the questionnaires is maximal. They are used primarily to observe how answers undergo variation with variations of subjects and—often more important—with change of contexts.

The second family and the rest of the questionnaire families avoid “mean the same” and related expressions. They are with few exceptions more complicated and judged more difficult by the respondents. Roughly speaking, a first group of questionnaires of family 2 invites the respondent to try to conceive of variations in conditions affecting the truth-value of sentences.

The concepts of synonymy intended to be studied by these question-

naires are related to the truth-value concepts proposed by Carnap and others. The synonymy requirement is inconceivability of a difference in acceptance. A second group avoids the appeal to the imagination and thus *decreases the task character of the questionnaires*. Roughly speaking, various conditions are indicated in the questionnaire, and the respondent is invited to answer whether under those conditions the crucial sentences would be true. A third group is a plain true-false questionnaire, by which the respondent is invited to judge each sentence of a series containing the crucial expressions as to its truth-value. The synonymy requirement is that each pair of sentences, the members of which differ only in crucial expressions, has the same truth-value.

It should not be necessary to go into detail in characterizing the families 3, 4, and 5. Rough characterizations are given below.

Family 1

Use of synonymy expressions such as "synonym," "mean the same," "express the same (proposition, assertion)."

Synonymy requirement: sameness of meaning.

Associated philosophical concepts: interchangeability *salva significatione*, synonymy in intention.

Level of directness: maximum. If N. N. *says* that *T* and *U* mean the same for him, *T* and *U* mean the same for him.

Genus 1

Synonymy expression: "express the same assertion."

Synonymy requirement: expressiveness of same assertion.

Mode of presentation: invitation to imagine interchange of expressions.

Prototype: Qs1 (Naess 1953: 360 [SWAN I]).³

Species 1

Synonymy question related to a definite occurrence in a definite text and to a definite event of interpretation by the respondent.

Prototype: Qs1 (ibid.).

Species 2

Synonymy question more general than in the case of Qs1. Generalization in respect of occurrences, texts, events of interpretation.

Prototype: Qs2 (ibid., p. 364).

Species 3

Like species 2, but furnished with an introduction requiring a definite criterion of sameness of cognitive meaning to be used by the subject. (The criterion is, roughly, sameness of conceived conditions of truth.)

Prototype: Qs30 (Naess 1954a: 37).

Genus 2

Synonymy expression: "mean the same."

Synonymy requirement: sameness of meaning.

Mode of presentation: invitation to imagine interchange of expressions.

Prototype: Qs3 (Naess 1953: 366 [SWAN I]).

Species 1

Synonymy question related to a definite occurrence in a definite text and to a definite event of interpretation by the subject.

Species 2

Same synonymy expression as for species 1, but question of a more general nature.

Prototype: Qs3 (ibid.).

Genus 3

Synonymy expression: "synonym."

Synonymy requirement: synonymy.

Mode of presentation: subjects asked to list synonyms of a given word.

Such a questionnaire has not been used by the author, but it appears in a mimeographed doctoral thesis by Revie (University of California). It is not classed as a synonymy questionnaire "proper," because then the phrasing of many theorems on likeness of meaning would be more complicated.

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Species 1

No reference to texts or persons; straightforward invitation to list synonyms.

Prototype: see dissertation by Revie.

Family 2

Synonymy requirement: nonexistence or inconceivability of a difference (of some kind) under a variety of imagined or stated conditions.

Associated philosophical concept: inconceivability of logical inequivalence.

Genus 1

Synonymy expression: "same conditions of acceptance (and rejection) of some kind."

Synonymy requirement: inconceivability of difference in conditions of acceptance.

Mode of presentation: invitation to conceive of different conditions of acceptance.

Prototype: Qs10.

Species 1

Synonymy expression: "same conditions of acceptance"; no specification of kind of acceptance.

Synonymy questions related to a definite occurrence in a definite text.⁴

Prototype: Qs5 (Naess 1953: 368 [SWAN I]).

Species 2

Synonymy expression: same as for species 1.

Synonymy question of a more general character: texts not given, authors said to be different.

Prototype: Qs10.

Species 3

Synonymy expression: "same conditions of acceptance *as true* (versus rejection as false)."

Synonymy requirement: inconceivability of difference in conditions of acceptance *as true*.

Synonymy question related to definite occurrence in a definite text.

Prototype: Qs11.

Genus 2

Synonymy expression: no synonymy expression.

Synonymy requirement: interchangeability *salva veritate*.

Mode of presentation: invitation to answer whether certain statements are true or false. The whole questionnaire is formulated in the object-language.

Prototype: Qs29.

Family 3

Synonymy expressions: no synonymy expression, or "(same) necessary or sufficient conditions," etc.

Synonymy requirement of (two) statements: if the first, then the second, and vice versa. Synonymy requirement of designations: if subsumability under the first, then under the second, and vice versa.

Associated philosophical concept: logical equivalence.

Genus 1

Synonymy expression: "(same) necessary, sufficient (condition) of."

Synonymy requirement: truth (or tenability, etc.) of *a* being a necessary and sufficient condition of truth of *b*.

Mode of presentation: texts with *a* presented; subjects invited to answer pairs of questions: do you consider it a necessary (sufficient) criterion of the truth of *a* that *b*₁ is true?

Prototype: Qs4 (Naess 1953: 369 [SWAN I]).

Species 1

Synonymy expression: "necessary and sufficient criterion (condition) of the truth of."

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Synonymy requirement: truth of *a* necessary and sufficient criterion of truth of *b*.

Prototype: Qs4 (ibid.).

Species 2

Synonymy expression: same as for species 1.

Synonymy requirement: same as for species 1 plus "truth" of *b* necessary and sufficient condition of truth of *a*.

Prototype: Qs20.

Species 3

Like species 1, but modified in such a way that answers are *use occurrences* (for example, a yes answer to "Do you accept that if N. N. loves his neighbor as himself, he is a good man?" rather than "Do you accept the statement 'If N. N. . . .'").

Mode of presentation: invitation to answer questions about the relation between the crucial expressions and each member of a list of statements $V_1, V_2, \dots, V_3, \dots$. The questions have the form "Do you consider it a necessary (or: sufficient) condition of the truth of *T* (or: *U*) that V_1 is true?"

Prototype: Qs25.

Genus 2

Synonymy expression: "if V_1 then (not-) *T* and if V_1 then (not-) *U*," etc.

Synonymy requirement: for all *i* and *j*: if V_1 then *T* and if V_1 then *U*, if V_j then not *T* and if V_j then not *U*.

Prototype: Qs6 (Naess 1953: 369 [SWAN I]).

Family 4

Argumentational synonymy. Closely related to family 3 but marks the transition from formal logic to logic of argumentation (*pro et contra dicere*).

Genus 1

Synonymy expression: none.

Synonymy requirement: (1) sameness of pro-arguments and sameness of contra-arguments; 2) same strength of pros and cons.

Mode of presentation: invitation to imagine arguments that would count as pro (or con, or be neutral) in relation to T (or U) but not in relation to U (for T).

Prototype: Qs8 (ibid., p. 374).

Genus 2

Synonymy expression: none.

Synonymy requirement: same as for genus 1.

Mode of presentation: list of statements offered as possible arguments.

Subjects invited to answer questions concerning the relation of the statements to T and U .

Family 5

Synonymy expression: none.

Synonymy requirement: sameness of extension, sameness of subsumption, sameness of class membership.

Associated philosophical concepts: synonymy concepts for extensional languages.

Genus 1

List of expressions offered.

Crucial question: "is this an example of . . . ?"

Synonymy requirement: sameness of example subsumptions.

Prototype: Qs18.

Genus 2

No initial list of expressions offered. Subjects invited to give examples.

Examples offered by subject A presented to B and those by B to A , etc.

Prototype: Qs19.

Family M

Metaquestionnaires

The aim of metaquestionnaires is to test the questionnaires already presented to a subject by studying how the subject interpreted the crucial question (etc.) of the questionnaire. (Metaquestionnaires thus defined need not be synonymy questionnaires.)

Genus 1

Mode of presentation: a subject is asked whether he would have given a different answer to a (definite) questionnaire if the crucial question had not been what it was, but one of the questions on a list presented to the subject.

Do these so-called synonymy questionnaires *really* measure or somehow indicate synonymy? The answer must be negative, because there is no such thing as synonymy as such. In philological and philosophical literature the term has been defined in various ways, and many (mostly inapplicable) formulas have been put forth as criteria of synonymy. When we reformulate the criteria in such ways that they can be applied to concrete instances of use of certain sentences or other units of speech, the answers to the questionnaires are seen to be *relevant* as material. There is, on the other hand, no criterion applicable to concrete cases of verbal communication that deserves the name of *the* criterion of synonymy in use.

In various publications Rudolf Carnap has pointed out that the analysis of synonymy in natural languages by questionnaire procedures and by other techniques outlined in my *Interpretation and Preciseness* (SWAN I) supports his "intensionalist thesis."⁵ This thesis "says that the assignment of an intension is an empirical hypothesis which, like any other hypothesis in linguistics, can be tested by observations of language behavior. On the other hand, the extensionalist thesis asserts that the assignment of an intension, on the basis of the previously determined extension, is not a question of fact but merely a matter of choice. The thesis holds that the linguist is free to choose any of those properties which fit to the given extension; he may be guided in his choice by a consideration of simplicity, but there is no question of right or wrong" (Carnap 1956: 62).

Arguing for his intensionalist thesis, Carnap (ibid., p. 63) invites the reader to suppose

that one linguist, after an investigation of Karl's speaking behavior, writes into his dictionary the following:

(1) *Pferd*, horse,

while another linguist writes:

(2) *Pferd*, horse or unicorn.

Since there are no unicorns, the two intensions ascribed to the word *Pferd* by the two linguists, although different, have the same extension. If the extensionalist thesis were right, there would be no way for empirically deciding between (1) and (2). Since the extension is the same, no response by Karl, affirmative or negative, with respect to any actual thing can make a difference between (1) and (2). But what else is there to investigate for the linguist beyond Karl's responses concerning the application of the predicate to all the cases that can be found? The answer is, he must take into account not only the actual cases, but also possible cases. The most direct way of doing this would be for the linguist to use, in the German questions directed to Karl, modal expressions corresponding to "possible case" or the like.

The texts and reference lists used in many questionnaires have just this function, to elicit verbal reactions toward objects or relations that the subjects may not have reacted to before and possibly never will react to except verbally.

The main weakness of the extensionalist thesis as formulated (and rejected) by Carnap seems to me to be an implicit assumption that empirical studies of *extensions* could end in a definite hypothesis H_0 about sameness of extension of two expressions T and U of such a kind that there would be no group of hypotheses H_1, H_2, \dots covering equally well the materials of the observational journals. However, if hypothetico-deductive methodology is applied to observations of concrete instances of use of T and use of U , there will always be a wide range of choice in formulating hypotheses of a general character.⁶

In order to adapt semantical concepts of extension and intension to pragmatics (in the sense of Carnap and others), detailed analysis of concrete empirical procedures is highly desirable. In terms of operations, concepts of

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intension are not necessarily vaguer or more speculative than those of extension. The objection raised against intensional concepts may indeed be effectively met as suggested by Carnap (1956: 60): "If for a given semantical concept there is already a familiar, though somewhat vague, corresponding pragmatical concept and if we are able to clarify the latter by describing an operational procedure for its application, then this may indeed be a simpler way for refuting the objections and furnish a practical justification at once for both concepts."

The Empirical Semantics of Key Terms, Phrases, and Sentences: Empirical Semantics Applied to Nonprofessional Language

Characterization of Empirical Semantics Through Contrasts

In what follows I will not discuss every sort of empirical semantics, but a kind or trend that has been given the proper name Empirical Semantics and has mainly flourished in Scandinavia. Its characteristics are most easily grasped by contrasting it with other trends.

For example, consider the increase of status of particulars since the start (about 1962) of the international ecological movement. We now find (1) study of the *particular* habits of *particular* insects; (2) study of the effects of putting 100 new chemicals into the environment through the study of the astronomical number of particular effects resulting from the combined action and interaction of 2, 3, 4, . . . 100 of those chemicals.

In contrast to the logical empiricism of the mid-1930s, Empirical Semantics stresses the requirement of testability of every direct and implied hypothesis about the actual use of terms, phrases, or sentences. For example, Alfred Tarski's work on truth included assertions about the agreement of his truth definition or construction with the ordinary or common use of the term. The testability of those assertions was low, however, and there was no agreed-upon methodology for testing them. The assessment of credibility was left to a kind of intuition believed to be more or less infallible among persons speaking the language. Logical empiricists, except Otto

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Neurath, accepted Tarski's assertions about the use of *true* and *truth*, and of many other terms, without questioning them. In this they were of course not alone, but it contrasted with their high-level requirement of testability and derivability in the natural sciences, primarily in physics. Their methodology had a kind of blind spot in the matter of actual use of terms. Empirical Semantics stepped in and offered to clarify the limits of the adequacy of the Tarski definition, using testable methods.

Karl Popper, and later Paul Feyerabend and others trained by Popper, was here in agreement with logical empiricists, although he tended to avoid semantical hypotheses. Popper certainly relied upon them indirectly, for example, in assertions about induction. If this term is not used in ways that represent only a subclass of the usages of the term, the thesis that good scientists never apply induction falls to the ground. The same holds for what he says about metaphysics.

In the late 1930s, logical empiricists cooperated with Charles W. Morris and introduced the triad syntactical, semantical, and pragmatic questions in dealing with language. In pragmatics the approach was called empirical, but it lacked a research methodology. Empirical assertion of grave importance in syntactical and semantical work was still left unsupported and relied upon an implicit appeal to intuition. Such appeals are of course unavoidable in more than 99 percent of our discussions, but are of little weight when we face disagreements about usage that affect the arguments for or against a thesis of interest.

Belief in intuition corroborated by highly sophisticated arguments also characterized the Ordinary Language movement. John L. Austin, Norman Malcolm, and Herman Tønnessen argued about the grammatical principle "no modification without aberration," concentrating on phrases like "I yawned voluntarily (or deliberately)," which Austin held to be "impossible" under certain circumstances. Tønnessen maintained a "principle of tolerance" based on empirical semantical investigations. Tønnessen contended that the intuitions of Austin concerning adverbs were deductions from old-fashioned grammar. He confirmed his own views through comparison with yawning students, of which he found a great number in university reading rooms. When Feyerabend states (1976: 381) that for "years Imre Lakatos and I were alone in our attempt to inject a little life, some personal note into philosophical debate," he forgets Tønnessen.

The highly intelligent and sophisticated assertions of Strawson about the performative function of sentences like "It is true" can be tested only in concrete life situations. It is my contention that if we as researchers in such situations asked ordinary people about the purpose or meaning or job of such a sentence, they would in much less clever, but clearer, phrases outline different performative and nonperformative functions. Lacking doctrinal prejudices, they would avoid many pitfalls.

This example brings me to a second main tendency within Empirical Semantics: the relatively high regard for hypotheses put forth by nonprofessional philosophers concerning language.

An investigation of the use of the term *true* and related terms such as *fact* and *probable* turned in the 1930s to the question of how nonprofessional philosophers would themselves conceive the meaning and function of these words.

Philosophers have ready-made answers to both the use and the conception of the use among people outside their clan. I quote some phrases they use:

"The opinion of the man in the street on the truth-notion is . . ."

"[T]o naive people truth means . . ."

"The usual criterion of error is . . ."

"Wenn man einen Bauer fragen wollte, warum er glaube, dass . . ."

"Die sinnliche Wahrheit ist die Wahrheit des Kindes."

"Das Volk, als solches, oder der grosse Haufen, ist an seinen Vorstellungen an die Wahrheit der Sinne gebunden."

"Der Character des Volkes und seiner Wahrheit ist Realismus."

"[T]he definition of the truth and falsity of beliefs is not quite as simple as common sense and McTaggart suppose."

"If common sense had been asked to formulate what is meant by the truth of a belief, this is probably what it would have written . . ."

"Dies liegt in dem blossen Sinn der Worte wahr und falsch."

"'Wahr' (in der üblichen Bedeutung) ist . . ."

"Die Wahrheit ist, wie es scheint, von allen Menschen als etwas Festes, als etwas Unveränderliches und Ewiges, angesehen."

The quotations indicate a grave underestimation of nonphilosophers, especially in regard to the diversity of "embryonic" philosophical theories among nonprofessionals.

Asked (roughly) what is common to all that is true, people who have never read any philosophical papers or conversed with philosophers answer with formulations that have been put into more than thirty classes. Class 8 we might call the Tarski class. What is true is identified with what is the case, what is so, or its function is conceived as a mere repetition of an assertion. The most frequent kind of formulation, class 10, identifies what is true with what is shown or what is proved. It might be called the verification class.

Logicians trespassing in empirical semantics have objected to the truth-verification notions, saying that "not true" is clearly not synonymous with "not verified." Nonphilosophers defend their notion by maintaining synonymy hypotheses like the following:

- (1) " p is true" syn " p is verified"
- " p is not true" syn " p is falsified"
- (2) "it is not true that p is true" syn "it is falsified that p is verified"

From (1) and (2) it does not follow that

- (3) "true" syn "verified"
- "not true" syn "not verified"

I shall not try to defend every nonphilosopher's view but only suggest that such views are closely similar to a variety of professional views. The consistency of the nonphilosophers' views and terminologies tends to be underrated.

Philosophers mostly think that "agreement with reality" is the commonsense conception. Formulations that include references to reality, real things, and similar ideas are put in class 1 in the above-mentioned systems; such formulations represent the fifth most frequent way of answering the question.

The nonprofessionals' formulations describing criteria or giving defini-

tions of “what is true” may, of course, be classified in many ways. Above I have referred to a class 1. In the same classification, formulations are put into:

Group 4: if truth is identified (in various senses) with a relation of correspondence with facts or actual things.

Group 7: if truth is identified with facts or real things.

Group 8: if truth is identified with what is the case, what is so, what is as one says; or when a function of mere affirmation is described. Compare the answers of person *B* to the utterance of *A*: *A*—It is raining, *B*—(1) Yes, it is raining, (2) It is raining, (3) That is so, (4) Yes (the “Tarski group”).

Group 9: if what is true is identified with something fixed and determined by man himself (“Truth as Convention”).

Group 11: if what is true is identified with what cannot be challenged, disproved, contradicted, or discussed or with what is indisputable.

Group 12: if what is true is identified with what is unchangeable or what cannot be otherwise. Central notion: changelessness (the “Parmenides group”).

Group 13: if what is true is identified with the relation of agreement or correspondence between something and *observation*.

Group 14: if what is true is identified with something unmistakable, with something that *cannot be mistaken* (the “Incorrigibility group”).

Group 15: if what is true is identified with that which cannot be *doubted* or with what is not actually doubted by anyone (the “Cartesian group”).

Sometimes the formulations are put forth with a low degree of definiteness of intention, but occasionally further conversation reveals astonishing consistency.

Empirical investigations suggest that *a large variety of philosophical outlooks* are alive among nonprofessionals in a potential, implicit, or “embryonic” form. One-sided education in colleges and universities perhaps reduces this diversity and works toward gray uniformity or excessive reliance upon the experts of the day.

Let me add some words to the characterization of Empirical Semantics through contrasts.

Empirical Semantics is heavily influenced by Bronislaw Malinowski and the linguists who since the late nineteenth century have fought the "intellectualist" conception of language as expression of thought. In the supplement to Ogden and Richards's provocative work *The Meaning of Meaning*, Malinowski pointed to basic functions of language in situations of fishing, hunting, and other relations studied by social anthropology—and now, also by modern etiology. Malinowski's conception and methodology contrasted markedly with the model of language as a calculus or as a set of rules for true/false assessments, and with the early Wittgenstein. In Vienna, Karl Bühler was active in propagating a much broader and more empirical-minded view of language. When the later Wittgenstein proposed a more empirical and etiological view, this was greeted in circles of Empirical Semantics with sincere appreciation, but it did not seem to convey more or clearer information than the old social anthropology of language. The tumultuous applause accorded to Wittgenstein's nonintellectual view of language seems to have had as a necessary condition the insularity of Anglo-American philosophical centers in matters of social science.

In the 1940s social science was able to sweep into European and Anglo-American universities on a grand scale. A highly critical, if not contemptuous, attitude toward the newcomer prevailed in philosophical environments, however. Logical empiricists tended to talk about social scientists, including psychologists, as hardworking, not-too-sharp fellows who did not really know what they were doing. With some patience this could, however, be shown them through logical analysis of the sentences they produced.

At the very bottom of the social science methodological status ladder we find the questionnaire, perhaps best known among philosophers from semicommercial undertakings and Gallup surveys.

From the very beginning, questionnaires have been extensively used in Empirical Semantics. Their usefulness or even unavoidableness is rather obvious if uses of a sentence among a large group of users are to be tested in an interpersonally satisfactory way.

For example, in a small room with a globe near the subject, he or she will very often use the sentence "The Earth is round" if asked to give an example of something true. The example is convenient for introducing questions about the certainty that the Earth is round, possibilities of errors,

questions of preciseness when compared to formulations in terms of a mathematical sphere and of more complex forms. In more or less “open interviews,” a “common characteristic of truth” question could then be introduced under standardized conditions. Nonstandardized conditions involve too many variables.

Rules or Habits

The kind of research programs that in the 1940s got the label Empirical Semantics (ES) must be understood as in part a strong reaction against uncritical applications of the conception of a language as a system of rules. De Saussure’s distinction between *parole* and *langue* (speech and language) is fruitful to a point but can be overdone. ES also reacted against the position that many of the classical problems of philosophy could be clarified—or even solved—by transforming them from ontological and epistemological questions to questions of language and of choice of sets of rules.

The limited force of rules may be understood from the fact that no set of rules, however comprehensive and however precise, can unambiguously determine relevant behavior patterns of an action. This holds, for example, for an action of the kind called “testing the hypothesis *H* through method *M*.” What is indicated through rules is primarily traits of behavior that *seem to be in need of being indicated*, given certain habits or mores of the community *at the time of making the rule* and in its social and physical context. Whether we do research or fish with the help of big nets, and try to describe our doings, there always *remain* relevant undescribed traits. The “outsider,” if sufficiently distant culturally, cannot use the description, whatever the quality of the translation.

Main Fields of Research in Empirical Semantics

The ES investigations have centered upon a fairly small number of topics:

1. *Occurrence analysis*. Description of function or connotations of certain key terms based on analysis of large numbers of occurrences of the terms in definite texts. There are several sorts of occurrence analysis.

2. *Metaoccurrence Analysis*. (a) Synchronic description of definitions and other metaoccurrences and their relation to occurrences. Among other data, 500 definitions of *truth* by nonprofessional and scores of definitions by professional philosophers were analyzed. (b) Metaoccurrence analysis as part of historical research. For example, metaoccurrences of *democracy* from the French to the Russian revolutions.
3. *Agreement and disagreement analysis*. For example, assessment of the scope and function of pseudoagreement and pseudodisagreement in scientific argumentations and ideological disputes.
4. *Definiteness of intention analysis*. The definiteness of intended meaning is always limited, or, in other terms, the net of discriminations relative to things (not constructs, like π) has a limited finiteness. There are ways to discover the limits, assess their function, and, if desirable for certain purposes, increase the definiteness or depth of intention.
5. *Synonymity*, or more generally, the equivalence and analyticity analysis. Elaboration of tests of criteria of close similarity of meaning or, more generally, of function. Estimation of degree of analyticity in communication. Whereas there may be doubt about certain analyticity concepts, the fruitfulness of the empirical kind has already been confirmed.
6. Contributions to theory of communication and to the development of educational instruments favoring more effective cognitive communication. These contributions furnish the conceptual framework of the above-mentioned researches.

Closely connected with ES are the efforts to elicit "embryonic" philosophies of truth and related topics among nonphilosophers, and of logical calculi like propositional calculi, and of probability. As a curiosity it may be mentioned that the frequencies of unlikely series—for example, getting six heads when tossing a coin six times—are markedly underrated if we permit ourselves to accept the internationally established statistics as correct. Such statistics have been extensively verified, but established propositional calculus should *not* be taken as an absolute. Here I disagree with Piaget, who in his experiments and interpretations takes established logic and physics at face value.

Synonymy, Operations, and Operationism

Pseudoagreement Analysis

The synonymy research within ES places a heavy stress on operational definitions, as part of the requirements of interpersonal testability, but emphatically rejects operationism (à la Bridgman or in modern forms). The rejection is a clear consequence of the semantics of preciseness and the rejection of “correct meaning.” With “intelligence” as a T_0 , one may expect an indefinite multiplicity of plausible synonymic alternatives of differing orders of preciseness. To choose one and act as if it were the only one is a form of linguistic corruption. Furthermore, fruitful operational definitions are mostly transintentional, or they are technifications rather than precisizations. The designation *definition* is misleading.

The positive attitude toward interpersonal, explicitly described operations and the negative attitude toward operationism are part of a general attitude within epistemology or semantics: that of unending, expanding research rather than of science. At no point are there decisive conclusions. Research programs are closed for practical, not cognitive, reasons.

For example, agreement and disagreement are never free of a possible mixture of pseudoagreement and pseudodisagreement. The research on, say, agreement on definitions or precisizations of the term *democracy* is in ES steered in such a way that no tests are taken to be conclusive. There are only instances of confirmations and disconfirmations, the weight of which cannot be exactly assessed.

The conceptual framework of ES is simple in the essentials:

Basic predicate:

(1) Syn (xyz, tuv)

“ x is synonymous for y in situation z with t for u in v .”

x is said to be a synonymic alternative (more loosely: “interpretation”) of t , and t of x .

Situations are in (1) considered to be singular, dated situations.

Three special cases of (1):

(2) $(y)(u)$ Syn (xyz, tuv)

"for all persons is x situation z synonymous with t in situation v ."

(3) $(z)(v)$ Syn (xyz, tuv)

"in all situations is x for y synonymous with t for u ."

(4) Syn (xyz, tuv)

" x for y in z is synonymous with t for y in v ."

Synonymy is not defined, but a variety of operational definitions or technifications are introduced, such as substitutability of x with t .

On the basis of synonymy, a number of other concepts are introduced: precization, definition, pseudoagreement and pseudodisagreement, analyticity, biased interpretation, popularization, . . .

Precization is contrasted with specification and elaboration.

Experiment on Definiteness of Intention

One may struggle to find suitable words for a thought or feeling, but one may also struggle to find out what was meant by an utterance. The utterance may have had the form of an assertion, or it may belong to an accepted hypothesis within a science, but this does not solve the problem of what a particular person in a particular situation intended to express by the assertive sentence, or what it conveyed to listeners.

To investigate the latter, empirical semanticists performed certain experiments. I shall give one example: The experimenter announced a lecture to an association of students of physics, and about 250 gathered in an auditorium. After talking for about twenty minutes, the lecturer said "The Earth is surrounded by a gravitational field" in a rather natural context and without particular stress. This was a signal to a mob of assistants to invade the gathering with copies of a questionnaire, which were handed to the students. The basic questions read, "How do you interpret the utterance 'The Earth is surrounded by a gravitational field?'" "Do any of the following sentences convey to you what the utterance conveyed to you?"

Two classes of answers are of particular interest, the "I do not know" answers and the "no discrimination" answers. They reveal the limits of the definiteness of interpretation among hearers.

Are Alfred Tarski's Empirical Hypotheses Testable?

The clash of opinions on language was clearly evident behind the scenes at the Third Congress for Unified Science in the Salle Descartes at the Sorbonne. What was Tarski really trying to do in his masterly dissertation on truth? Generally, it was thus conceived:

The task which Tarski sets for himself is that of finding a materially adequate and formally correct definition of truth. The requirement of material adequacy is *simply* the requirement that the definition, once achieved, shall correspond more or less closely with that concept of truth which all of us have in mind before we ever undertake the task of explication.

(Linsky 1952: 3; my italics)

Tarski's important theory on truth, rescuing the objective or absolute concept of truth from relativism and subjectivism, was at the congress to be defended and duly hailed by Karl Popper.

I had a discussion note in which I maintained the following theses (here given in abbreviated form):

1. Tarski's theory contains empirical hypotheses, namely, statements about ordinary language (*die Umgangssprache*).
2. The statements are vague and ambiguous and not directly testable by research.
3. Testability implies operationalization: the finding and communication of procedures that can corroborate the modified hypotheses.
4. Preliminary tests by simple social science techniques involving questionnaires and occurrence analysis suggest that the adequacy of the Tarski analysis is very limited.
5. The extremely high level of preciseness and logical rigor in the formal development in Tarski's work contrasts dramatically with the sloppiness of the statements about ordinary language.
6. Any movement using the epithet *empirical* as a positive key term

should instigate empirical research in case this is necessary to confirm or disconfirm basic theories.

7. The term *true* is central in various fields of philosophy, and the suppression of certain directions of precisization (that is, a subgroup of concepts) impairs or stultifies our minds. The claim that one concept is adequate favors dogmatism.

In meetings before the opening of the session, Carnap contended that the empirical material and the inferences drawn from it would cause confusion, not clarification. Neurath's objections should suffice, and as they were well discussed beforehand, the plenum discussion would be fruitful and orderly. I agreed, having the feeling that nobody would think it even meaningful to do empirical *research* on ordinary language.

According to Tarski and those following him, the *Umgangssprache* permits unlimited (*unbeschränkt*) use of the concept of truth. Propositions that negate themselves are permitted.

Such a hypothesis is empirical and we must ask, How is it testable? By what procedures? How is the metaphor of "permittance" eliminated? How are the rules of the *Umgangssprache* found?

The weight of the criticism of Tarski's hypothesis is not that it is false, but that it is not made operational and therefore not tested.

A kind of test was made in 1936 and the result was negative.¹ It made use of open questionnaires related to the antinomy of the liar. The persons speaking the *Umgangssprache* did not interpret any sentences in such a way that they negated themselves. The existence of a *rule* of the *Umgangssprache* that permits it was not in evidence, nor a *rule* that prohibits it. Rules may be *invented* that approximately picture the complex regularities of ordinary usage. In that case, there will be no rule of unlimited use of *true*.

Analytic/Synthetic

A kind of analytic/synthetic distinction is introduced in ES, but not as an absolute distinction. The point of view of ES toward the debate on analytic/synthetic is best formulated in Tore Nordenstam's eminently clear dissertation, *Empiricism and the Analytic-Synthetic Distinction* (1972).

Ludvig Løvestad (1945a,b), using ES procedures, concluded in 1945

that the analytic/synthetic distinction plays little or no role in natural science, and explained why. His work is little known, however.

The procedure requires (1) splitting sentences into parts, and (2) introducing rules in relation to which sentences may be analytic or fall into a broader category of “analytoform.” A sentence is analytoform if, for at least one plausible interpretation (synonymic alternative), it is analytic.

A hypothesis that a sentence is analytic is confirmed only if it can be shown that it occurs within the context in which the rule is intended to be valid and only in relation to that rule. There may be a number of other rules (as in the case, for example, of the chemistry of acids) intended to cover the same or part of the same context. The same sentence may be nonanalytic in relation to all rules except one. In most cases, the task of interpretation of the rule formulation will not furnish any simple, definite conclusion because of ambiguity and vagueness.

So much about the role of rules.

Translations

Under what condition would the sentence U be a *perfect translation* of the sentence T ? The hunt for an eternally perfect translation for all people in all situations is rather pointless. As a point of departure we should, according to ES, take particular acts of communication and ask for synonymy:

(1) Syn ($Up_1s_1; Tp_2s_2$)

when, for example, s_1 is not a singular dated situation but a *kind* of situation—let us say, when the speakers are using an implement for fishing (à la Malinowski). The persons p_1 and p_2 may be considered to cooperate, in spite of having different mother tongues. Suppose after a time they use T or U as completely interchangeable in communication with each other *during fishing*. In other situations they may make a distinction. We may introduce various tests or operational criteria of the interchangeability. On the basis of (1) the presence of two different mother tongues (U and not T belonging to one, and T and not U belonging to the other) and (2) the presence of certain kinds of synonymy operationally introduced through interpersonal tests, we may define U as a *perfect translation* for p_1 and p_2 in s_1 and vice versa.

Generalizing, we may talk of the total class of persons p_1 speaking a certain language L_1 and the total class of persons p_2 speaking L_2 . The chances of finding a perfect translation in this case, even if the kind of situation s_1 is very narrow, is, of course, very small. For most purposes translations very far from being perfect may do the job.

At this point, measures of definiteness of intention are relevant. In general, one may say that the chance of a perfect translation is: (1) inversely proportional to the degree of definiteness of intention required; (2) proportional to the narrowness of class of persons; (3) proportional to the narrowness of class of situations; and (4) inversely proportional to the distance between the two languages.

If we do not envisage a practical situation like fishing, but the translatability of an abstract text, for example, a text on democracy, occurrence analysis and metaoccurrence analysis of a number of terms are required. The uses of the Russian term usually translated into Norwegian by the word *demokrati* are obviously influenced by events in Soviet Russia since 1917. The history of Norway has been quite different. Occurrence analysis today would reveal complicated differences. On the metalevel there are also differences. They may *in part* be roughly indicated by saying that economic relations between the citizens are in the Russian terminology highly relevant in estimating the degree to which a regime is democratic, whereas in Norwegian metaoccurrences, references are mostly to elections and the structure of government in general.

In any case, meaning hypotheses in the form of assertions that term A in language L_1 has the meaning B in language L_2 can be confirmed (or disconfirmed) only to a certain degree. There will never be a single hypothesis that can cover the total class of occurrences within an interval of time. This is a situation commonly found in any empirical field of study. Moreover, there will of course be very different kinds of hypotheses in relation to the great variety of precizations of the word *meaning*. In ES that term is avoided through use of the synonymy terminology. The above introduction of a term *translation* indicated how the elimination is done in a particular case.

The above implies a thesis of "indeterminacy of translation." There are, for example, indefinitely many rules (according to occurrence analysis) that in principle cover any set of occurrences of a term or sentence. Indefinitely

many translations will all fit the occurrences. (From this, however, do not follow certain negative theorems recently formulated by D. Føllesdal.)

One persistent trait of ES is not only the equiminded acceptance of diversity of interpretations and hypotheses, but even the stress on listing diversities. The attitude is closely connected with attitudes in plant geography, social anthropology, local history, and other “soft” natural and humanist fields of research. It is very different from dominant attitudes in formal logic, mathematical physics, and other “tougher” fields. One may say that the extremely positive attitude toward diversity is in line with theorem 24 of part V of Spinoza’s *Ethics*. “The more we understand particular things the more we understand God.”

“Showing” Contradictions

This year—the tricentennial anniversary of Spinoza’s death—a great number of experts on his work will be publishing and lecturing. Very few of them seem to believe in the fruitfulness of semantical studies. To me, however, the fruitfulness of ES occurrence analysis, and especially of equivalence analysis, seems beyond doubt in Spinoza research.

There are today still a number of experts on Spinoza who think they can *show* that Spinoza’s *Ethics* contains contradictions in the sense of inconsistencies. In a recent lecture before an audience of several hundred “friends of Spinoza,” Leszek Kolakowski (1973) announced a number of contradictions, some of which he even contended he could *prove*. According to the methodology of occurrence analysis, it is impossible to *prove* such inconsistencies. Empirical working hypotheses cannot be proved. The methodological situation in this matter is no different from that in historical geology or in cosmology.

If we analyze the occurrences and metaoccurrences of basic terms of the *Ethics*—*liber* (free), *determinata* (determined), *potentia* (power), *virtus* (virtue), and others—a variety of interpretations are open. This holds even if we add information from other texts of Spinoza, and from authors with, in part, similar terminology (for example, Descartes). I shall later concentrate on one source of differences of interpretation, the expressions of equivalence.

If we have a pair of sentences T_0 and U_0 that by superficial reading seem inconsistent, we might take this as a sufficient condition of inconsis-

tency: that for all pairs of plausible precisizations beyond a certain level of preciseness, the pairs are instances of logical inconsistency. The judgment of plausibility is, however, highly speculative. There is no room for proofs in a rigorous or even a sloppy sense; there is only room for working hypotheses of limited testability. I say *working* hypotheses, because the assessment of plausibility of interpretation depends on other sentences of the text that contain terms intimately connected with the terms found in T_0 and U_0 . Thus, research must proceed from a rather narrow set of terms or sentences to a very wide one. The sentences of the *Ethics* hang together—that we all agree on.

The diversity of interpretations that fit the given class of occurrences of certain terms or sentences is best conceived if we think of them as interpretative rules. Using the broad theorem of Mach-Duhem-Poincaré in general methodology, we may say that there are indefinitely many different rules of grammar and dictionary consistent with a given set of occurrences of a term or sentence. Let me mention a central term of Spinoza's *Ethics*: *liber*, free.

There is a famous absolutistic metaoccurrence of *res libera* (free thing) in part I of the *Ethics*. A "free thing" is by definition synonymous with "a thing that exists solely out of the necessity of its own nature, and is determined to act solely out of itself."

Every plausible interpretation of Spinoza's text at this point requires that we exclude human beings from the class of free things. Only one so-called thing is free, God, substance, or Nature. Nevertheless, Spinoza talks sometimes of the free human being, *homo liber*. If we accept the hypothesis that *liber* here is used in the same way as announced in his definition, we may infer not only that there is no *homo liber* but that the expression as it occurs in the *Ethics* involves a contradiction on the same shameless level as the famous "square circle."

This conclusion leads to difficulties, however. According to the note on theorem 54 in part IV, to live according to reason is to be free (*ex ductu rationis vivant, hoc est, ut liberi sint*). The free human being seems to be, in part IV, a being not determined to act solely out of itself, but to a high degree out of itself or from its own nature, or self-caused. Thus, Spinoza does not here exclude the possibility of free human beings.

It cannot of course be proved, but a rather good hypothesis is the one

that postulates an absolutistic and a nonabsolutistic use of *free* in Spinoza's texts. In other words, the term *free* is used in at least two senses. The absolutistic metaformulation might then be interpreted as synonymous with the more precise sentence "I am going to say (*dicetur*) that that thing is *absolutely* free, which exists *solely* out of the necessity of its own nature. . . ."

The talk about free human beings in the later parts of the *Ethics* will then naturally be interpreted in a nonabsolute sense of 'free'. This approach is quite successful, I think. It results in elimination of the threatening inconsistency when the metaoccurrence in part I is taken to cover all occurrences of *free*. Every alleged inconsistency proclaimed by Kolakowski (1973) and by a number of other distinguished scholars can be eliminated in the same way. (This is strictly a working hypothesis.)

Every sentence announcing what *will be* said, using *futurum simplex*, implies, if the definiteness of intention is taken to be fairly high, an announcement of the range of intended validity. The *Ethics* consisted originally only of the first part, and the absolutistic use is confined to that. Consequently, we consider the intended range of validity to be limited to part I.

Some experts think that Spinoza's *system* requires the absolute sense, but there is no way of getting to one single system as being that of Spinoza. What we can do is introduce reconstructions, more or less freely. Personally, I am for reconstructions that permit me to talk about human beings being able to obtain higher levels of freedom, that is, being able to *increase* their level of freedom. This means that I prefer reconstructions such that the term *free* is not used exclusively in an absolute sense.

In any case, neither the so-called determinism nor any other doctrine of the *Ethics* can be *shown* to contain inconsistencies. The methodology of occurrence analysis rules it out. A different methodology might be adopted, and in relation to that inconsistencies might be shown or even proved. No such methodology has been formulated by Spinoza experts, however.

Of more interest are attempts to interpret the *Ethics* in such a way that it becomes consistent from the point of view of formal logic. Professor J. Friedman has, in a not-yet-published dissertation, concluded that the proofs of part I of the *Ethics* obtain a consistent and valid form if 164 premises are added. This seems a somewhat large number, but all except about twenty are of a very innocent kind. The work is of interest for all who would wish to learn from Spinoza in a positive way.

Expressions of Extensional Equivalence

Nearness of cognitive meaning or function has always been a favorite theme of Empirical Semantics. A number of expressions in the *Ethics* suggest at least a kind of extensional or referential identity or near identity, in short, extensional equivalence with certain other expressions. Some pairs may be intensionally equivalent, but considering the nominalistic inclination of Spinoza, and also the difficulty of testing hypotheses of intension, I shall limit myself to extension.

Here are some of the expressions that consist of more than one word:

by <i>x</i> I understand <i>y</i>	<i>per . . . intelligo . . .</i>
by <i>x</i> we understand <i>y</i>	<i>per . . . intelligimus . . .</i>
to understand the same by <i>x</i> and <i>y</i>	<i>per . . . et . . . idem intelligere</i>
<i>x</i> does not mean anything else than <i>y</i>	<i>. . . nihil aliud significat quam</i>
<i>x</i> and <i>y</i> are one and the same	<i>. . . unum et idem sunt</i>
<i>x</i> is nothing else than <i>y</i>	<i>. . . nihil praeter . . . est</i>
<i>x</i> or (which is the same) <i>y</i>	<i>. . . vel (quod idem est) . . .</i>

Some of the others, consisting of only one or two words, are very common. The most common one is "*x* or *y*," *x sive y* (for example, "God or Nature," *Deus sive Natura*). Other very common ones are "*x* or *y*" (*x seu y*) and "*x*, that is, *y*" (*x, hoc est, y*).

In all, there are about 250 occurrences of expressions of extensional equivalence (see figure 1). Their exact interpretation is in most or all cases open to different views. The resulting differences in interpretation of the system of Spinoza are substantial, especially since most of the fundamental terms of the system occur in equivalences.

For example, the terms *power* and *virtue* are connected with several strong terms of equivalence. There is also an equivalence between *virtue* and *love of God*. It is said in the proof of theorem 42 in part V 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* everywhere for *virtue*, we get a text sounding of Machiavelli or Thomas Hobbes, and very tough-minded in the sense of William James.

Spinoza is said to be a *Gottbetrunkenener Mensch*. This characterization

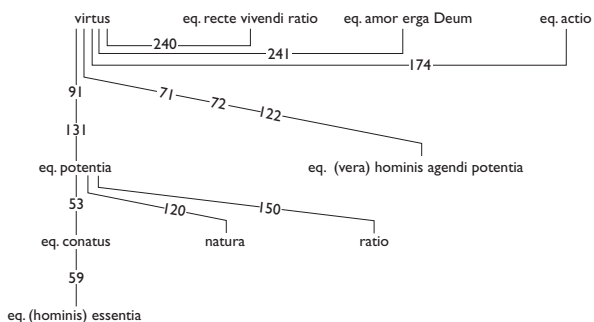


Figure 1. Strings of equivalence: an example. *Number references:* 53—Part III, Prop. 7z, Demonstratio; 59—Part III, Prop. 9, Scholium; 71—Part III, Prop. 55, Scholium; 72—Part III, Prop. 55, Cor. 2, Dem.; 91—Part IV, Def. 8; 120—Part IV, Prop. 33, Dem.; 122—Part IV, Prop. 52, Dem.; 150—Part IV, App. 3; 174—Part 5, Prop. 4, Scholium; 240—Part V, Prop. 41, Dem.; 241—Part V, Prop. 42, Dem. (Numbers refer to lists of equivalences in Naess 1976.)

would be still more to the point if, where he writes *virtue*, we placed *love of God* instead. Since we have two famous equivalences of God and Nature (*Deus sive Natura*), however, we could make a second choice and write Nature wherever he has *God*. He then suddenly changes from *ein Gottbetrunkenener* to *ein Naturbetrunkenener*, a kind of nature mystic.²

The semantical point to be made is that reconstructions must introduce a term or a complex expression that fits both *potentia* and *virtus*. Clearly, neither the term *power* nor the term *virtue* can do the job. Or one might define completely new terms, for example, *potus* or *virtia*, analogous to Eddington’s invitation to use *waveicle* as a term in physics for an entity that has specific properties of both waves and particles.

The important lesson is that the equivalences found in the *Ethics* rule out some interpretations of the basic terms as very implausible, but they leave room for a number of very different others.

Basing our concept of interpretation upon the kind of concepts of synonymy starting on page 67, we may confidently predict that there will not be any convergence of interpretations of Spinoza’s text with increased

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research. It is perhaps more realistic to put forth general interpretations of his system, or parts of it, as *reconstructions*. Sender/receiver preciseness depends upon using terms understandable today. This implies "translating" Spinoza in a way that makes manifest the many more or less doubtful auxiliary hypotheses necessary to fabricate the translation.

Empirical Semantics, and especially occurrence analysis of meta- and use occurrence, may be of some use in the clarification and validation of such hypotheses.

A Necessary Component of Logic: Empirical Argumentation Analysis

Logic Has Empirical Components and Needs Empirical Research

The use in argumentation of the calculus of propositions, or of Alfred Tarski's theory of truth, or of any other formal logical instrument involving the terms *true* and *false*, presupposes some sort of agreement or similarity between formal usage and common usage. This relation is an empirical relation not adequately revealed through intuition, but capable of being increasingly clarified through painstaking research, applying some of the research instruments of contemporary social science.

What holds good of formal theories involving "true" and "false" holds good of the logical constants and the primitive terms of the so-called philosophical logics. In this paper I shall not elaborate on the use of terms but attack a broader subject, that of empirical components in argumentation analysis. In my view there is a startling difference in quality between the treatment of the formal and the empirical components of problems raised.¹

Empirical questions are largely "solved" through appeal to intuitions of a low degree of testability. The terms *true* and *false* are used in argumentation, and one may try to single out their various usages by means of empirical research. In one analysis, I did not succeed in reducing the usages to less than thirteen different kinds.

This article was reprinted with permission from *Argumentation: Approaches to Theory Formation*, edited by E. M. Barth and J. L. Martens (Amsterdam/Philadelphia: John Benjamins Publishing Co., 1982), 9–22.

In what follows I shall mention some useful conceptualizations in argumentation research.

Argumentation Analysis

The term *argumentation analysis* may cover a large variety of approaches, but I shall confine myself to one kind of approach among the many. It is characterized primarily by a painstaking way of treating certain empirical questions that arise when one studies cases of explicit argumentation. Cases of explicit argumentation usually occur as parts of discussions and debates, sometimes of a rather polemical kind. To deal with these empirical questions scientifically, we use history, psychology, sociology, political science, and so on, as auxiliary disciplines, as well as common sense and what we experience in daily life. In empirical argumentation analysis, cases of argumentation are studied as acts or processes of communication between people and carefully recorded in observational journals. (Today's televised debates furnish rich intersubjective material.)

The approach to argumentation analysis that I shall talk about here specializes in investigating the superbly *open and deep* kind of argumentation. It should, in my opinion, characterize philosophical research. In philosophy, the chain of arguments is never cut off for good where it is traditionally cut off, be it because nobody so far has asked further questions or because practical people or scientists say it is pointless to continue. I am thinking here of chains, for example, of the following kind: "Why do you hold that p ?"—"Because q "; "Why do you hold that q ?"—"Because r ." . . . The "deep and open" approach to argumentation legitimizes continuation of the chain as long as the questioner can clarify what it is that he asks us to answer. This characteristic sets the approach apart from psychological and sociological studies of communication, and also from most classical and modern studies of rhetoric and debate. Increased collaboration with other approaches is not only possible, however, but highly desirable.

The approach is different from, but of course not incompatible with, those largely inspired by formal logic, such as that of Paul Lorenzen. An example of an argumentation rule in his approach is: if a person says $p \ \& \ q$, it is sufficient to refute $p \ \text{or} \ q$ in order to refute him, but if he says $p \ \vee \ q$, one then has to refute *both* p and q . Empirical studies do not start with propositions,

but with *utterances in concrete situations*. The functions of the utterances are normally complex, having relevant performative aspects, but careful analysis may result in “distilling” *p*’s and *q*’s appropriate for formal treatment.

A pronounced empirical approach such as the one I am advocating does not exclude theory construction. Botany is empirical, yet it contains, and also presupposes, theory construction. Debates, perhaps even more than flowers, inspire deep reflection!

Options in a Clarification and Assessment Game

One way of describing rules in use in a discussion (here between two persons, *A* and *B*) that are intended *to clarify and to assess* arguments in terms of options, is as follows. (*T* and *U* stand for utterances in the form of declarative sentences.)

(1) *A*: *T*.

(2) *B*: (2.a): Yes. (2.b): No.

(2.c): Please be more precise!

(2.d): Please be more understandable but within the framework of preciseness relations!

(2.e): Announce kind of claim. Three options: the sentence was meant

1. not entirely as a clarification assessment (but, for example, as a somewhat performative, persuasive, rhetorical, exclamatory, hortatory . . . remark); or
2. as a theory formulation; or as a factual, descriptive, observationally true claim; or as a correctness claim; or as a theoretical acceptability claim; or . . . ; or
3. as a postulational contribution; as an invitation to accept a statement for the sake of the discussion.

(3) *A*: (3.a) as a reaction to (2.a): T_1 (a tentatively more precise formulation, put forward by *A* in order to test whether there is real agreement of some kind or other).

(3.b) as a reaction to (2.b):

1. pro-argument "pro₁"; or
2. tentative reformulation: U , where $\text{Syn}(A, T, U)$ (that is, U is synonymous with T for A); or
3. tentative "precization": T_1 .

(3.c) as a reaction to (2.c): $T_1 \dots$

From this kind of scheme it is clear that there are many options at each stage of a discussion. Furthermore, the number of "correct" or constructible courses of discussion increases very rapidly with the number of stages. As early as stage (3), the number of possible discussion situations is perhaps of the same order as it would be in a game of checkers.

In the next section, I shall concentrate on the move "Please be more precise!" either as a move made by the receiver or as a move by the speaker who makes his or her formulation more precise in order to test (that is, confirm or disconfirm) an argument for agreement or disagreement.

Analysis of Agreement and Pseudoagreement

Let us consider the following discussion, which is the shortest possible specimen of a class of very common discussions, to be called discussions of type D_1 (with A_1 and A_2 used as values for the participant variables A and B):

(1) A_1 : The newspaper is thin today.

(2.a) A_2 : Yes. (2.b) A_2 : No.

(3) A_1 : I mean, the newspaper has few pages today.

(4.a) A_2 : I agree. I thought you meant that the newspaper contained little news.

(4.b) A_2 : I disagree: the newspaper does *not* have few pages. I thought you meant that the newspaper contained little news.

Let me introduce three abbreviations:

T_0 : The newspaper is thin today.

T_1 : The newspaper has few pages today.

T_2 : The newspaper contains little news today.

With “syn” standing for “is synonymous to” and $-T$ standing for the negation of T , the above discussion may be rendered as follows:

Discussion, type D_1 :

(1) A_1 : T_0

(2.a) A_2 : T_0

(2.b) A_2 : $-T_0$

(3) A_1 : T_0 syn T_1

(4.a) A_2 : T_1 , T_0 syn T_2

(4.b) A_2 : $-T_1$, T_0 syn T_2

A person A_1 sends the declarative sentence T_0 to another person, the receiver A_2 . A_2 sends back his utterance of agreement or disagreement with T_0 . Concerning the verbal usages of A_1 and A_2 , we know that for A_1 , T_0 is synonymous with T_1 but not with T_2 , and for A_2 , T_0 is synonymous with T_2 but not with T_1 . It is reasonable to assume that, for each of them, T_1 and T_2 are more precise than T_0 .

Figure 2 is to be read horizontally, starting at the top:

If A_1 takes T_1 to be true (which he, as the sender, does in any case), and A_2 takes T_1 and T_2 to be true, then there is verbal agreement at (2.a) and real agreement at (4.a). If A_2 takes T_1 to be true and T_2 to be false, then there is verbal disagreement at (2.b) and real agreement at (4.a). Furthermore, there is verbal pseudodisagreement at (2.b). If A_2 takes T_1 to be false and T_2 to be true, there is verbal agreement at (2.a) and real disagreement at (4.b). Furthermore, there is pseudoagreement at (2.a). If A_2 . . .

Suppose this type- D_1 discussion has ended at step (4.a). Conclusion: there is real agreement between A_1 and A_2 , *but only relative to step (4.a)*. Let us suppose the discussion starts again, A_1 repeating T_1 as a step (5) and A_2

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A_1	A_2		Agreement Relation:		
	T_1	T_2	verbal?	real?	pseudo?
t	t	t	a	a	
t	t	f	d	a	d
t	f	t	a	d	a
t	f	f	d	d	

Figure 2. Key: t = true; f = false; a = agreement; d = disagreement.

repeating T_1 as a step (6.a). After these moves, A_1 reveals a little more about what he means by T_1 , and the discussion takes on the same color as before:

- (7) $A_1: T_1 \text{ syn } T_{11}$
- (8.a) $A_2: T_{11}, T_1 \text{ syn } T_{12}$
- (8.b) $A_2: -T_{11}, T_1 \text{ syn } T_{12}$

If this second installment of the discussion ends at step (8.b), then it ends with real disagreement in relation to (8.b) and with pseudoagreement in relation to steps (2.a) and (4.a). Consider the following example:

- (7) A_1 : I mean, the newspaper *available here* today has few pages.
- (8.a) A_2 : I disagree. I thought you referred to the newspaper with today's *date*. (I got my copy in the city. It really has few pages.)

The diagrammatical representation (figure 3) is similar to the foregoing one.

Discussions of type D_1 may continue indefinitely. As a consequence of the steps taken, agreements and disagreements will be realized, as follows:

- At the end of step (4.a), we may conclude: real agreement between A_1 and A_2 about T_0 .
- At the end of step (8.b), we may conclude: real disagreement about T_0 ; pseudo-agreement in relation to steps (2.a) and (4.a).

A_1	A_2		Agreement Relation:		
	T_{11}	T_{12}	verbal?	real?	pseudo?
t	t	t	a	a	
t	t	f	d	a	d
t	f	t	a	d	a
t	f	f	d	d	

Figure 3. Key: t = true; f = false; a = agreement; d = disagreement.

- At the end of step (12.a), we may conclude: real agreement about T_0 ; pseudo-disagreement in relation to step (8.b).
- At the end of step (16.b), we may conclude: real disagreement about T_0 ; pseudo-agreement in relation to step (12.a).
- At the end of every step (4i.a), where $i=1,3,5, \dots$, we may conclude: real agreement about T_0 .
- At the end of every step (4j.b), where $j=2,4,6, \dots$, we may conclude: real disagreement about T_0 .

From the above, we conclude that either “real agreement” is to be understood as “real agreement in relation to step x in an argumentation,” or else real agreement is something unverifiable. The “relational real agreements” confirm a hypothesis about agreement; the “relational real disagreements” disconfirm a hypothesis about agreement. That is, they yield confirming or disconfirming *instances* in relation to the working hypothesis. Analogously, *pseudoagreement* and *pseudodisagreement* are relational terms, too.

Insofar as agreement is taken to be agreement about truth or falsity, we may conclude: the attribution of truth or falsity to something said in a discussion is in principle always ad hoc, preliminary, and tentative. If A_2 answers “true” at steps (4.a) and (12.a) in our example, this does not preclude his saying “false” at (8.b) and (16.b). A vaguer, more general conclusion is that verbal agreements and disagreements always remain essentially verbal. Agreement about *propositions* is never *reached* through argumentation but remains a more or less well confirmed hypothesis.

Degree of Definiteness of Intention (Discrimination Acuity) as a Factor in Argumentation

The simplest way in which the finite degree of the speaker's definiteness of intention influences patterns of argumentation (for example, with the D_1 pattern) runs as follows: At stage (2), participant B asks A whether by expression T_0 he means (the same as by expression) T_1 or (expression) T_2 . At stage (3), A answers that he has not made, or that he does not make, this distinction. B then stops the D_1 -type discussion at stage (4), because if T_1 were meant his answer would be yes, whereas if T_2 were meant it would be no. B may take the initiative in a new discussion by asking how A would justify not making the distinction.

In our example of a D_1 discussion, A_2 may at step (4) say, "I did not think of the distinction between being physically thin and being journalistically thin!" A_2 's *degree of discrimination* stops short of a distinction between T_1 and T_2 . A_2 may admit the relevance and validity of this distinction, and may take a stand on it. In that case, the discussion may continue.

In many cases the instigator of a discussion *must* have thought about a certain distinction, we would say. Consider the following start of a discussion (not belonging to the class D_1):

(1) *The General*: Our glorious attack on the enemy starts tomorrow at five o'clock.

(2) *The Major*: Herr General, do you mean five o'clock in the morning or five o'clock in the evening?

(3.a) *The General*: Alas, that distinction did not occur to me.

The general's answer is clearly relevant for the communication intended by him. In other cases, the relevance of a question can be disputed; in still other cases, a question is clearly irrelevant. Here is an example in which the relevance is disputable:

(3.b) *The General*: Of course at five in the morning.

(4.a) *The Major*: By "glorious," Herr General, do you mean . . . ?

(5) *The General*: Irrelevant! (And irreverent?)

Here is a case of clear irrelevance:

(4.b) *The Major*: Taking note of Einstein's rejection of absolute time, may I ask the general whether by "five o'clock" he means . . . ?

(5) *The General*: Irrelevant!

The Hermeneutical Spiral as a Factor in Argumentation

Suppose at step (2) *B* expresses disagreement with *A*, and that *A* then continues the debate, offering a first *pro-argument*. It sometimes happens that, in the light of that pro-argument, *B* changes his *interpretation* of the initial formulation, T_0 , and now accepts it. The pro-argument then has a *retroactive effect*. Generally, every move of the participants may have retroactive effects.

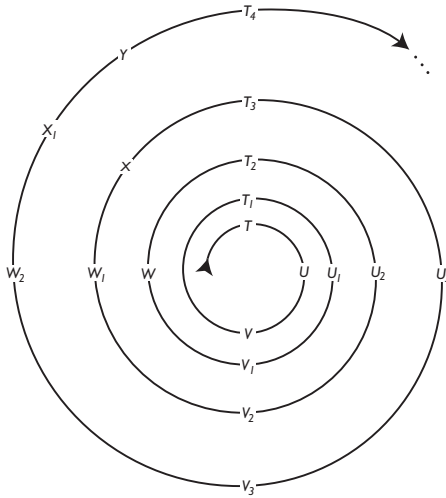


Figure 4.

In discussions of great and complex systems of thought, retroactive effects are indispensable and decisive. An all-embracing system of thought tends to color everything (including the very principles of argumentation). Starting from the sentence of the system that is offered as number 1 (for example, in a book), there is no way yet of explaining it adequately to the outsider. By going back to it again and again, however, as one reads more of the text, one usually supposes that a (noncontinuous) development of understanding will take place, which eventually will furnish a kind of understanding of the system as a whole (including sentence number 1). To illustrate that movement, a spiral serves us better than a circle.

Suppose a person starts reading the first three sentences of a text, namely T , U , and V . He interprets them to mean T_1 , U_1 , V_1 and continues, now reading W . This makes him change his first interpretations of T , U , and V into T_2 , U_2 , V_2 (see figure 4).

The new interpretations T_2 , U_2 , V_2 furnish a new context for W . Rereading this sentence, he now interprets it as synonymous with W_1 . The next sentence, X , may in turn occasion changes of interpretation, and so on.

In the case illustrated, the reader of the text always has to go all the way back to the beginning of the text after reading a new sentence. In such a case, a spiral movement is created.

I apply these principles to a particular philosophy in "An application of empirical argumentation analysis in Spinoza's *Ethics*" (in SWAN IX).

“You Assert This?” An Empirical Study of Weight Expressions

Introduction

“Man is descended from some lowly organised form.” This is one of Charles Darwin’s conclusions in his *Descent of Man* (1882: 788). The sentence is interesting from many points of view. He uses the vague term *lowly organised form*. For his moderate defenders it was possible to use broad interpretations; antagonists tended to narrow it down, and won over the media: Darwin was understood simply to say that we descended from apes. From the point of view of this article, the terms *show*, *attempt to show*, and *certainly* are interesting. “Show” may be plausibly interpreted as implying verification (of a hypothesis). Darwin uses a large diversity of weight expressions, some of them complex: “the fashions of savages are far more permanent than ours; and whenever their bodies are artificially modified, this is *necessarily the case*” (ibid., p. 583).

It is plausible that the term *necessarily* here is used in a wider sense than in contemporary philosophy of science, but exactly what did Darwin here *claim*?

His complex (“higher order”) weight expressions pose questions that need painstaking research. A second example: “[i]t is . . . *impossible*, as we have *seen*, to *maintain* that this *belief* [in God] is innate or instinctive in man” (ibid., p. 612; my italics for weight expressions). “Impossible to maintain” is clearly not meant or entirely meant to be a sociological or psychological hypothesis, nor one of formal logic presumably, but a kind of hypothesis of composite character—like so many other weight expressions.

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Against research projects with the aim of investigating complex weight expressions in Darwin's writings, one may object that he never had reason to mean anything very definite when he used such expressions, and that whatever he may have meant, it was nothing original: he just followed the customs of his research community. Even if his *definiteness of intention* was rather limited, there are sets of transintentional interpretations of contemporary interest, and even those within his reach are of interest when studying how assertions function in research. Just one more example from Darwin: "[i]t *cannot be supposed*, for instance, that male birds of paradise or peacocks should take such pains in erecting, spreading, and vibrating their beautiful plumes before the females for no purpose" (ibid., p. 616). Implied are, I think, some strong assumptions of purposefulness that, if accepted, make it more or less logically inconsistent with those assumptions to suppose the birds in question do not have a purpose for behaving as they do.

The pragmatic aspect is often clear, for example in Frederic B. Loomis's classical *Evolution of the Horse* (1926: 105): "between any two variants [of *Mesobippus bairdi*] there are so many transitional forms that it has *proved most convenient to regard* them all as one species." Feelings, but not mere feelings, are highly relevant: "[a]s none of the known species of *Parahippus* can be *considered* the immediate progenitor of . . . , we *feel* that the change took place on the plains in northern America" (ibid., pp. 124–25).

High-level textbooks of theoretical mechanics and similar fields contain a smaller diversity of weight expressions, but some are complex and important. "Dabei ist allerdings *die idealisierende Annahme* eingeführt, dass . . ." (Müller and Prange 1923: 62). The "idealizing" assumption introduced is the fundamental one of solids being adequately dealt with as mere material points, "points of mass." How does this assumption affect the weight of other assertions in the book?

If hard-pressed, scientists tend to introduce successively more complicated weight expressions.

Do We Know Much About the Use of Weight Expressions in Science?

Consider the following start of a communication between *A* and *B*:

A: The nucleus is the controlling center of cellular activity.

B: You *assert* this?

A: Yes.

B: So, you could also formulate it this way: "it is true that the nucleus is. . . ."

A: I could not for at least three reasons: First, I would not start with "it is true that" without something being contested or for other special reasons. Second, the assertion is in principle only a scientific hypothesis. To say it is true is to use too strong a word. Third, the formulation admits many different interpretations, a family of closely related assertions. Some members of the family I would class as fairly uncertain or even slightly erroneous. Other members I would say are beyond doubt correct. I would, if pressed, even say they are true. The situation is, in short, rather complicated.

The trend of *A*'s answers is toward greater complexity of assertions. His second answer consists of eight sentences, if we interpret "sentences" not in a grammatical sense, but as strings of words limited by full stops. Suppose the communication continued. *A*'s fifth answer might well consist of 100 sentences, all part of an adequate answer to *B*'s question "You *assert* this?"

The above communication shows that *B* is interested in what weight, in at least one sense of "weight," *A* attaches to his utterance about the nucleus. It turns out that *A* is clearly conscious of his own usage of certain terms, what I shall call his "weight expressions."

Using an old epistemological distinction, "knowledge by acquaintance" versus "knowledge by description," we may admit that *A* manifests more than usual knowledge by, or *as*, description, not just knowledge by, or as, acquaintance. *A* is able to articulate insights about his own use of expressions.

The investigation of weight expressions has the aim to increase our knowledge by description. We are well acquainted with the vocabulary of our mother tongue, but our knowledge on the level of science may be next to nil.

The short interaction between *A* and *B* exemplifies a variety of weight expressions. "It is true that . . ." is not a very common expression. In the context of the first four steps of the above communication, the expression "I *assert* so and so" may or even must be interpreted as a weight expression, depending on our definition. The same holds for ". . . only a scientific hypothesis." Without the "only" we get a somewhat heavier or stronger weight expression: "scientific hypothesis." Furthermore, the communication exemplifies instances of "fairly uncertain," "slightly erroneous," "beyond doubt correct," and the less strong "I would say are beyond doubt correct." The last expression, "I would, if pressed, say they are true," like the foregoing, belongs to the many complicated utterances expressing complex attitudes toward the status of assertions.

Comparing the use of "It is probable (that such and such)" with "I found (that such and such)," people are more sure that they know what they themselves mean when they use the latter expression, or at least they are more willing to enter into detailed explanation. In every case, however, there is a limitation of definiteness of intention in certain senses of that term. It is natural to admit that we do not mean anything very definite when we talk in a relaxed way in everyday life.

This brings up questions of interpretation, especially expressions like "I interpreted T_0 to mean T_i ," where T_0 is a sentence heard and T_i is a sentence within a group of sentences $T_1, T_2, \dots, T_i, \dots, T_n$ acknowledged to express interpretations of T_0 . Among the answers to questions like "When you heard T_0 did you interpret T_0 in the sense of T_i , or differently?" there is one kind of special interest, namely, answers like "I don't know." They indicate that these people simply do not find any basis for answering. They acknowledge T_i as a possible, even plausible, way of understanding T_0 but feel they don't know whether they actually understood T_0 that way. The "*nescio*-answers" ("I don't know" answers) remind us that when people listen and understand, for example, a part of a speech, there are no or very few "conscious" acts of interpretation. Avoiding the term *conscious* we may say there are few instances of the listener saying to himself " T_i is meant" or occurrences of rudimentary articulations of something to that effect.

Outside small expert groups, the kind of weight expression "(such and such) has been *refuted* (by so-and-so)" is used with a low definiteness of intention. Two groups of students get in touch with requirements of greater

definiteness: law students and students in (some) philosophy of science courses. In the latter, a theory is sometimes said to have been refuted if at least one observation is clearly inconsistent with what the theory predicts. That is, a sufficient condition of correct use of an expression of the kind "theory such and such is refuted" is either stipulated or formulated as a description of what is the common view within a scientific community. In other courses it is said that, strictly speaking, no theory is refuted, because the relevance of the observation depends on the correctness of an indefinite number of assertions expressing the observational conditions, for example, the purity of certain chemicals if the observation has to do with results of a chemical reaction.

The expression "strictly speaking" is of interest here because it is used by people who believe they *know* which usages (ways of speaking) are "strict" in some prescriptive sense. These people indicate different bases of their beliefs. Exactly which bases?

Whatever the case, an empirical investigation of the weight expression "(such and such) has been *refuted* (by so-and-so)" may take years of work by a collaborating group. It is likely that in the long run, the investigation would come to be regarded as less a study of a verbal expression than an investigation of the methodology of hard science or jurisprudence, or of substantial parts of sciences of every kind.

Knowledge as Calcified Research

This article is not meant to motivate colossal research projects but to stimulate awareness of unaddressed problems. Applied to education in colleges and in universities, and the process and dynamics of research, the aim of the article is to remind us that the distinctions true/false, known/unknown, probable/improbable, shown/not shown, refuted/not refuted are only a small fraction of expressions of significance found in attempts to apply the results of research in society. The term *result* is itself an important expression. It is often used almost synonymously with "what is *found* through research," a pervasive metaphor in the political discussions at Rio de Janeiro in June 1992. "What has science *found out* about the climate?" How is "finding" to be understood in research? We are back to the history, methodology, and philosophy of science, or rather, of scientific research. The search

itself is a restless, limitless endeavor with no fixed doctrines whatsoever, because doctrines imply texts, and texts imply interpretations. Scientific *knowledge* is perhaps a name for a calcified, maximum-entropy state of affairs. A section of a scientific encyclopedia without weight expressions is analogous to a clip of a movie.

The intricate *historical* development of a weight expression has been studied carefully in only one case: the expression "... is proved." The *quod erat demonstrandum* has, especially since the sixteenth century, been studied intensively. After Hilbert and Gödel, the development is beyond the scope of understanding of all except the specialists, but what we all can do is deepen our definiteness of intention when it is called for (and not bother others when it is not called for). The authoritative text of Euclid's *Elements* is extremely poor and uniform in its use of weight expression. Why?

How does the term *scientific knowledge* function relative to the hundreds of strong and weak, simple and very complex, weight expressions used by active researchers?

If it is known that gold is heavier than silver, then gold is heavier than silver. If it is known that p , then p . To say "It is known that p , but it may be false that p " is felt to be awkward. Today, however, it is common to say that all scientific knowledge is hypothetical. "Any part of scientific knowledge may be wrong, mistaken." If it is scientifically known that p , then p or not- p —a modest claim indeed! Of course, the claim is stronger, but just how strong? In fact, there is not one claim but hundreds: corresponding to the hundreds of weight expressions alive in active research along its long frontier. To say that all scientific knowledge is hypothetical has been adequate as an opening to a discussion in which neither the term *knowledge* nor the term *hypothetical* may have any important function. A manifold of expressions takes over.

Too many gifted young people are overwhelmed by the requirement of "knowing," especially in hard sciences education. It is difficult to change this, but more courses in "physics appreciation" will certainly help to increase motivation, to mention only one factor. The ideal appreciation courses appeal to the imagination, the adventurous, the process of *search*, not knowledge. Another factor is a shift to scenarios and inventions rather than discovery of new facts: the theories in modern hard science are primarily inventions, creations of speculative fantasy, and only touching observa-

tion at infinitely few, but decisive, points. Therefore, the weight expressions are only rarely those of knowledge, fact, probability, verification, or even falsification. If students could be invited to read texts more suggestive of the dynamics of living research, they would feel the relevance of the life of hard science to their own way of life.

The *pedagogical* importance of the study of weight expressions owes, therefore, to several factors. One is the lamentable poverty of weight expressions in contemporary textbooks and popularizations. The intricate process of simplification, condensation, and standardization neglects what is actually *claimed* by researchers, sentence by sentence. When complex and weak weight expressions are left out, the scientific enterprise as a vast human cultural enterprise is largely forgotten.

An Inventory of Weight Expressions in Science

In what follows I shall use data gathered in the 1950s as part of an unpublished study of weight expressions.

To secure comparable units of text from different scientific works, we calculated the number of "letter places" per page and also the number of pages necessary to obtain a standard unit of investigation, 120,000 letter places. As a letter place we counted the place of a single letter or an open space between two words or between two sentences.¹ Textual pictures, tables, and footnotes were not subjected to calculation, nor were quotations from other authors. A unit of 120,000 letter places in a text we called a "population." The number of pages per population in our collection of data ranged from about 40 to 120.

In all, every weight expression in 70 populations from 62 works was underlined. In order to compare scientific texts on a technical level with other kinds of texts, we chose some works that were articles and books of a different character: textbooks of science and popularizations. The works were numbered 1 to 62. The number combination 31,2 stands for population number 2 in work number 31. The underlining of weight expressions requires a fairly definite delimitation of such expression as opposed to others. The wording of the instruction on what to underline must be (1) interpreted in a similar way, and (2) applied in a similar way by different underliners. Our goal was to obtain more than 90 percent agreement or identity of un-

derlinings. A test confirmed that the instruction worked satisfactorily. There were, of course, discrepancies. In the case of population 31,2 the first investigator underlined 72 expressions and the second underlined 79. Moreover, the first underliner classed an occurrence of "appear" as a weight expression whereas the second did not, and the second classed as a weight expression an occurrence of "appears" that the first did not. The discrepancies were attributable to different interpretations of the *context of the occurrences*.

Why not formulate a fairly precise definition of the term *weight expression*? That would solve many questions. Roughly, this is the reason: it would regulate the collection of data in agreement with a *special preconceived concept* within a large field not yet charted.

Four populations concerned mathematics, two statistics, two mechanics, one astronomy, nine chemistry, eight geology, four paleontology, two zoology, seven biology, three physiology, five psychology, two psychiatry, two sociology, two economics, two science of law, eleven history, and four philosophy.

Thirty-six of the populations were classified as "technical" in the sense of not "mere" textbooks and not popular; twenty-eight were classed as textbooks, and six as popular. Sixty-two texts were written in the twentieth century and eight in the seventeenth, eighteenth, or nineteenth century.²

Forty-three were written in English, nineteen in German, and eight in Norwegian. From the point of view of methodology it would have been preferable to have only one language represented. The translatability of nearly all expressions is remarkable, however. It is difficult to find any use difference among, for example, "it is the case that," "es ist der Fall dass," and "det er tilfelle at."

The Frequency of Weight Expressions

The average frequency, all seventy populations taken together, is 20.3 weight expressions per 10,000 letter places. These expressions consist on the average of 2 words each. The average number of words per 10,000 letter places is about 1,600. This means that about 2.5 percent of the total number of words are weight expressions. That is about 40 words per 10,000 letter places, 40 out of 1,600 words. Thus, the weight expressions form a significant part of scientific texts.

Table 2. Most Frequently Used Weight Expressions.

English Expressions	German Expressions
1. show (that such and such)	1. ergeben (es ergibt sich dass . . .)
2. see	2. gelten, gültig
3. find	3. annehmen, Annahme
4. prove, proof	4. zeigt
5. fact	5. scheint, erscheint
6. assume, assumption	6. wahrscheinlich, Wahrscheinlichkeit
7. seem	7. beweisen, Beweis
8. probable, probably, probability	8. offenbar
9. know, knowledge	9. sehen
10. evident, evidently	10. möglich, Möglichkeit

Popularizations showed an average of 13.6 weight expressions per 10,000 letter places, textbooks 15.6, and (scientific) technical writings 25.0. This confirms a tentative hypothesis that there is a general decline in the use of weight expressions with distance from the live process of scientific research. Therefore, students reading textbooks do not get an intimate contact with how it feels and what it takes to do research and to assess the weight of what is asserted or announced.

Comparing authors, we find clear differences. Some authors tend to repeat the use of certain weight expressions and to use only a few different ones. Others use weight expressions infrequently but employ a relatively high number of different ones. The relation between the total number of weight expressions used and the number of different ones is found to be 4.44. The relation varies from 2.16 in population 55, a popular English work on history, to 10.08 in population 29, a German textbook on mathematics.

The meagerness of data does not warrant close statistical analysis. The investigation was planned as a pilot study, opening up a promising field.

In order to obtain a rough idea of relative frequency, we shall refer to ten populations, five English (populations 2, 3, 4, 5, and 6) and five German (populations 7, 8, 10, 22, and 27). In table 2 we have listed in order of frequency the ten most frequent weight expressions in the two main languages. The classification of "assumption" as a weight expression depends heavily on the context. Sometimes it is a near-synonym for "working hy-

pothesis." Sometimes the researcher is only interested in what logically follows, if such and such is used as a premise.

The two lists shown in table 2 are fairly similar, 1 = 4, 2 = 9, 3 = 1 (?), 4 = 7, 5 = ?, 6 = 3, 7 = 5, 8 = 6, 9 = ?, 10 = 8. In the German list we have *gelten* (to hold good) and *möglich* (possible), which have no near-synonyms in the English list.

Many well-known expressions are absent from the list: true, false, mistaken, (not) the case, falsified, verified, confirmed, certain, likely, corresponding with reality, really so.

Strong Versus Weak Claims

In population 30,2 we find the sentence "It seems clear that the nucleus is the controlling center in cell activity." We interpreted this to express a weaker—more moderate, less weighty—claim than would be expressed by "The nucleus is clearly the controlling center in cell activity." As still weaker we would class "It seems that the nucleus. . . ." One might introduce a measure of strength, let us say from -10 to $+10$, but the arbitrariness would be too great. Instead, we class the expressions into four broad, significant classes—very strong, strong, weak, very weak—and attach a number to each: 2, 1, -1 , -2 . Expressions that we class as neither strong nor weak, but somewhere in between, or expressions that are very difficult to judge in terms of strength, we leave out of our statistics—a kind of 0-class. It is to be expected that different investigators show fairly big differences in how they class the expressions, perhaps more than 10 percent differences. Context plays a large role, and so do personal terminological idiosyncrasies. An expression like "it seems clear that" may for one author be a stronger claim than for another—"it seems *clear* that" versus "it *seems* clear that." The one may habitually use "seems"; the other, rarely and with emphasis.

Gottlob Frege was careful with his use of weight expressions, but in a famous letter to Bertrand Russell we may safely assume that a generally rather weak expression hides a stronger intended message: "Your discovery of the contradiction caused me the greatest surprise and, I *would almost say*, consternation (*Entsetzung*), since it has shaken the basis on which I intended to build arithmetic." Frege *was entsetzt!* The weight expressions have a negative function: to admit uncertainty, to express qualifications, to shy away from crude,

simple assertion. Using the above scale we can therefore expect that the sum for each population is a number less than zero. Actually, the general average for all seventy populations is found to be -14 . The range is from -212 in population 18, a series of English articles on psychology, to $+190$ in population 5, a technical English work on statistics. It is tempting to say that the difference reveals the modest epistemological status of psychological research and the established high status of theoretical statistics. (An investigation of opinions among scientists on statistics *in practice* showed a remarkable degree of scepticism; this holds, for example, for the master statistician Trygve Haavelmo.) The data do not admit anything but conjectures. As could be expected, there are more weak and very weak expressions used in technical works than in textbooks (averages -29 and $+2$). Does this mean that consumers of research are more uncritical than producers?

Expressions Referring to Human Activity or Experience

A distinction of considerable interest is that between weight expressions referring to human relations and those that either do not invoke any such relations or do so only in an indirect or implied way. Calling something a fact or a truth is an example of the latter; calling something an assumption is "strictly speaking" talking about a human act, usually in relation to an opinion or theoretical premise that is accepted as tenable. Saying that something is proved refers only to a human action, but it is *implied* that if a theorem is proved, it is true or valid. "Valid" in some contexts and some interpretations refers to human society; in other cases, it is as faintly suggestive of human relations or affairs as "true." It is notable, however, that most people strongly associate the term *true* with the very human activity of testing. "That it is shown" and closely similar homocentric expressions are the most frequent kind of answer to the question "What is the common characteristic of all that is true?" among people who are not professional philosophers (Naess 1938). Professionals may react with a depreciating remark that there are infinitely many truths that are not "shown" and never will be shown. But nonphilosophers seem to *presume* that "it" in "it is true" and similar expressions refers to something that has already been considered by human beings. The abstract use of the term is often not accepted. People find the thought queer that there is or even exists at any given moment an

infinity of unknown truths about unknown things. A book *could* be written about each individual drop of rain in the Amazon rain forests, thousands of potential truths and errors about each drop—but people are not impressed!

Sometimes, not often, nonprofessionals are able to *articulate* fairly pragmatic views about truth. In short, the expressions “it is true” and “it is shown” have many functions in common. Studied from one perspective, every function can be defined in terms of human relations. Each occurrence of each of the weight expressions may be said to have a function within a larger whole, a *Verhaltensweise*, only in part verbal.³ From a different perspective, we may, and should, define them as without explicit relation to human beings. I have called such weight expressions *homofugal*—escaping from the human. The others I call *homopetal*—human-seeking.

The attempt to classify expressions consistently as homopetal or homofugal leads to complex studies of context. The weight expressions “evident,” “evidently,” and “evidence” function in most contexts as homopetals. Human beings experience evidence when considering certain assertions. In a phenomenological context, however, we find descriptions of how human beings may be confronted with the evident as such much as they are confronted with a wall. Edmund Husserl in his monumental *Logische Untersuchungen*⁴ talks about a confrontation with the inescapable evidence of the law of contradiction, not as an experience of evidence but as something inherent in the law. The evidence is not on the side of a subject experiencing evidence. Nothing human is implied when the subject is confronted with the simple *that it is so*, the *Sachverhalt* itself. When confronted with a tiger we should be aware that we are not confronted with an experience (*Erlebnis*) of a tiger. The evidence of the principle of contradiction (properly understood) is a kind of real tiger in this respect. In short, practical application of the proposed classification of homopetals is “relational” in the sense of being dependent on philosophical premises being accepted. In certain early Husserlian contexts, *evident* and *Evidenz* are homofugal weight expressions, and perhaps also in many other contexts.

Among the introductory textbooks investigated, I wish to mention Ludwig Kiepert's *Grundriss der Integral-Rechnung* (1920). It belongs to a different mathematical-pedagogical culture than that of today. There is no sense of cleverness and hurry in its pages, no impression of life in the fast lane. The “progress,” step-by-step, is so slow, the elementary examples so

many and so *ausführlich* (exhaustive), that it can be read in the same way we read an entertaining book on history or gastronomy. Space is ample—why not use 932 pages? The paper is rough and ecologically defensible; Germany in 1920 could not afford luxurious, chemically complicated paper.

The weight expressions in this text are few and simple: something is *found* or *proved*, something is *valid*. There are weight expressions, but the atmosphere is one of confidence and equanimity. The context makes it clear that the seemingly bold expression “for the sake of simplicity the assumption is made that . . .” (Kiepert 1920: 620) is not a weight expression.

The texts written in past centuries were few: Robert Boyle’s *The Sceptical Chymist* (1661); Malthus, *On the Principles of Population* (1798); Thomas Henry Huxley, *Man’s Place in Nature* (1863); selections from Spinoza; Adam Smith, *The Wealth of Nations* (1776); Charles Darwin, *Origin of Species* (1859) and *The Descent of Man* (1871). There is no marked difference in the use of weight expressions correlating with time in our data, but I suspect that with more data, significant differences would be found in the literature of physics (more reference to human activity—for example, assumptions).

An Ontological Reflection

A short conversation:

A: Your theory developed in your recent book is admirable. All through the book you make an assumption, let us call it *P*, for short. Don’t you assume *P*?

B: Yes, I do.

A: In the book you use the weight expressions “probably,” “evidently,” “scarcely correct,” and others. If the assumption is false, would you have to change those expressions all through your text?

B: Of course, practically all of them. My weight expressions would, on the whole, be drastically changed, but certainly they would not be more complex. The text would have been far more complicated.

In natural science, untestable or untested assumptions play an increasing role. This makes it less adequate, sometimes even squarely misleading,

to use the simple, familiar homopetal expressions accepted at the level of activity in the laboratories. At the observational level, the enormity of technical equipment overshadows the old dominion of just seeing that such and such is the case.

When a set of assertions A is used as a set of premises for B , B for C , C for D , and only D is on the observational level, the homofugal weight expressions are misleading, except to characterize derivations within formalisms. There are infinitely many sets of premises from which B follows, and infinitely many from which C follows. Because of the theoretical levels of A , B , C , the case is different from the derivation in "All fish are warm-blooded, all whales are fish, therefore all whales are warm-blooded." The set of premises here is close to the observational level. In the hard sciences, there are long chains of derivation within the nonobservational sphere.

The long derivation chains lead away from the Einsteinian ontological view of physical reality toward the conventionalism of Henri Poincaré and the "conventionalist" school. A more appropriate name would be "assumptionism." Niels Bohr, in his famous Moscow discussions, showed the way: quantum physics may be regarded as a set of abstract structural assumptions, freely chosen, from which we can derive conclusions tested on the everyday level of setting up experiments and observing light signals.

There are heuristical limits to the choice of possible physical worlds, but no theory is more "probable" than any other. "From probabilism to possibilism?"⁵

Back to the short conversation at the head of this section. When ten more or less observationally untestable assumptions are made along a chain of derivations, negating one or more of them results in 1,023 alternatives, none of them contrary to observation. Research does not consist in trying to find out which theory is true, most probable, nearest to what is the case. Weight expressions still have a crucial role, but it tends to be a complex one in terms of human activity and experience. Ontology need not turn toward subjectivism, but toward appreciating the world as experienced in everyday life, listening to the physicists who are engaged in work with models of the (very) abstract *structure* of reality.

II

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Husserl on the Apodictic Evidence of Ideal Laws

It is now more than fifty years since the publication of Husserl's *Logische Untersuchungen*. His argumentations are formulated with such care, thoroughness, and vigor, and many of his conclusions are so well substantiated by later research, that the book is justly regarded as one of the philosophy classics of the twentieth century.

There is a quality in the *Logische Untersuchungen* that is not often commented on, but that deserves unreserved praise: the fairness and unbiasedness, the *Sachlichkeit* of his exposition of the doctrines criticized, especially those of psychologism. No charge is directed against imaginary adversaries, but against amply quoted assertions in definite texts. Considering the passion and consequence with which Husserl hammers out his views, this fairness is most admirable and makes his contribution singularly adapted to philosophical analysis.

In this article, some reflections are made about the character of the phenomenological approach. They do not conclude in any criticism of the main theses of *Logische Untersuchungen*, but interpret them in the light of a philosophy of philosophy that is diametrically opposite to that of Husserl.

Husserl continues the tradition of those philosophers who try to bring certain fundamental disciplines *in den sicheren Gang einer Wissenschaft* by starting from apodictically certain, definitely established, intuitively grasped truths. The present article represents the tradition of those who believe that the status of science will, if at all, be reached by continuation and expansion of that kind of research that has provided us with matter-of-fact knowledge, tentative hypotheses, and laws with different degrees of high probability.

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Husserl attacks “psychologism” and “extreme empiricism.” The first term is defined in section 17 of the first volume of *Logische Untersuchungen* as a kind of theory about the relation of psychology to formal logic: “Die wesentlichen theoretischen Fundamente (der Logik) liegen in der Psychologie,—Die Logik verhält sich zur Psychologie wie irgendein Zweig der chemischen Technologie zur Chemie, wie die Feldmesskunst zur Geometrie u. dgl.”¹ “In theoretischer Beziehung verhält sich also die Logik zur Psychologie wie der Teil zum Ganzen. Ihr Hauptziel ist es zumal, Sätze der Form herzustellen: Gerade so und nicht anders müssen sich—allgemein oder unter bestimmt charakterisierten Umständen—die intellektuellen Betätigungen formen, anordnen und zusammenschließen, damit die resultierenden Urteile den Character der Evidenz, der Erkenntnis im prägnanten Sinne des Wortes erlangen.”² [*Editor’s Note:* See notes, pages 351–52, for English translations.]

The imposing development of symbolic logic as an independent science in recent decades and also its close connection with mathematics makes it difficult for us to understand how eminent thinkers such as St. Mill, Sigwart, and Erdmann could embrace the plainly untenable doctrines of psychologism. The development has no striking parallel in causal sciences having human reasoning in logic and mathematics as their subject matter. The belief of St. Mill, Sigwart, Erdmann, Lipps, and Cornelius that such sciences under the leadership of the new psychology should be able to explain genetically and causally the development of the formal sciences was unwarranted or at least premature. The traditions of empiricism suffered from the defeat, and it is characteristic that many philosophers of our day who strongly emphasize their empirical and “antimetaphysical” leanings (Russell, Carnap, and others) are severe in their criticism of the dominant trends in empirical theory of knowledge of the nineteenth century.

The mistake of psychologism is only a consequence of a much deeper and more common mistake, according to Husserl. “Die psychologistischen Logiker verkennen die grundwesentlichen und ewig unüberbrückbaren Unterschiede zwischen Idealgesetz und Realgesetz, zwischen normierender Regelung und kausaler Regelung, zwischen logischer und realer Notwendigkeit, zwischen logischem Grund und Realgrund.”³

The psychologists seemed to believe that the *principium contradictionis* could be validated by an inference with psychological or, more generally,

factual premises. Many premises were offered. We cannot at the same time both believe and not believe in the same proposition. If we deny the laws of thought, we reaffirm them in our very denial. The principle of contradiction evokes in us complete evidence.

Because of and on the basis of these or other *Tatsachen* concerning human beings and their thinking, the *principium contradictionis* is valid—according to psychologism. It would be possible to reformulate pure logic as a factual science, a kind of anthropological discipline.

Husserl maintains that a “reformulation” along these lines annihilates formal logic, and there is scarcely anybody who would disagree with him today on that point. From the invalidity of $p \& q$. $\&$. $\sim(p \& q)$ in the propositional calculus, one could not after the “reformulation” rigorously infer any other proposition, let us say $p \& q$. $\&$. $p \vee q$. From the inability to think the former does not “follow” the inability to think the latter. There may be constant confirmation of both instances of inability, and this justifies an inductive inference, but no proof of the propositional calculus could be formulated on that basis.

On the other hand—and this is often forgotten in the laudable effort to stamp out every trace of psychologism—the program of a science of science remains. A science of science must include research dealing with human scientific activity and its products—including pure logic, pure mathematics, and pure theory of knowledge in the sense of Husserl. Among the objects studied we find the calculus of propositions in various modifications and all the proofs, axioms, rules, and metamathematical devices developed in recent times. It is part of the task of empirical philosophy to explore the possibilities of a *kausale Tatsachewissenschaft*, of establishing *reale Notwendigkeiten* and *Realgründe*. On the basis of such research it is in principle legitimate to expect *predictions* of experiences of apodictic evidence and the establishment of *die Logik als normative und praktische Disziplin* (Husserl 1913: I: 1). Moreover, all of this must be done without committing empirical philosophy to any form of psychologism.

Husserl does not reject the possibility of such sciences of the real—he only emphasizes that their laws can neither prove nor disprove any strict law, for example, of the kind we require in order to develop formal sciences.

In the realm of the ideal laws in the sense of Husserl, there is necessity and complete exactness of content. Insofar as sentences are intended to ex-

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press ideal laws and their interconnections, their *claims* must be to express necessary connections and complete exactness of content.

A researcher in pure mathematics may feel uncertain whether the proofs in his latest publication are all valid; he may even sincerely believe that the probability is less than 0.99 that all conclusions follow in complete strictness from the premises. This, however, will not induce him to change the claims from that of a strict proof to that of a reasonable argumentation. He stand or falls with his *proofs*.

We do not know which claims of living mathematicians and logicians are warranted and which are not. The only way of substantiating any claim is to go through the proofs repeatedly and increase their completeness and explicitness. If we, as part of this activity, make assumptions such as that oneself or the author of a text (actually) follows his definitions, or that he (actually) has certain intentions, these assumptions do not belong to the proofs. They cannot add to or diminish the validity of conclusions. According to Husserl, the validity is either apodictic or not of the kind required in an exact science. Any matter-of-fact assumption about definitions being followed introduces, it seems to me, something foreign to apodictic reasoning.

So much for pure and factual sciences in general. Let us then ask for instances satisfying the requirements of being parts of sciences. It is comparatively easy to give instances satisfying the modest requirement of factual sciences, but, if we are right in our interpretation of Husserl, formidable difficulties confront those who would establish parts of a pure science beyond doubt.

Husserl argues that we have apodictical evidence of pure or ideal laws, such as *modus barbara*, but the assertion that he or any other has this evidence does not belong to pure logic or any other pure or formal science. It belongs to a factual science concerning the relation of logicians (and others) to pure sciences. It is not necessary to conceive this to be psychology. It is enough for our argumentation that it is a science of facts or, more generally, a science about the real rather than the ideal.

Any assertion that a sentence interpreted as intended by a logician (or by myself, or by any other person) expresses an ideal law (and therefore something completely exact and of apodictic validity) is a sentence in principle belonging to the *Tatsachbewissenschaften*. It does not belong to pure

science (*reine Wissenschaftslehre, reine Erkenntnistheorie*) but to a part of science concerned with certain kinds of objects and asserting things about those objects that may be true or false, depending on our shifting abilities of thinking and observing.

Factually existing sentences in treatises of pure logic may—as Husserl says—have the claim to express ideal laws, but from a claim does not follow its own satisfaction. Which sentences actually express ideal laws is a question admitting different answers, contradicting each other. The products of logicians are human products, and whatever their aspirations, the adequateness of their relations to the entities of the realm of the ideal is not apodictically evident. Those relations must be established inductively.

If it is objected that certain strict laws such as the *principium contradictionis* cannot be doubted because their very denial reaffirms the principle, the argumentation is already within the realm of *Tatsachewissenschaften*: something is asserted about the possibility or impossibility of certain acts of thinking, doubting, and so on. The arguments against psychologism are applicable to such an attempt to validate that ideal law to which Husserl gives the name *principium contradictionis*.

The objection is also ill-conceived, because no argument in the foregoing paragraphs has been directed against the apodictic validity of the ideal laws. The subject matters under consideration are the products of existing mathematicians and logicians in their relation to ideal laws. Does any such product express an ideal law?

In the foregoing we have mentioned how Husserl conceives the difference between the real and the ideal sciences. We shall now consider what he offers as a criterion by which we can know beyond doubt that we have reached knowledge in the strict sense of the word, *Wissen im strengsten Sinne*. The criterion is *evidence*. Husserl elucidated what he means by *Evidenz* by calling it (defining it?) “unmittelbares Innewerden der Wahrheit selbst” and “die lichtvolle Gewissheit, dass ist, was wir anerkannt, oder nicht ist, was wir verworfen haben.”⁴ Evidence is, of course, to be distinguished from one’s merely being completely convinced about something. The difference is itself evident in certain special situations, namely, when we concentrate on ideal relations such as those expressed by the pure science.

Let us quote a passage in which Husserl describes how we as human beings can meet and grasp ideal existences and reach apodictic certainty:

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Indem wir nun einen Erkenntnisakt vollziehen oder, wie ich es mit Vorliebe ausdrücke, in ihm leben, sind wir, "mit dem Gegenständlichen beschäftigt," das er, eben in erkennender Weise, meint und setzt; und ist es Erkenntnis im strengsten Sinne, d.h. urteilen wir mit Evidenz, so ist das Gegenständliche originär *gegeben*. Der Sachverhalt steht uns jetzt nicht bloss vermeintlich, sondern wirklich vor Augen und in ihm der Gegenstand selbst, als das, was er ist, d.h. genau so und nicht anders, als wie er in dieser Erkenntnis gemeint ist: als Träger dieser Eigenschaften als Glied dieser Relationen u. dgl.⁵

This passage, with its many striking metaphors, is as good as any in calling attention to what sometimes happens when we assert such a truth as *modus barbara* or "dass die drei Höhen eines Dreieckes sich in einem Punkte schneiden" (Husserl 1913: 2:44). I doubt that anybody could in truth say that he has never experienced "Erkenntnis im strengsten Sinne." If he is inclined toward scepticism, he may get rid of that experience relating to a particular assertion, but in extricating himself from what he considers an illusion of absolute or apodictic knowledge, he runs the risk of having a new experience of the kind he just subjected to scrutiny.

On the other hand, there is nothing in Husserl's description that eliminates the possibility of mistaking knowledge of less than the strictest kind for a piece of knowledge of the strictest kind. The history of pure mathematics and rejected doctoral theses both illustrate this point. There is nothing in the description of how we arrive at and judge apodictic knowledge that can help people who do not *really* have a *Sachverhalt wirklich vor Augen* but are fully convinced that they do.

From this I conclude that it is not possible to describe the intimate meeting of human beings with the *Sachverhalt* in such a way that it can be effectively described for the benefit of those who doubt that they have the power to distinguish those meetings from others.

Husserl seems to rely not so much on the description of the crucial meeting as on the exemplifications. He points to assertions that are apt to cause such meetings if grasped in their exact meaning. Of such examples he offers us many: "allgemein gilt für beliebige Klassentermini A, B, C, dass, wenn alle A B und alle B C sind, auch alle A C sind"; "Die drei Höhen eines Dreieckes schneiden sich in einem Punkte"; "Zwei kontradiktorische Sätze sind nicht beide wahr"; and others referred to by names such as *der Bernoullische Schluss con n auf n+1*. A list of these examples, together with a

list of examples of assertions that should not cause the crucial happening—let us say, “One cannot at the same time believe and not believe in the same proposition,” and others—might furnish a kind of test similar to certain color tests.

The appeal to examples that actualize the meeting as a happening is based on the assumption that they are definitively established and that their exact meaning can be communicated to the reader. If the reader does not grasp the exact meaning, but believes he does, and therefore also believes he experiences the crucial meeting, he may be misled permanently. He will try to fix his experience in his memory and use it as a standard. He will use it in judging future assertions, thus perverting whatever ability he once had to discern knowledge of the strictest kind from that of the less strict.

Even if he grasps the exact meaning and gets the *Sachverhalt wirklich vor Augen*, this will happen as a matter of fact, as “eine Tatsache, d. i. ein zeitlich Bestimmtes” (Husserl 1913: 1:76). That it happens under certain conditions would constitute *eine reale Notwendigkeit*, not as a strict law in the sense of Husserl. It is not contradictory to suppose that such a meeting never has been granted to any human being, not even to Husserl himself. I am convinced that the supposition is false, but I may be mistaken in my convictions.

Shall we then, as many of the empirically minded would do, dismiss pure phenomenology and the search for apodictic knowledge, for pure intuitive, ideal knowledge?

Yes and no. To be dismissed is the program of a science of *Wissenschaftslehre* in the space of a system of apodictic knowledge. As soon as a science is said to be science of or about something, there is a radical risk of error; it partakes in the imperfections of the sciences of the real.

Not to be dismissed is the invitation of pure phenomenology to explore the ideal, the infinite domain of forms and structures, including the domain of contradictions. This exploration has considerable autotelic value. Husserl was inspired by the *allgemeine Mannigfaltigkeitslehre*, and it certainly is well suited as a stepping-stone toward free engagement in contemplation of mere possibilities of forms and structures, independent of any purpose to create a *Lehre* or science. The field of exploration will include *the domain of the not real, not pretended real, and not contradictory*.

The term *not contradictory* in the last sentence is preferred to such terms as *evident* or *apodictic*, because of the difficulties of obtaining a concept of evidence unconcerned with the real, and because if we obtain it, it is scarcely discernible from a concept of consistency or noncontradiction. Instead of *ideal*, the term *not real* is used, in order to avoid too many associations with certain conceptions of Platonic idealism. The term *real* is used synonymously with “what is as a matter of fact,” using “a matter of fact” for *eine Tatsache, d. i. ein zeitlich Bestimmtes*.

The domain to be explored is, in part, the same, as far as I can see, as the realm of the ideal as conceived by Husserl. It will include pure logic and pure theory of knowledge insofar as they strictly belong to that realm. All truths, those discovered and those undiscovered, belong to the domain. Truth, in the sense of Husserl, “ist über alle Zeitlichkeit erhoben” (Husserl 1913: 1:77). Further, all falsehoods in the sense of *kontradiktorisches Gegenteil einer Wahrheit* will belong to it. They also are *über alle Zeitlichkeit erhoben*.

Let us return to Husserl as the architect of a system.

Husserl conceives his programmatically pure theory of knowledge and his logic as two systems of truths that rigidly exclude other systems as rightful candidates for the same titles. There is, according to Husserl, if I am not mistaken, *one* pure logic, the one apodictically evident. It is obtained directly from the fountain of strict knowledge, the meetings with the *Sachverhalt* in pure intuition. The same exclusiveness holds for his *pure* theory of knowledge. As a system of assertions expressed in human language, it may show variation owing to homonymy. “Die Bedeutungen” as ideal entities would, however, be identical. A law about the real, according to Husserl, is “eine von unzähligen theoretischen Möglichkeiten einer gewissen, obschon sachlich abgegrenzten Sphäre.” A pure logical law is “die eine und alleinige Wahrheit, die jede andersartige Möglichkeit ausschliesst.”⁶

Now, considering the plurality of ways in which formal logic can be built up as a system, and considering how, because of implicit definitions, the *ideale Bedeutungen* of each formula or proposition are dependent on the system as a totality, we have no strong reason to expect any development toward one particular system as *the* system. The question of whether the different systems of signs are really one, considering their *ideale Bedeutungen*, seems incapable of clear formulation. A third body of propositions and

rules would be needed in order to compare systems of *ideale Bedeutungen*. There is not, however, any definite such body that might be singled out as the “correct” one and used as a basis for the comparison. Consequently, there is no reason to expect one definite result of the comparison.

The situation is similar with regard to the postulate of one definite system of pure theory of knowledge. In the domain of the real, different, mutually inconsistent theories may be equally well confirmed. In the domain of the real, a multiplicity of structures is possible, but they are not necessarily inconsistent or even comparable with one another.

Rigid exclusion of reference to the empirically real does not tend to narrow down the range of different systems.

A system of pure knowledge is as such completely indifferent toward any trait whatsoever of human knowledge, in the sense that at no single place in the system is anything implied concerning the question of whether there exists human knowledge and, if it exists, of what kind it is. No reference is made to mathematics and symbolics as actually developed by mathematicians and logicians. All existent systems as actual systems may contain formidable mistakes or exclusively pure truths. The systems are irrelevant insofar as they are real, that is, insofar as they exist as products of an activity—for example, intentions—of human beings.

Husserl’s criticism of psychologism and his emphasis on the *fundamental* difference between real and ideal are taken for granted in this article. So also is his emphasis on evidence of the apodictic variety as a requirement in pure mathematics and logic. The only difference is that we apply the rigid distinction between real and ideal to any historical system erected, for example, by Husserl, and given the attribute “pure.” Those systems are situated on the human side of the *ewig unüberbrückbares* chasm between real and ideal. They are actually intended systems, products of intentional and ideational activity carried out by Husserl and others in the twentieth century. They will be real, and their properties will have some properties that by definition do not belong to the realm of the ideal. They may or may not represent systems of truth. Human thinking sometimes seems to be, sometimes seems not to be adequate to the tasks in hand. There is no one to tell us when it is adequate and when it is not. The judges are members of our own species. We may actually have a great deal of apodictic knowledge, but it cannot be known (in the strict sense of Husserl) that we have.

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The conception of pure phenomenology as exploration in the ideal does not exclude its use in research in factual science of science, just as G. F. B. Riemann's fantastic exploration of structures with certain analogies to physical geometry, but totally unconcerned with that geometry as a science of the real, has not excluded its usefulness in factual science. On the contrary, this conception of pure phenomenology makes such use more understandable because it is subsumable under a kind of use exemplified since the dawn of geometry and celestial mechanics as exact sciences.

Can Knowledge Be Reached?

My thesis in this paper is that there is no amount or quality of evidence such that if that amount or quality is reached, then truth is reached. If, therefore, a proposition must be true in order to constitute knowledge, knowledge is never reached. If certain standards of evidence are satisfied I have the right to *say* "I know," and the right does not depend on how one answers the question whether it is right *what* I say.

The conclusion of this paper will be that knowledge cannot be reached. Or rather, that in an important sense of 'knowledge' and of 'reaching', knowledge is not something that we can reach. We may already possess it—and I do consider both myself and others to know quite a lot—but I cannot see that I am able to offer a philosophically satisfactory account of how we could possibly have come nearer to it until a definite event happened: we reached it.

Formulated and interpreted with care, this conclusion is, I think, both nontrivial and true. It is restricted, though, to those concepts of knowledge that require that in order to reach knowledge, we must reach truth, and restricted also to those concepts of truth that require that in order to be true, what we say must be so.¹

There is an old and distinguished family of definitions or criteria of knowledge with a requirement that for something to be known, it must be true, and for something to be true, it must be the case. The truth requirement may be thus formulated: something cannot both be known to be so and yet not be so.

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The expressions “to be so,” “to be the case,” and “to be true” are very near in meaning and function in the context relevant to our problem. If we substitute “to be true” for “to be so” in our formulation of the truth requirement, we arrive at a rather modest claim, closely related to the truth requirement: something cannot both be known to be true and yet not be true. I mention this in order to stress that giving up the truth requirement of knowledge would lead to paradoxical, or at least very queer, results.

Within this family of definitions, or criteria, or sets of necessary and sufficient conditions of knowledge, there is a subfamily with three requirements: one can only be said to *know* that p if (1) one is sure that p ; (2) one has adequate grounds for being sure that p ; and (3) p is true.

The requirements may be transformed into a questionnaire of three questions. Some such questionnaire cannot easily be avoided if the definitions or criteria are to be used in concrete cases by people who want to make sure that they themselves or others *know* that such and such is the case, and not just believe it, assume it, and so on.

Suppose I take it for a fact that Mr. Nixon’s opinions concerning the Chinese offshore islands are about the same as President Kennedy’s. Suppose also that in Mr. Nixon’s behavior I find indications that he himself either *knows* this to be the case, or has *made a guess* to that effect, or for some reason or other has chosen to perform some of his actions on *the assumption* that this is the case, and so on. If, then, I want to answer the question of whether Mr. Nixon knows, or makes a guess, or assumes that such and such is the case, I may decide to make use of the following kind of questionnaire:

1. Is he sure that p ?
2. Does he have adequate grounds for being sure that p ?
3. Is p true?

In this questionnaire the third question is different from the conjunction of (1) and (2).

Now, however, we come to the problem children of our distinguished family, the criteria that *I* know that p :

2. “I know that p ”—“I am sure that p ; I have adequate grounds for being sure that p ; p is true.”

In asking myself, or being asked by others, whether I know p to be the case, what am I to do when confronted with the third requirement, that p be true? If I am trying to decide whether I know or don't know p to be the case, what, then, is the relation between the first two requirements and the third one? Is it really a new question?

For the sake of an easy survey I write out both the third-person questionnaire, where I answer questions about a third person, and the first-person questionnaire, where I answer questions about myself:

Question 1: Is he sure that p ?

Question 2: Does he have adequate grounds for being sure that p ?

Question 3: Is p true?

Question 1: Am I sure that p ?

Question 2: Do I have adequate grounds for being sure that p ?

Question 3: Is p true?

There is some sort of incongruency between the two questionnaires. In deciding whether *he* knows, it is *I* who answer the question whether p is true, and, of course, I do it on the basis of my own beliefs and grounds—to which there is no reference in the questionnaire. The third-person questionnaire is that of a bystander or observer, or it is that of an editor of an encyclopedia of knowledge, such as, for example, Otto Neurath, whose views about knowledge, according to Bertrand Russell, were characteristic of an editor who is not also a contributor.

Faced with question 3 of the first-person questionnaire (“Is p true?”), I shall once more ask myself, Do I have adequate grounds for being sure that p ?—or I shall frantically search for something more than evidence, say a guarantee of truth. (Sometimes I firmly believe that I have a guarantee, but, speaking generally, I adhere to the view that there can be no guarantee for the truth of a statement whose negation is not some sort of contradiction.)

If I have already answered yes to the question about adequate grounds, the question “Is p true?” will either be interpreted as a repetition of the question about adequate grounds, or it will be interpreted as unanswerable

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or awkward, like the question “Irrespective of adequate grounds and my own conviction—*is p* true?”

Nonphilosophers, and perhaps philosophers too, employ concepts of truth in their everyday life that are completely independent of requirements about being sure, and completely independent of requirements about adequate grounds or the right to be sure. I have called such concepts, or conceptions, of truth homofugal and contrasted them with what I have called homopetal conceptions. In the homofugal conceptions there is no reference to human conditions or human activities.

Not without a struggle with my own inclinations, I have long accepted a homofugal conception of truth as inevitable. Given a homofugal interpretation, however, the first-person questionnaire is a bad questionnaire, since the third question cannot then be answered. That is, it cannot be answered on the basis of rational considerations.

If, on the other hand, we accept a homopetal conception of truth, and interpret the third question accordingly, the question will be redundant, since the answer to it will follow from the answer to question 1 or 2.

Thus it seems that for both conceptions of truth, the questionnaire is ill conceived.

Before I continue, I ought perhaps to mention how I interpret “adequate grounds” and “the right to be sure.” According to one interpretation, grounds are adequate only if they guarantee truth, and nothing less than such a guarantee gives one the right to be sure. This is not how I use these expressions in this paper. According to another interpretation, which *is* how I use these expressions, grounds are adequate if definite, but variable, standards of evidence are satisfied, and when they are satisfied, one has also the right to be sure.

I shall now put forth a theory or an explanation, or at least a few comments, as to *why* the first-person questionnaire is felt to be so awkward. Some people have found my explanation highly speculative and metaphysical, whereas others have found it simple and commonsensical.

In saying “*p* is true” I do not intend, or very often do not intend, to express anything that has to do with *my* relation to *p*. I just tell that *it is so*, that what *p* says *is the case*. I enjoy a homofugal attitude or bent of mind. Or, if I am a staunch ontologist, I shall say that I am absorbed in the world of objects. At least, these are the words that seem to fit in retrospect.

I am, however, never safe in my enjoyment of truth. A shift may occur at any moment that makes me see, or search for, *my* relation to truth, or *my* relation to *p*. Of what kind is my access to truth, that I can utter, as a rational being and with a sober voice, "*p* is true"? I want to get a picture of myself grasping truth and holding it in my hands.

Whether or not such reflection results in reassuring myself that *p* is true, the natural, and adequate, expressions of my reflection are homopetal, not homofugal. I may feel surer than ever that Francis Bacon did not write *Hamlet*; that is, I am more positive than ever in my answer to question 1; or more than ever do I consider my grounds as adequate and my methodology unassailable—and in saying so, I repeat my answer to question 2. I shall not make use of the expression "*p* is true" or any other homofugal expression, however, because my attention is egocentric. Perhaps, instead of answering question 3, I shall say, "I am more convinced than ever that *p* is true," but from that it does not follow that I am willing to say simply "*p* is true."

There is, in some sense, no way back from the evidence attitude to the attitude of simply saying what is. On the other hand, the simple attitude of asserting truth does not have to lead to questions of evidence.

So far, I have discussed the awkwardness of first asking for evidence and then—immediately afterward—for truth. Maybe a simple change, asking for truth first and then for evidence, will save us from trouble. Professor Chisholm, in his book on perception, places the truth requirement as the third one, but Professor Ayer, in *The Problem of Knowledge*, places the truth requirement as the first one:

I conclude then that the necessary and sufficient conditions for knowing that something is the case are first that what one is said to know be true, secondly that one be sure of it, and thirdly that one should have the right to be sure.

(Ayer 1962: 35)

Reformulated, this piece of text may well be taken as a member of the family of definitions under consideration. A corresponding questionnaire in the first person would run as follows:

Question 1: Is what I say I know true?

Question 2: Am I sure of what I say I know?

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Question 3: Do I have the right to be sure of what I say I know?

For the present purpose, these questions may be reformulated as follows:

Question 1: Is p true?

Question 2: Am I sure that p ?

Question 3: Do I have the right to be sure that p ?

As an oral questionnaire this one is likely to be more successful than the previous first-person questionnaires, because here the subject is asked about p before he is asked about his relation to p .

Suppose I answer yes to all three questions but then get worried about the first question and change my answer from a simple "Yes, it is" to "I am sure, and I have the right to be sure that p is true." Such a change would seem to me irrational; that is, I cannot see that I could give it a rational justification. Any such justification would amount to a rational reconstruction of the transition from truth attitude to evidence attitude.

It seems that saying, of a given p , "It is so," "It is the case," "It is true," or simply asserting p , is an act for which there can be no adequate rational reconstruction. Saying "It is so," etc., does not entail, and is not entailed by, any statement about adequacy of grounds or firmness of conviction. Therefore, accumulation of evidence makes me say "There are now more grounds than ever for taking p to be true" or "I am now more justified than ever in my conviction that p is true," rather than repeat "It is so." As long as my attention is focused on the increasing evidence, or as long as I am not absorbed in immediate perception or intuition, my verdict is adequately expressed in homopetal terms only.

The transition from truth to evidence, or vice versa, might perhaps be understood in terms of levels. If I enjoy truth while absorbed in the amassing of evidence, my use of the expression "It is true" refers to second-order statements: "That the weight of my evidence is crushing, is as simple a truth as can be." "My conviction is total. That is the simple truth." "You earned your right to be sure that the gun was unloaded, that is true; but, God bless your soul, you were mistaken in saying you knew."

If reflections enter the scene while I am enjoying truths of the second

level, the homofugal terms will disappear from that level, and if they reappear, it will be at the third level; and so on.

At any level, a philosopher may point to something I assert, enjoying truth, and correctly comment that I believe I have knowledge. If, however, the philosopher is inclined to argue in favor of scepticism, he may point instead to the transition from enjoying truth to collecting evidence and correctly comment that no volume of evidence will regain for me my first enjoyment of truth.

One position that might be called sceptical—although I do not think it ought to be called that without qualifications—can be thus formulated: no evidence of a proposition is such that if it is available then the proposition is true.

If to reach truth, or to grasp truth, is to reach or grasp a guarantee that it is not falsity, we can say: truth or falsity cannot be reached by increasing evidence.

And if “knowledge” is defined in such a way that “to know that p ” implies “ p is true,” then we get another set of formulations characterizing the position: no evidence that p is so strong that if a person has that evidence, he knows that p . In other words: knowledge cannot be reached by increasing evidence.²

We might continue: if to understand or to see or remember that p is the case implies that p is true, then understanding or seeing or remembering that p cannot be brought about by increasing the evidence.

After all the talk about our not being able to reach such and such, we may feel better if we contemplate for a moment a case of our actually being able to reach something. I choose the case of reaching for an apple. In reaching out for it, my hand is brought continuously nearer to the apple. The act is brought to its happy end as I grasp it, and my grasping the apple is an event that stands out as something very different from my hand coming close to it. This difference is clear even if the “apple” reached subsequently is found to be of wood and therefore not an apple at all.

If I am too eager, or too drunk, I may overreach myself and grasp somewhere beyond the apple. There is nothing of all this in our groping for knowledge. We can perhaps estimate, or even measure, an increase in evidence, but not an approximation to knowledge. The event of grasping is not forthcoming, and nothing corresponds to reaching beyond. One can

even measure the distance of the hand from the apple. At a certain point, point zero, the hand reaches the apple. One can also specify an increase in evidence and perhaps find a scale for measuring this, but one cannot specify the distance from truth and the reaching of truth. One cannot fix a point zero in terms of evidence.

I have used the expression "truth attitude" a couple of times, meaning the attitude, or state of mind, of simply enjoying truths and asserting them once in a while, in contrast to the attitude, or state of mind, of collecting evidence. Now, it seems that I can *say* "A is now enjoying truth" only about others. There is something queer about the statement "I am now enjoying truth," since it seems to presuppose reflection inconsistent with the very attitude it expresses. I say that I am at a level I cannot possibly be at the moment I say it, or think it. My friend may say to me, "You are now enjoying truth at level zero." If I answer, "Yes, I am," he can say, "No, you are not; you are enjoying it at level one." Meekly I admit it is as he says, only to be told that I am now at level two; and so forth.

This conversation need not worry us, however. It only reflects the fact that the truth attitude is linked to the act of asserting and does not disappear when reflection begins. It continues, but at level $n + 1$.

That knowledge cannot be reached is of little importance if it owes to the circumstance that we already have it. If we already have it, however, how are we to account for our strivings to increase evidence? Our situation seems to resemble the lot of the human race according to a certain doctrine of grace: good actions do not qualify for salvation, but they should be undertaken, and with salvation in view.

After all, our epistemological situation is not so strange. We strive to increase evidence because we think that we have often been mistaken, and most often when the evidence has been meager.

The successive editions of an encyclopedia of statements satisfying certain standards of evidence may rationally be expected to show fewer corrections the higher the standards. What would be the difference between an encyclopedia claiming knowledge and an encyclopedia claiming evidence only? It seems to me that there would be none, except in the subtitle and in the accounts of how the present edition differs from the foregoing. In the encyclopedia of knowledge there will be more acknowledgments of mistakes.

It is sometimes said that the sceptic insists on standards of evidence

that are impossible to reach. If this is characteristic of all forms of scepticism, then the view I advocate is not a form of scepticism. The requirement of truth is independent of the requirement of evidence. I do not quarrel with the standards of evidence; they have, perhaps, as a result of the prestige of the natural sciences, been placed too high in many fields of inquiry.

If, however, we do not make impossible standards of evidence part of our definition of scepticism—which, of course, we ought not to do—then the view I advocate is, I think, a form of scepticism, since it asserts the unattainability of knowledge. Whether it is a trivial form is a question we might cleave in two: one psychological and one logical. To the psychological question I can only answer that, to me, it is not a trivial form: I cannot but feel sorry and deceived, having imagined that in our search, and in particular in our research, there is a guarantee that we shall reach truth, and therefore knowledge. I can still *imagine* that the conditions of human existence were such that in our strivings we would sometimes reach knowledge and, of course, know that we had reached it, but I cannot imagine the conditions themselves.

Perhaps the *meaningfulness* I attach to my form of scepticism cannot be given a rational expression, with propositional content and logical consequences. If it cannot, then the answer to the logical question is not only that my form of scepticism is trivial, but that it is logically nonexistent. I think, however, that it can be given a rational expression. Even if I find it impossible to describe the conditions I imagine possible, and so must be content with a set of negations, like “Knowledge cannot be reached by increasing evidence,” and a set of rules limiting the applicability of such a maxim (that it must not include itself, etc.), such maxims are themselves meaningful propositions with consequences that can be derived by the usual rules of inference.

Pyrrhonism Revisited

The Occasional and the Essential Seeker

Investigators are likely to find what they seek or to reject discoverability, asserting incomprehensibility, or to persist investigating. This is perhaps why also, in regard to what is sought in philosophy, some have claimed to have found truth, others have asserted that it is impossible, and still others go on inquiring. Those who are called Dogmatics believe they have found it, thus Aristotle, Epicurus, the Stoics, and some others. The incomprehensivity was argued by Clitomachus, Carneades, and other Academics; but the sceptics keep on searching.¹

(Sextus Empiricus)

Some of my fellow beings are researchers or, simply, searchers. When asked what they are and what they are doing, they honestly speak about what they are trying to find but have not found. When asked about what they implicitly seem already to presuppose having found, they eagerly try to answer my question straightforwardly and with assurance. They try also to describe *exactly* or in *exact* outline or abstract form what they know for certain that they are honestly trying to find (what they “are” looking for), but they fail in this or they tend to think they fail, or they at least discuss the aspect of possible failure in complete seriousness, using the technique of *pro et contra dicere*. It is as if their findings, even as regards their own intentions, are essentially, and not only pro tempore, conceived as tentative, ad hoc, or

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as hypothetical findings good only as starting points for more systematic and better-focused search. If I ask for their exact intentions, they might throw up their arms, saying, “Ah, you are a phenomenologist! I wish I had time to do research on my intentions!”

This seemingly evasive behavior is frustrating to me when trying to grasp exactly *where they stand*: I wish to find out what they tacitly, but steadily, assume to be definitively true when asking their questions—in short, their presuppositions. For, of course, they *stand*, but just where? Or perhaps “standing somewhere” is just one possibility among several? *Must* we always stand?

A Dialogue Exemplifying a Pyrrhonist Who Does Not Admit His Pyrrhonism

“Surely you presuppose that this stuff here will not explode,” I said to my contemporary Boyle, the “sceptical chemist,” in his laboratory.

“I am completely convinced,” he answered. “Don’t be afraid, there is nothing I hold more certain than this. There will be no explosion.”

“So, in this experiment you *presuppose* that the stuff will not explode?”

“Of course,” he answered.

“But then you also presuppose the truth of a variety of chemical propositions—all those needed to derive the nonexplosiveness.”

“Do not make me laugh,” he answered. “I am, as you ought to know, contributing to the downfall of several of those “truths.” They have too long been taken for granted. Any of them may tumble and fall, at any time.”

I was completely taken aback. “You are completely convinced that an explosion will not take place as that stuff is mixed, but you nevertheless see no decisive arguments for the truth of any of the premises!”

“No decisive argument for the *truth*—but more than enough for my *trust*, my confidence, insofar as it rests on premises!”

“So you only have probabilities!”

“Probabilities? What are they? Perhaps only a pseudoscientific way of reporting about past regularities.”

He was still smiling, unaware of the serious attack on his character that I now found inevitable. “Robert,” I said, “not a single time in any of our

discussions have you found *decisive* arguments for or against the truth of any proposition. You are a Pyrrhonist or zetetic sceptic! A *seeker!*”

My friend’s face darkened. “What nonsense. In research matters I have not found instances of decisive verification or falsification, but there are innumerable truths I *might* believe in. Pyrrhonism as described by Sextus Empiricus is dead. Short, conclusive refutations abound.”

“Forgive me if my memory fails me, but you seem always to have regard for human fallibility—including your own—stressing the difference between firm convictions and truth, between life and philosophy.”

“I firmly believe that this is *my laboratory*.”

“Is it *true* that it is yours?”

“I have absolutely no reason to doubt it.”

“From *that* you infer the truth?”

“Of course not. Truth does not depend on *my* reasons, or anybody else’s. Why should I make that inference? What need is there for infallibility?”

“Could you not admit that, if pressed, you switch from truth-claims to claims that you are convinced, that you do not have reasons or spare time to doubt, that you do not see why you should be in error in the present case, and so on? Pyrrhonism does not oppose conviction if conviction is defined as an implicit attitude of trust.”

“Anyhow, Pyrrhonism is not *my philosophy*. If I have never found decisive arguments for or against the *truth* of a proposition, this fact is only of biographical interest. From a diary of such failures no philosophy can be inferred.”

“Perhaps not, but could the failures *prevent* you from having a philosophy?”

“Perhaps you trust your philosophy, but do not affirm its truth?”²

Here I shall leave my imaginary debate with a sceptical friend. It exemplifies a frequent kind of debate with the not very numerous people whom I would class as “Pyrrhonic in their life and philosophy” but who resent and resist this label. This resistance I find laudable (“why labels?”), but perhaps the resentment is only a reflection of the low quality of descriptions of Pyrrhonism in textbooks. The arguments of the resisters, if carried far enough in long discussions, sometimes only strengthen my belief that I have found Pyrrhonists in the sense of seekers—zetetics. *There are consistent Pyrrhonists*. Looking back, I would tentatively class myself as one between

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about 1952 and 1962. Now I find it difficult to decide what I am, or to rediscover the question.

The Pyrrhonist May Be Strongly Attracted to Certain (Dogmatic) Philosophies

The arguments so far published against Pyrrhonism as a philosophy are weak. My motivation in writing this article is simple: there are Pyrrhonists, and they had better come out into the open. The refutations are rather conventional, and for the most part do not reach Pyrrhonism as described by Sextus Empiricus. In no instance are they decisive. Furthermore, being a Pyrrhonist does not exclude having strong philosophical affiliations of other kinds. In antiquity, Pyrrhonists were close to Heraclitus. Pyrrhonists are “seekers,” and in philosophy this implies prolonged working, however tentatively, within definite conceptual frames.

In this short article, I shall introduce some definitions and postulates of Pyrrhonism for the sake of argument:

1. Pyrrhonic philosophy, maximally condensed: decisive arguments are worth looking for, but there seems to be no decisive argument pro or contra the truth of any proposition!
2. A philosophy does not need to contain any truth-claim.
3. True means “that it is so.”
4. I only know that p if “ p ” is true, that is, if it *is* such that p . “I know that p , but p may be false” is not an acceptable position; the claim to know excludes the admission of the *possibility* of failure.³

Some of these sentences admit rather different interpretations. Somewhat different systems result from the selection of different definite sets of interpretations.

“No Decisive Arguments,” the Core of Pyrrhonism, Is an Exclamation, Not a Proposition

Sentence (1), expressing the core of Pyrrhonic philosophy, has the form of a pronouncement, not an assertion. In this, Pyrrhonism may resemble the

philosophy of Socrates, Kierkegaard, and the early Wittgenstein and differ from that of Spinoza or any other philosopher who takes a set of propositions with a truth-claim adequately and basically to express his philosophy. In this respect, Pyrrhonic philosophy, together with certain forms of Buddhist and Western philosophies, is to be classified as nonpropositional.

In adherence to the terminology of Sextus Empiricus, the term *pronouncement* is used when characterizing “sceptical utterances.” The term *exclamations* also might be used.⁴ They signify primarily the Pyrrhonist’s state of mind when confronting the dogmatic in debate.⁵ Secondly, they signify a basic existential attitude toward conceptual thinking. It is an attitude that cannot adequately be expressed by a set of propositions with truth-claim,⁶ but this does not imply that the Pyrrhonists cannot find each other and communicate. Everyday use of language does only marginally *require* pure conceptual thinking, and those engaged in conceptual thinking may have a variety of attitudes toward their own activity. In the long run, the attitudes interfere with the activity, transforming it into something it was not before. This takes place in the maturing sceptic, according to Sextus.

The sceptical exclamations, in Sextus’s terminology, are utterances indicative of something quasi-permanent, a disposition acquired through prolonged development. At this point Pyrrhonic biographies are relevant: one can begin to understand the historical background of the Pyrrhonist’s existential attitude. To the biographies belong the seeking and not finding, the frustrated primary need for a total view or at least a life philosophy with evidently true premises. Then comes the peace of mind in spite of not finding linked, characteristically, to a continuing search. The peace is already there, but human beings (like rats and some other mammals) seem also to engage in seeking as an autotelic activity.

As a classification unit in philosophy, Pyrrhonism is an ideal-typical construction that includes systematized attitudes toward every position in logic, methodology, ontology, epistemology, and other branches of philosophy; and one of ad hoc *epoché* as regards truth, reflecting a more or less complicated *pro et contra* argumentation, depending upon the current beliefs of dogmatists.

Superficial critics have charged Sextus Empiricus with repetitiousness and unnecessary argumentation, such as against *p* when *p* implies *q*, although he has already argued against *q*. Clearly, though, Sextus does not adhere to any definite organon of inference and implication, and, in princi-

ple, he has to visit every corner of every dogmatic philosophy. He cannot eliminate any of them with generalities as a Dogmatic sceptic or "Academician" might do. Moreover, just as clearly, a systematic Pyrrhonic exposition contains arguments in favor of each dogmatic philosophy. To every dogmatic con-argument, at least one Pyrrhonic pro-argument will correspond. Only at a distance has Pyrrhonism a negativist coloration.

According to the Pyrrhonist, adequate expositions of arguments do not add up to a decision of "true" or a decision of "false." However, because new arguments appear from time to time among dogmatists as well as among Pyrrhonic seekers, and because memory is fallible, no exposition can be classified as "authorized."

The exposition of argumentations on all philosophical subjects *and* the pronouncement of a general lack of decisive arguments *and*, perhaps, the pronouncement of the "sceptical way" (*agogé*) as one that leads to happiness, characterize Pyrrhonism. I say "perhaps" because one might wish to take the latter pronouncement as part of an inducement to learn about Pyrrhonism rather than as part of it. Sextus tends to the latter view in his famous genetic definition.

If we exclude Pyrrhonism as a philosophy, we shall have to exclude a long list of philosophies that traditionally are conceived to be such, and that fail only to satisfy the arbitrary postulate that a philosophy must contain at least one proposition claimed to be definitely and definitively true.

Even if we exclude Pyrrhonism as a philosophy, however, that does not imply that the Pyrrhonist is not a philosopher. A philosopher may be always "on the way" (emergent, *geworfen*) and may therefore transcend any classification. The Pyrrhonist is always on the way when working out and testing positions, looking for one that will satisfy the criteria of truth, or criteria of these criteria, or questions of still higher metalevels. The way in which he is "on the way" characterizes him just as deeply and consistently as Kantianism may characterize a nonsceptical personality.

Pyrrhonists Incline Toward Absolutistic Concepts of Truth, but Not Toward Absolutistic Requirements of Grounds for Action

From the point of view of ordinary language, it may be asked whether the Pyrrhonist does not impose *pointless* requirements of decisiveness. Does he

really have any idea of what he requires? Could he specify kinds of evidence that, if at hand, would show the truth of a proposition? If the requirements he poses are never realized, why pose them anyway?

The answer to this seems to be that there are different kinds of decisiveness. If I have a choice between *A* and *B*, I may *decide* to choose *A* on grounds different from those of believing in certain truths. The Pyrrhonist may be a rapid chooser, known for his trusting and benevolent attitude, but he *does* have ideas about truth that are such that no one is *guaranteed* to find it even after a long, laborious search or series of deep intuitions. The idea of truth is important to him, and he does not give it up easily. He does not say, “Well, I did not find a single argument decisive all last year, so why not just take at least 5 percent probability to be decisive this year?” Nor does he predict with certainty that the requirements will *never* be realized. Nor does he pretend that his idea of truth amounts to a definite concept of truth.⁷

One crucial point is this: he finds arguments *not good enough* so far. Charged with the contention that he poses extravagant requirements, he neither denies nor admits the charge but listens to the arguments for the contention. They have so far been vaguely circular: the requirements “must” somehow be too severe because there are hardly any arguments that satisfy them. If one eats five cakes, however, and finds that *all* taste bad, this does not make the decision “bad” pointless. Even if one cannot define clearly what is lacking in flavor, it makes sense to refuse to eat them and to wait for cake number 6—as long as one is not overly hungry. If number 6 tastes bad but one eats it, one has lowered the requirements not of goodness but of acceptance. The sceptic feels that he might accept an argument as pragmatically conclusive, deciding to act upon it, but not necessarily as decisive for *truth*.

Does the Pyrrhonist really retain an absolutistic concept of truth that is artificially separated from concepts of validity, evidence, verification, reasonableness, and tenability?

There are certain reasons to suppose that this is the case. According to Sextus Empiricus, Pyrrhonism does not exclude trust and confidence. Is this not, then, to believe in truths, at least in an unsophisticated way?

To believe strongly and consistently that such and such, to be confident and trust that such and such, seems somehow to be consistent, accord-

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ing to Pyrrhonism, with an attitude of *epoché* toward the truth of such and such.

The exclamation “There are no decisive arguments for or against the truth of any proposition!” refers also to propositions of the kind “A is more probable than non-A.” Otherwise it would be probabilism, not Pyrrhonism. The attitude of trust and confidence cannot therefore be the result of attributing a higher probability to A than to non-A, or vice versa.

One would expect that lack of decisive arguments for or against truth would diminish decisive action and increase mistrust, lack of confidence, vacillation, and doubt. According to Pyrrhonism, this is not necessary; and I think it *is* a removal of the notion of truth from certain other notions that makes decisiveness in action compatible with *isosthenia*.

First, “x is true” is taken in Pyrrhonism to be synonymous with “it is the case that x”—an ontological notion in principle separated from any process of verification or falsification. Second, the claim “to know that x” is emphatically identified with a certain kind of claim of incorrigibility: “I know that x, but possibly x is false” and “it is known that x, but possibly it is not the case that x” are rejected. “x is possibly false, therefore I do not know that x” is accepted. The Pyrrhonist trusts that the claim “x is true” is made with consciousness of its implied postulate of incorrigibility.⁸

This *awareness* of incorrigibility separates Pyrrhonic use (and absence of use) of the term *true* from that of everyday life. It makes it understandable that terms with explicit reference to belief attitudes are preferred: “I believe that x is true,” “I believe that x is the case,” “I feel confident that x,” “I trust that x.”

Even the following expressions might well be used: “I trust that x is true,” “I am confident that x is true,” “I am convinced that x is true.” These expressions would be used *angelikos*, expressive of one’s mind. Thus, one would not blindly accept inferences of these kinds:

Premise: I am confident that x is true.

Conclusion: x is true.

Premise: I am convinced that x is the case.

Conclusion: x is the case.

The Pyrrhonist Is Open in Debates About His Own Presuppositions

According to Aristotle, true statements are statements that say about that which is the case (*esti*) that it is the case, and false statements are those that say about that which is not the case that it is the case. If it is the case that *p*, it *cannot* also be the case that not-*p*.

Suppose a person who is considered a Pyrrhonist is entangled in a discussion on the notion of truth and ends up adhering to a definitely absolutist, nonpragmatic, nonvoluntaristic concept of truth such as that introduced by Aristotle. His stand may then be expressed by propositions with truth-claim, and he would presumably accept as decisive certain pro-arguments for the truth of propositions—for example, “What follows is an adequate definition of truth. . . .”

However, such a development from the Pyrrhonic to the dogmatic posture is most surprising, considering the confusing controversies about truth among dogmatists. What a blind will to believe must be required for someone to settle down with any *definitive* conclusions in this foggy field!

In the mid-1930s there was a strong belief that Alfred Tarski⁹ had given an adequate definition of truth and solved an old problem, but subsequent discussion has left the matter in the air. Exactly *what* does Tarski solve? No clear answer has been given. His definition is said to be adequate, but it is admitted that one requirement of adequacy is some sort of agreement with ordinary use. There is, however, no agreement as to how one decides which use is ordinary. Even if the Pyrrhonist must be expected to interest himself vividly in the possibility that he somehow presupposes a nonpragmatic, absolutist notion of truth, his very openness to various approaches in contemporary discussion has so far frustrated his efforts to find decisive arguments.

In general, the Pyrrhonist today, perhaps more than at the time of Sextus Empiricus, will stress an argument against dogmatists who say that the very attitudes and the questions involved in ordinary debate *presuppose* the acceptance of certain propositions *as true* and therefore presuppose at least one decisive argument. The trend of increased belief in transcendental philosophy has made the maxim “There *must* be fundamental presuppositions!” more influential. When concrete instances are offered, however,

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they seem to depend on specific approaches in the philosophy of language and epistemology that are controversial, since they lack decisive empirical and intuitive support. At best, they are research programs. Therefore, I do not see how the Pyrrhonist could easily be converted into a dogmatist by prolonged discussions of epistemological presuppositions. Quite the contrary: discussions of such presuppositions tend to promote scepticism.

Furthermore, it is a long road from the discovery and clarification of a presupposition to its acceptance in the form of a true proposition. The form of rule, postulate, norm, or the like is more likely to be adequate. The Pyrrhonist, though, is still without truth-claims.

A Whole Doctrine or Philosophy Is Postulational if There Is at Least One Postulate at Its Foundation

In general, if the verification of a body of beliefs presupposes the acceptance of at least one rule or postulate among a group of conflicting ones, the whole body of propositions corresponding to the beliefs acquires postulational or regulative status. At best, our conclusion will be of the form “The propositions are true if the postulate or rule is accepted.” From this alone, “The propositions are true” does not follow.

No Proposition Is Neutral Toward a System: Is Grass Really Green?

We now arrive at the crucial point of this article: the relevance of systems to Pyrrhonism. Among professional philosophers today there are of course many attitudes toward philosophical systems. My own point of view (stated elsewhere) is highly positive, because I consider the autonomy of the sciences and that of so-called common sense to be an illusion. I understand a full systematic philosophy to be a synthesis of a logic, a methodology, an ontology, an epistemology, a philosophy of history, an axiology, and (normative) ethics. To *publish* in all these fields is of course a hazardous undertaking, but I take it to be normal among philosophers to have or *seek* such a synthesis. A philosophy in this sense interacts with one’s way of seeing and experiencing life, the universe, and oneself.

The distinction between “in itself” and “in something else” (*in se, in*

alio) is fundamental in Spinoza's system.¹⁰ Substance, cause, freedom, wisdom, joy, passion, goodness, perfection, slavery, democracy—all are conceived in terms of distinction. It colors the perception of everything and therefore affects the meaning of any proposition in the system. A follower of Spinoza is therefore more easily exposed to scepticism: it is enough to doubt the meaningfulness of the fundamental distinction. Belief in systems favors the emergence of scepticism.

Let us for a moment return to the opening quotation from Sextus Empiricus. Sceptics and Dogmatists are there defined *only* in relation to "what is sought in philosophy." If questions of science or common sense were independent of philosophical questions, therefore, Pyrrhonism would be a partial scepticism, on a par with religious or historical scepticism. The idea of systems in which every question is placed in a conceptual framework, and of the explicitness of the fundamental assumptions and postulates that are therefore required, enlarges partial scepticism into total scepticism.

I do not see that *any proposition whatsoever* can be completely neutral toward differences in systems, and this makes a genuine seeker of a system normally indecisive with regard to the truth-value of any proposition.

Exceptions are platitudes such as "grass is green"—expressive, perhaps, of the kind of dumbness, sluggishness, or conventionality of perception of which painters and other artists try more or less in vain to cure us. If taken seriously as propositions, such formulas become nonneutral toward conceptual frameworks and therefore toward differences in philosophical systems.

Sextus's stock example is not "grass is green" but "honey is sweet." It is his contention, as I understand him, that efforts to conceptualize this utterance soon meet the formidable question of whether the sweetness is in the honey or not.¹¹ The problem area of secondary and tertiary qualities is relevant, and here evidence is scarce and meaning obscure.

When a person affirms that he is a logical empiricist, a liberal, and an admirer of Beckett, he does not mean to say that in his mind there is every second a recognizable manifestation of logical empiricism, liberalism, and admiration of Beckett. Most people would agree to this. On the other hand, if somebody tentatively affirms that he might be a philosophic sceptic, there tends to be an immediate outcry: insincere! pointless! inconsistent!, or the requirement is laid down that he must then doubt *everything at*

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once—not assume, presume, trust, or believe anything even for a split second. (See: “Now you are just eating fish. But if, as you say, you are an admirer of Beckett’s, *turn on immediately* and stop doing anything else!”) What is characteristic of a Pyrrhonist, however, is a disposition, a structure of traits that manifests itself in the long run, not a split-second reaction. This colors, for example, his assumptions; these acquire the character of posits, not assertions with truth-claim. To assess a truth-claim that involves a whole system, the Pyrrhonist must let himself sink deeply into it. This requires time and an openness that is inconsistent with a continuous flow of doubt, vacillation, and counterargumentation running through his mind. One may hear a dogmatist say, “He is supposed to be a sceptic, but he has been arguing enthusiastically in favor of Heraclitus all year!” It is of course suspicious to act like this for a whole year. The long time it takes to manifest a sceptical pattern of thought makes it always relevant to ask, as colleagues of sceptics have done since Pyrrho, Is he not really a Heraclitean, or an empiricist, or . . . ? However, trying to balance argument *pro et con* every minute is bad research heuristic. Nothing decisive can be inferred from temporary imbalances.

Tentative Conclusions

1. Pyrrhonism as a personal philosophy is neither inconsistent nor psychologically impossible.
2. A Pyrrhonist undertaking a systematic inquiry assumes, presupposes, and uses postulates, but he does not assume the truth of any proposition. He posits, takes for granted until further notice, and acts upon “natural, spontaneous beliefs,” but he does not affirm, or feel inclined to affirm, any truths. Among his spontaneous beliefs are some on the metalevel concerning notions of truth.
3. He does not “resist” what seems obvious at the moment, but he finds it difficult to decide for or against as soon as an utterance is made more precise by means of a set of conceptual distinctions.
4. One may speak of a Pyrrhonic attitude in a psychological sense, but it is not to be identified with doubt. There is also a searching *Einstellung*, way of being, of existential import, which as a personal philosophy tran-

scends the mere psychological, just as does Kantianism or any other philosophy that a person "has."

5. A philosophy, insofar as it tends toward a total view, colors everything. Therefore, indecision with regard to its truth is an indecision as to truth-value in general. One kind of genesis of a Pyrrhonist may therefore be that of a seeker who, after having delved deeply into two different possibilities of total views, finds arguments for or against in part indecisive, in part irrelevant.

Trust and Confidence in the Absence of Strict Knowledge and Truth: An Answer to Nicholas Rescher's Critical Reappraisal of Scepticism

Distinction Between the Academic and the Pyrrhonic Sceptic

What is scepticism and what are the main arguments for and against it? As happens so often, we have to admit that it depends in part on what is meant by the word. The history of various usages of the word, and closely corresponding words in some other languages, goes back more than 2,000 years. An argument against "scepticism" in one sense may be irrelevant, or even a pro-argument, in relation to "scepticism" in another.

I do not believe that this is a trivial point. Even today, one cannot say that the scepticism discussion is a net discussion—*net* used as in "net income," that is, when misunderstandings owing to differences of terminology are cleared away. The Greek verb *sképtomai* (to look about, look carefully at, view, examine) was used when the expression "medical scepticism" was coined—the medical tradition in which Hippocrates is the greatest name—stressing empirical observation and abstention from the application of philosophical and mythological theories. Make experience and application of carefully tested procedures your guide! Never *rely* on a theory!

A distinction worked out in detail by the greatest author on scepticism, Sextus Empiricus, plays a crucial role in what follows in this article. He distinguished between the view that, strictly speaking, knowledge and truth cannot be found, and the view that, strictly speaking, so far no piece of knowledge or truth has been found, but some people are still looking for it. Philosophers claiming to have found truth (or at least one truth) he calls Academic and those who think they have not found any, but still are on the

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lookout, he calls Pyrrhonic after the philosopher Pyrrho. Clearly, Sextus's usage is rather different from what people today generally associate with the word *sceptic*.

In the vernacular a sceptic tends to be one who is prone to turn down proposals to act or to value something positively. He is a doubter, embracing doubt as a general attitude, or in a special case. To appreciate scepticism as a cluster of traditions in the history of philosophy, one must have some interest in claims and concepts of truth and knowledge.

A Story About the Problems of Using the Terms *Truth and Knowledge*

We prepare for a voyage across water, but of course without knowledge about the weather we shall face. At best, we have the assurances of a meteorologist that our prospects are excellent. Experts have tested our little boat, but they make it clear that they take no responsibility. They tell us that every scientific and technical detail has been carefully considered—all is in order, but anything can happen anyhow. We have remote possibilities. For example, the day we set sail, the Atlantic could disappear. The game has had an effect that we should have anticipated: we do not use the term *knowledge* any longer. We have a lot of confidence in our undertaking, but remote possibilities of error are regarded as sufficient reason not to use the knowledge and truth terminology. For example, we don't like to say "Yes, I know that . . . , but I may be wrong" or "Sure, we know that . . . , but it may be a mistake."

If something is known, it *is* the case, it *is* true, it *is* so. It is nonsense to make any further inquiry. If we know we are not yet on the water but on land, it is true that we are on land; it is the case that we are on land, "it *is* so"—as many people who are not philosophers would say.¹ If we know something, we can *guarantee* that it is so.

We *trust* that we will not meet terrible weather, overwhelming waves, a typhoon where there never has been a typhoon, a gigantic whale carrying us away in a wrong direction, asking us to be kind to its smaller relatives. We are not suspicious, not doubters, nor dogmatists. We have confidence, but no knowledge.

The Logic of Knowledge Leads to Scepticism

Let me first admit that I belong to the group that has had trouble using the terms *knowledge* and *truth*. In what follows I'll talk more about us. We all *tend* to, or have *tended* to, avoid expressions such as "I know that" and "It is known that." We have even tended to avoid their use in situations in which most people would find it ridiculous or completely unfounded not to use those expressions. I have done this, for example, in discussions with professors of philosophy. I mention but do not use the terms. On the metalevel—where we shall now talk about whether we ever know anything in the strict sense—if we know something, then it is true, and we know that it is true. Sometimes we are asked, Don't you know so and so? by people who use the term very loosely in ways we do not like. Even if the possibility of error is clear, it is socially warranted to say "Yes, I know." In court, as a witness, it may even be ethically wrong to say "No, I don't *know* so" or "Strictly speaking, I don't know, but I am confident it is so." Broader usages are the normal or general way of speaking. That something turns out to be a mistake is often taken very lightly. One does not risk one's reputation by using the term loosely.

You see, we can easily get into trouble in our community if we stick to our preferred use of such expressions as "I know that . . .," "It is true that . . .," "What do you advise us to do?" Let me insert here something about the logic of knowledge as exposed in Nicholas Rescher's superbly clear and well-documented book *Scepticism: A Critical Reappraisal* (1980). I have a special reason to go into this book in detail because it is generously dedicated to me—"For (though also against) Arne Naess." Rescher lists five "patently valid principles of the 'logic' of knowledge." Numbers 1 and 5 may be formulated thus, with the letter *p* used for an assertion.

1. If *p* is a piece of knowledge, *p* is true.
5. If *p* is a piece of knowledge, then there cannot be any assertion *q* such that if *q* is true then *p* is false.

The first principle Rescher (1980: 251) calls The Veracity of Knowledge; the fifth, *very important principle*, The Irrefutability of Knowledge. In short, if something is known, it is true, it is simply the case, and therefore it cannot possibly be refuted.

I agree with Rescher that those two if-then principles are “patently valid principles” of the logic of knowledge when the term *knowledge* is taken in a definite, strict sense, and not in a loose, broad sense. In what follows I refer to Rescher’s sense as “the strict sense of knowledge,” and when I write *knowledge*, *to know*, and so on, I always refer to the strict sense, if I do not explicitly say that I refer to a loose sense.

Suppose now that *A* is the name of a person. By “*A* is a mild sceptic” and “*A* favors mild, personal scepticism” I mean the same as “*A* thinks that he or she does not know anything in the strict sense.”

Some well-informed people will say that the scepticism referred to is only a detail of an autobiography and not a philosophy of scepticism. I disagree: it may be part of a philosophy; the person may have studied the philosophers’ proposals of what certainly are pieces of knowledge, and may have argued against the proposals as unconvincing. They have not helped *A* to find a piece of knowledge. He disagrees with the philosophers studied in the sense that, after some argumentation in relation to each proposal that an assertion *p* is a piece of knowledge, he concludes that “I do not find *p* to be a piece of knowledge.” This is plainly a part of philosophical discussion—at least as conceived by Rescher in his book.

Rescher generously ends his book with this positive judgment:

Much essential clarification of the nature of knowledge can only be attained by analyzing how the key arguments deployed by the sceptic fail in the final analysis to establish his governing conclusion of the illegitimacy of claims to knowledge.

(Ibid., p. 250)

The unattainability of knowledge is a “dogmatic” thesis of the so-called Academic sceptic, according to Sextus Empiricus (*Pyrrhon.*, 1,1,1). Rescher mentions Sextus six times in his book, and nowhere does he intimate that Sextus stands for an inferior or nonphilosophical scepticism. As I interpret Rescher’s point of view, it is compatible with that of Sextus, as I interpret the latter. It seems, however, that Rescher does not agree. Interpretation is a delicate affair and I find it indispensable to quote Rescher on the matter:

The sceptic prefers to characterize his opponents as *dogmatists*. But the use of this pejorative term distorts the issue. A dogmatist is not simply someone who claims to *know* something, but one who closes his mind on the issue—

who refuses to entertain objections and heed difficulties. Accordingly, we have adopted the term *cognitivist* to designate the sceptic's opponent. The cognitivist crosses the threshold into dogmatism only if he maintains that once we claim knowledge we "close the book" on the matter and take the stance that under no circumstances or conditions would we ever retract such a claim. The position to be developed here does not take this dogmatic stance. It propounds a fallibilist theory of factual knowledge which recognizes that in principle a perfectly valid claim to knowledge may have to be withdrawn in the light of "unforeseen developments."

(Ibid., p. 3)

It is, as I see it, of crucial importance how we understand the withdrawal of the claim to know that such and such. Is it not an admission that we did *not* know? The *claim* may have been amply justified, but we did not know what we thought we knew. Principle 5 implies that there could not be valid arguments for a withdrawal if we *really* knew.

The Greek norm and adjective *dogmatikōi* does not imply closedness of mind or refusal to consider objections. A "dogma" is in most contexts "an opinion," "a thesis," "a doctrine." Sextus mentions Aristotle as an example of a dogmatic. For Sextus it is enough that they claim to have found and established at least one truth in a strict sense of the Rescher kind. If fallibilism is taken to refer to all assertions, Sextus is a fallibilist. (Tautologies are not counted because if a sentence asserts nothing—for example, "If it is raining, it is raining"—I don't conceive it to be true or false or express knowledge.)

As I shall discuss later in detail, Sextus's zetetic sceptic may use sentences of the kind "I know that such and such" and "It is true that such and such," using the terms loosely and according to social conventions. The *claim* to know may be said to be valid according to the standards of the community. That is, one is justified in claiming that one knows such and such. Calling an assertion made by myself a truth or knowledge claim, I assert that something is true or a piece of knowledge, but saying that somebody else claims such and such to be true or a piece of knowledge does not imply that I agree. That I find the claim justifiable does not imply that I agree. "Under the circumstances I find Mr. A's claim that such and such is the case fully justifiable. No information was available that should make him doubtful." I have the feeling that Rescher does not always distinguish truths and truth-claims as consistently as I think is necessary.

Sextus discusses mathematics and logic at length. It is not necessary, I

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think, to go into that much detail here. It may suffice to say that the areas of assertion covered by a zetetic sceptic include every assertion that is not a tautology.

If a claim to knowledge “may *have to* be withdrawn”—for example, that a certain gun at a certain moment was unloaded—I think it amounts to a falsification. That is, what was claimed to be a piece of knowledge was not such a piece, but a mistake. It seems that Rescher here is very, very close to the opinion that there is no empirical knowledge, no assertion that fulfills principle 5. “Unforeseen developments” implies unforeseen refutability. Or one has to show that in relation to certain empirical assertions, there can be no unforeseen developments, no new discoveries, no possible sources of misunderstanding or error. How are we able to do that?

In short, it seems that Rescher’s cognitive position is compatible with Sextus’s zetetic scepticism, and therefore also with my own scepticism: we have no guarantees in the strict sense as to what will happen in the next moment. This also applies, of course, to what we will think in the next moment. It touches every belief we have about the past. In this way the *openness of the mind* covers the past. Such a view is apt to influence our total view, if we can be said to have any: our view of the cosmos, ourselves, our duties, our lifestyle priorities, are all affected. Perhaps only mildly?

What about the highly professional arguments against scepticism that we find in Rescher’s book? I have evidently not delved into the matter as carefully as it deserves.

A crucial concept in Rescher’s system is that of a language community. To withdraw from the community is a serious thing, but to me it is not clear how Rescher makes a withdrawal decisive in his “critical appraisal of scepticism.”

Let me quote from my book what to Rescher (1980: 74) seems “quite wrong”:

If I hesitate in, or abstain from, saying “I know it” because I see (am sure I see) a *remote possibility* of being wrong, this does not necessarily violate any explicit or implicit rules of ordinary language. It may be a symptom of overcautiousness, hypochondria, hyperactivity of the imagination, or inability to square up to some formidable responsibility, but . . . I am still a member of my *language* community.

(Naess 1968: 124 [SWAN II])

The reason for Rescher's disagreement resembles those of proponents of tyrannical *Gleichschaltung*. He writes, "Nevertheless, this seems quite wrong. For in the specific regard at issue, I have (to this extent) *withdrawn* from the community in abandoning the standards that govern its practices. To refuse to countenance what *they* call knowledge as *my* 'knowledge' is as serious—and deviant—as to refuse to countenance what *they* call dogs as deserving of this appellation from my variant point of view" (Rescher 1980: 74).

The term *govern* is too strong. There are regulations in the usages of "I know that . . ." but not laws such as gravitation.

In a community of a hundred people all except one might use the expression "I know that . . ." in a certain situation. The one abstains because he or she feels sure of a remote possibility of being mistaken. This person is still a member of the language community. He may add, "I refuse to say that I know because I clearly see a remote possibility that I am mistaken." This remark does make it more obvious why he might feel an outsider, but also that he does belong to the language community. Or perhaps it is here a question of how to define a community. There are differences in tightness of communities, of *Gleichschaltung*. In a fairly open community, one may notice that a certain person uses "I promise" and "I know" much too freely, *but* communication is not seriously disturbed because of that.

That *Knowledge* Is Sometimes Used in a Strict and Sometimes in a Loose Sense Does Not Affect Communication Seriously

Suppose somebody, *B*, comes back to my community, *C*, from a long stay in the Arctic, with an animal, Peter, and suppose other members of *C* refer to it as "the dog Peter." Let us inspect three dialogues within *C*:

I

1. A: Your dog is extraordinarily expressive in the way it salutes people and other dogs.
2. B: Peter is not a dog.
3. A: It *is* a dog.
4. B: It has the following characteristics: . . .

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5. A: Aha, then I agree. Peter is *not* a dog. It is a wolf.

II

As in (I) except for the following changes:

5.a. A: Then it is a dog according to our terminology in *C*.

6.a. B: It is a wolf according to mine.

7.a. A: At least we agree about the characteristics, but you have left our language community.

8.a. B: If I persist in using my terminology in the matters of dogs and wolves, I suppose we still can communicate.

9.a. A: Sure. You will just add another ambiguity within our language community.

III

As in (I) except for the following changes:

5.b. A: No, I do not think Peter has those characteristics. It has the following: . . .

6.b. B: If that were the case, I agree that Peter would be a dog.

7.b. A: If it had the set of characteristics you mention, I would agree that Peter is not a dog.

I shall try to show that the searching (zetetic) sceptic need not cause more trouble to a linguistic community than Mr. *B* in the community *C*—that is, only very common kinds of trouble; slight trouble because of some divergences regarding vocabulary.

The pressure to conform in opinions and terminology may be heavy in small communities with close personal ties. At least, this is what some of us think was the case in rural Scandinavian communities of the nineteenth century. Today, we favor a more lenient treatment of people with odd vocabularies. Zetetic sceptics, I think, are today accepted as members of their communities. They are not thought by ordinary people to have left their language community. They are understood, perhaps inadequately, as

are many other marginal groups, but sufficiently to keep communication going.

Are there zetetic sceptics among very young people? I came across two or three when I interviewed some 250 people about truth and knowledge. The youngest was only fourteen years old but very clear in his spontaneous answers. He clearly distanced himself from “Academic” sceptics, in the terminology of Sextus. He did not reject the possibility of knowledge and finding truth, but he had never come across any. That the Earth is round he did not find to be an established truth. Nor did he regard the Academic sceptics’ rejection of the possibility of knowledge to be established.

There are, I hope, a few communities that never abstain from using “I know that . . .” because they feel sure of a remote possibility of being mistaken. Sometimes the responsibility for saying “I know that . . .” makes one look for remote possibilities. If the existence of such possibilities seems sure, most people will abstain; some will not. Anyhow, there is no limit such that if remoteness is still greater the *language* community prescribes the use of “I know” or the answer “I know” if one is *asked* “Do you know?”

Innovation in a community is largely dependent on some people taking seriously possibilities that others judge nonexistent or completely negligible. Language functions satisfactorily in allowing us to communicate in spite of extreme personal differences in judging possibilities.

A zetetic sceptic feels sure or unsure about remote possibilities of error in relation to the knowledge claims he has witnessed. He does not deny that he may often be linguistically, or better, socially, justified in accepting such *claims* as legitimate. The social and linguistic *warrant* to use the phrase “I know that . . .” is for him not a sufficient reason actually to use it. When he feels that there are remote possibilities of error, he will, perhaps, use such a phrase only in certain kinds of practically important situations, such as in law courts.

Rescher’s position leans in a decisive way upon differences between remote and near, or unrealistic and realistic, possibilities of being mistaken. In heavy urban traffic the distinction is decisive, but not always in philosophy.

As a believer in the importance of dialogues in assessing scepticism, I invite the reader to inspect some examples.

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I

A: Sometimes when engaged in painting I long to develop into a Picasso of the twenty-first century.

B: But you know you will not.

A: How do I know? The future is open.

B: You agree that it is only an extremely remote possibility.

A: Yes.

B: Then you know.

A: Really? What process do you refer to?

B: By just adhering to the basic rules of your language community, the laws of rationality, and submission to the facts of life.

A: Usage is richer and the laws of rationality less narrow than you assume! I abstain from using the expression "I know" when I feel there is even an extremely remote possibility of error.

B: I'll remember your strange abstention. We can continue our excellent communication.

II

1. A: Open the package here. Let us admit, though, that it may in principle contain a bomb that will explode if we do so.

2. B: I know there is no bomb in it.

3. A: But there is a remote or unrealistic possibility. . . .

4. B: Certainly. Therefore I repeat: I *know* there is no bomb in it.

5. A: Under the circumstances you do *not* know—that is, according to my usage.

6. B: You leave our language community if you say you do not know.

7. A: I would not say *you* leave the language community by saying "I know," but that your talk is a little queer if you say "I know there is no

bomb in the package, but there is an extremely remote and unrealistic possibility that there is a bomb in it.”

III

As in (II) except for the following changes:

4.a. B: No, I do not think there is any possibility, remote or near. If I thought there were, I would not have used the expression “I know,” and I would not have agreed to open the package.

5.a. A: Well, we disagree about possibilities, not about how to use “I know.”

6.a. B: Yes. You have not left our language community.

In the communities I am acquainted with, the position of *A* in dialogues II and III is rather unusual. If a possibility of being mistaken is explicitly admitted, one tends not to say one knows. One does not have an “adequate rational warrant” to combine a claim to know that *p* with a claim to know that not-*p* may be true. One may elaborate upon the remoteness and unrealistic character of the possibility. Nothing is lost from the point of view of (cognitive) communication. The elaboration may have the same effect—to induce *action* according to plan: “the possibility of a bomb seems so remote that we agree to open the package.”

Dialogue III is of a rather common kind in communities with which I am acquainted. Clear consciousness of a possibility of mistake disqualifies the use of “I know . . .,” or: if people believe in a concrete possibility of error, they do not use “I know” except for performative purposes. If you ask how I as a mild sceptic know all this, I will answer with Sextus that this is how it seems to me. I may be in error, but I adapt to my community’s way of talking and therefore do not use the term *seems* all the time.

Consider the case of Paul, who was labeled a zetetic sceptic by members of community *C*. In the local newspaper of *C*, in an obituary, a journalist wrote, among other things:

When hunting, Paul saw all kinds of remote possibilities—what kinds of animals we would encounter, even what kind we actually had shot. It was as if he lived in a vast number of different worlds, and was not very eager to decide which one was ultimately the real one.

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He did not find it difficult to act. He was not a “dreamer.” However, he clearly did not feel deeply certain about the actual features of the situation in which he acted, or about his own ultimate identity. He did not understand why we were so eager to proclaim that we *knew* this or that, or that such and such was *true*. He seldom was inclined to disagree, because he did not find it important to know the details of what we meant by words like “truth” in our declamations. We agreed that if he clearly saw possibilities of mistake, or believed he saw them, he had better abstain from asserting truth and knowledge. He, on his side, did not find that *we* should abstain when we did not clearly see possibilities of error. He did not criticize our usage.

If Paul thought he (1) saw possibilities of mistakes every time he consciously looked for such possibilities, and (2) often was interested in the elimination of mistakes, and (3) “undogmatically and loosely” uttered things like “Do I know anything?” and “How do I reach truth?” then Paul was a zetetic sceptic. (Compare Sextus *PH I*, section 187, et seq.)

Paul did not enter into “a self-imposed exile” from the language community. He certainly was an odd member of the community *C*, but he communicated well. His vocabulary and use of each word was exceptionally conventional.

The authors of the obituary implicitly hold that if they had felt as Paul did, they would have abstained from making the usual knowledge and truth-claims.

Finally, I shall introduce an odd member of a community *D*. He was a teacher of philosophy. When he died, a student wrote:

When I first met Alastair he was an ardent Christian, insisting that all things in every life situation were colored by his faith, and that color was of reality, not of subjective appearances. “Let us eat dinner together!” had a different meaning for him than for those without his particular faith. Meals were sacred. A glass of wine, even a grain of sand had a particular reality as a creation of God. A moment’s lack of appreciation of this reality was to him a moment of sheer blindness or lack of understanding.

Later, however, his work made him at home in different cultures. He met Christians who seemingly had a different total view in spite of using the same biblical texts as a source. He met Buddhists and people of religious and philosophical faiths that either seemed to imply the existence of different basic presuppositions or implied a denial of the relevance of some of his own. His belief was as firm as ever, but he was shattered in his former assumption that he could defend basic assumptions of his faith in terms of knowledge. Moreover,

because his faith was pervasive, and colored all his assertions, this seemed to him to imply that he could not assert flatly that he *knew* he was right and that those with different total views from his were simply mistaken. So, *he withdrew his claims to knowledge.*

When he died he was still trying to make clear, or at least to make conscious, presuppositions that he only dimly felt he had acted upon in his long life. Once in a seminar somebody exclaimed, "But Alastair, you are a zetetic sceptic!" He seemed slightly embarrassed, but after listening to explanations, he very tentatively agreed. The term *sceptic*, in its modern connotation, he found somewhat misleading, however.

The account of this student exemplifies a zetetic scepticism that perhaps can only be appreciated if we try to incorporate all our assertions into a total view, religious or philosophical. If this is done in such a way as to make the validity of any assertion dependent (but not *only* dependent) on a set of basic principles, we get into the old aporetic or paradoxical area of comparisons of total views. This seems to lead to the zetetic scepticism of Alastair if our personality is integrated to such an extent that consciousness of the dependence of our particular assertions on our total view is never completely lost. We are then beyond the knowledge/ignorance distinction, because of the deepness of premises questioned, and the pervasiveness of implications. Some might (with a smile?) call it bathyscopic agnosticism rather than zetetic scepticism.

Sloppy-Talking Sceptics

Let me come back to the mild ways of the zetetic sceptic—his lack of motivation to change the loose talk among his fellow citizens.

All through Sextus Empiricus's *Outlines of Pyrrhonism*, he suggests that he does not fight for or against definite usages of words. He does not have any special motives in ordinary social life to be more painstaking in his way of talking than other people are. He may use loosely such expressions as "I know that . . .," "it is true that . . .," "evidently," and "of course." He may also make use of all the performative functions of these expressions. Consider this little story:

John has been regarded as a zetetic sceptic, but what about his verbal behavior in a recent law case:

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John: I know Jack was in bed with stomach trouble and a broken collarbone all that Wednesday, so he could not have murdered James.

A: Is it not at least remotely possible that Jack was in bed only the first half of Wednesday?

John: No, no. That is not possible. The evidence available excludes that possibility. I know he was in bed *all* Wednesday.

In John's next seminar on epistemology, his students complained of a discrepancy between life and teaching. His answer: "I consider myself a close friend of Jack and feel it is my duty to defend him in court. With the evidence at hand I was, I think, fully entitled to use the term *know*. If I had said that I did not really know, this would have been misunderstood. I followed the usages of my community. In regard to the possibilities, I felt that there was no serious practical possibility that I was mistaken. I am known as a friend of Jack's, and if I had said, "There is a remote possibility I am mistaken," it would, I think, have been completely misunderstood. Here in this seminar, the dialogue is of quite a different kind. I would here answer very differently from how I answered in court."

The students were still not quite satisfied. John's eagerness in explaining his behavior made them suspicious: "Your explanation is full of assertions, of sentences pretending to be true?" John's answer: "This sounds strange to me. Does eagerness imply pretentiousness of that kind? May I not speak eagerly but adogmatically, in the terminology of Sextus?"

Tentative conclusion: John is a zetetic sceptic. He talks in a manner that makes me trust the honesty of his particular way (Sextus: his *agogé*).

If the dogmatic attitude revealed itself, and *only* revealed itself, in the use of the terms *know* and *truth*, one might—as some have done for years—simply abstain from using them. There are, however, expressions like "it is the case that" and hundreds of others that are in the same class. Ultimately, all simple assertive use of language is involved, including, of course, assertions like "It *is* uncertain that . . ." and "It *is* scarcely a remote possibility that. . . ." The *thoroughly* inquiring way of the zetetic sceptic can be hinted at through dialogues, but one cannot expect a zetetic sceptic to describe it through assertions. The zetetic sceptic may try to convey this by saying that he talks loosely.

If, however, a dogmatist asks him for once to talk very seriously, to be painstakingly precise and describe his exact position in epistemology, what

can he do? Answer, “I am inquiring?” (*zeteitos*). That is a rather vague and loose answer, but the more precise he makes the answer, the more clearly he involves himself in typical “dogmatic” utterances. He is tempted to interpose expressions like “perhaps,” “it seems,” “I think,” and so on, but this implies that he only then reverts to loose talk.

The moderate difficulties of communication between zetetic sceptics and dogmatists are only an instance of the difficulties of different total views. The more strictly total they are, the more difficult is straightforward clarification of the difference. The meaning of every sentence has different colors within the different totalities.

Fortunately, the resulting limitation of communication does not necessarily affect the community. People with different total views *may* have a good time together, talking or not talking. In a society there are “standards that govern its practices. To refuse to countenance what *they* call knowledge as *my* ‘knowledge’ is as serious—and deviant—as to refuse to countenance what *they* call dogs as deserving of this appellation from my variant point of view” (Rescher 1980: 74). If I “choose to be more scrupulous than the language using community,” I enter “[to this extent] into a self-imposed exile from it” (*ibid.*).

It is strange to realize, after more than eighty years of speaking, that I have lived in exile from my community. As far as I can judge, some of my friends have suffered the same kind of exile. However, it does not seem to have been like this—especially not when there is a question of being *more or less* scrupulous, and especially when my fellow beings become aware of my deviation only when we enter philosophical discussion. What in the terminology of Rescher seems to be classed as difference in degrees of scrupulousness, is, in my and Sextus’s terminology, classed as difference in degrees of looseness.

Do Zetetic Sceptics Ask for Guarantees?

Do the zetetic sceptics ask for the impossible? It seems that Rescher may have this suspicion (see Rescher 1980: 75, 226). Consider, however, the following dialogue:

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A: You say you don't know that there is no bomb in the package because you see a remote possibility that there is. What if you did not see any such possibility?

B: Then I might say "I know."

A: Do you always see possibilities for error?

B: Not *immediately*, but I have upon reflection always seen such possibilities. This probably has contributed to my tendency to avoid "I know," even if a discussion is not serious and responsibilities not heavy. Sometimes, though, I spontaneously say "I know!" "Certainly!" "True!" I do not fight against spontaneous utterances. I speak loosely.

A: Then you are occasionally and momentarily a dogmatist!

B: Ultimately, what counts is what I mean, not what sounds I make. I retreat from the use of those terms if asked, "Do you really, seriously speaking, *know*?" I retreat because I am made to consider possibilities of mistakes. Do not philosophical views rely on reflection?

A: Are you still on the lookout for positions that you cannot see could possibly be mistaken?

B: Yes, but it is no longer a question of life and death to find such possibilities. It is just one of my interests. Take, for example, my interest in logic and formal systems. Are they true in some sense? I am not worried, however. I have reached a satisfactory level of *ataraxia*, peace of mind. My scepticism is of a joyful rather than a sad variety.

A: You are looking for the impossible. There can be no views that are not possibly mistaken.

B: That seems to be the position of the *Academic* sceptics. Maybe they are right, I don't know. I have not seen a convincing argument.

A: You require the impossible when you refrain from using the expression "I know that. . . ."

B: What you say is interesting, but I do not know of any such requirement. If we meet again next year, perhaps I will, after due reflection, use that ex-

pression. I may next year have convictions that, in spite of long reflection, I cannot possibly see might be false. Perhaps I will end up as a Heraclitean. . . . Some zetetic sceptics do.

A: What you admit now is that you have no philosophy, only tentative autobiographical opinions.

B: If you insist! Why, though, do philosophers argue against me? What you say seems to imply that a philosophy *must* be dogmatic. You may be right, but I think of myself as an undogmatic philosopher.

The Rational Warrant to Say “I Do Not Know” or “Do I Know?”

Suppose there is a *social* warrant for asserting “I know . . .” in a particular situation. It seems that Rescher assumes that this implies that there is no *rational* warrant in this situation for saying “I do not know.” Let us look at the following dialogue:

A: I know the gun is not loaded.

B: Your responsibility is heavy. Check it!

A: Specify the possibilities that this gun at this moment is loaded!

B: I cannot at the moment see any definite possibility.

A: Then you know it is not loaded.

B: I am sure that it is not loaded, but we have not checked it for ten minutes. I don't *know* that it is unloaded at this moment.

A: I'll try it out. (Bang!) Sorry. I'll get hold of an ambulance and all will be well, I hope.

Even in this case, in which no definite source of error is seen and the possibility of being mistaken is conceived as remote, I would say that we have a rational warrant for asserting “I do not know . . .,” using the word in a strict sense. Otherwise, I would in my opinion here and now implicitly subscribe to a concept of petty rationality conducive to conformity or *Gleichschaltung*. Respect for reason seems to me incompatible with the de-

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nial that remote possibilities, even astronomically remote possibilities, may be relevant for knowledge claims. Social and cultural diversity rests not only on tolerance of wide differences of opinion, but often on promoting them.

Differences of opinion regarding possibilities are in practical matters crucial. What in one group is an extremely remote possibility is a very near one in other groups. Usually only a minority is aware of definite possibilities of error because this awareness presupposes lively interest and a surplus of energy. The sloppy textbook and administrative use of "It is known that . . .," "Today we know that . . .," and similar persuasive expressions has the potentially destructive effect of making people submissive. This may happen in spite of occasional warnings that even scientific knowledge is uncertain. Important alternatives in individual, social, and political life are neglected because of stiffening terminology.

Perhaps the expression "socially warranted claim to know" is better than "rationally warranted claim" because of a fatal tendency to equate rationality with what is considered "reasonable" within a group of opinion leaders. I think it worthwhile to try to save the term from such a debasement.

Rescher maintains a strange view about my view of knowledge claims:

In Naess' view, our knowledge claims are inherently flawed, because—as he sees it—the achievement of knowledge requires the prior removal of *both sorts* of possibilities, as well as the merely proximate ones. This, of course, leads straightaway to the sceptical conclusion that the attainment of knowledge becomes in principle infeasible. Thus Naess writes:

{The} incorrigibility claims [inherent in our pretensions to knowledge] are essentially based on convictions that in the particular case there could not be any source of error, both in the usual sense of "source of error worth mentioning" and in the sense of no source of error even of the more remote kinds that we neglect in daily life.

(Rescher 1980: 88)

In my view, there are socially unjustifiable and socially justifiable knowledge claims. To withdraw a claim, however, means to acknowledge that we did not know what we claimed to know, and this frank admission is completely independent from the remoteness of the possibility that the claim will turn out to be a mistake. "The accused tested the gun repeatedly. He

was fully justified in saying that he knew it was unloaded, but, alas, he was wrong. What *seemed* impossible happened." I am not for a completely new social practice. Sometimes our claims are irresponsible, but often it would mislead if we, being asked, were to say "I don't know." The incorrigibility *principle* says that we go against the strict use of the term *knowledge* if we say "I *know* that such and such, but there are remote possibilities that I am mistaken," that is, remote possibilities that I don't know that such and such.

Let us now look at the following inference.

Premise: Knowledge that such and such, implies absence of possibilities, remote or proximate, that such and such is a mistake.

Conclusion: Knowledge that such and such is in principle (absolute) unattainable.

There are no formal logical rules such that the conclusion follows from that premise. One must add one or more premises. From "I don't see how I can avoid the *possibility* of a mistake" does not follow "Avoidance of such a possibility is never possible." The situation does not change if "no one sees" is substituted for "I don't see."

I completely agree with Rescher, though, when he says: "Knowledge claims impose no inherently infeasible demands. The 'incorrigibility' of our knowledge claims require no more than that every *realistic* prospect of error has been eliminated" (Rescher 1980: 89). Claims do only impose mild demands—no realistic prospect of error from a social point of view. "You, as an adult member of our society, should have made more inquiries before you claimed to know. There was a perfectly realistic possibility of a mistake."

My general conclusion here is that what Rescher says does not substantiate that the Pyrrhonic sceptic as conceived by Sextus in any way leaves the linguistic community when he supports the strict concept of knowledge and *refrains from using the term* except when loose use of it is socially required.

One of the serious arguments against the existence of zetetic *philosophers* as characterized by Sextus may be formulated as follows: If a zetetic says something like "I do not think I have ever found any truths or possessed any piece of knowledge, but I am still inquiring," his testimony is interesting as a fragment of an autobiography. It does not deserve the name

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of philosophy. If, on the other hand, he positively asserts that he has not found, or that it cannot be found, he is no longer a zetetic. If he lets us understand that he is speaking loosely, he does not speak as a philosopher. In this case he might be said to join the cultural conversation in a postmodern sense, but not to be engaged in the exposition of a philosophy. Conclusion: there may be zetetics, but there are no zetetic philosophers. Philosophers don't speak loosely!

The above conclusion is warranted, I think, as long as the philosophy of a zetetic sceptic consists only of one epistemological point, the zetetic point. He may, however, be working within the framework or tradition of any philosophical system or tradition, not just the Heraclitean or other sceptical-sounding traditions. He may even work within Platonic, Scholastic, or Spinozistic *traditions*. To try to work and act within a definite framework, one has to *accept it tentatively*. The acceptance needed is not acceptance as knowledge, or truth.

Sextus proclaims (Pyrrhon., 1,1,1) the distinction between dogmatists and sceptics in order to present a main classification of philosophers. Other *fundamental divisions* deserve our attention, but considering other divisions does not undermine the one that Sextus makes.

Always on the Way

The human mind is an inquiring mind. When deeply engaged it pursues a mercilessly thorough inquiry. Nothing is left untouched, not even the sense impressions, not even logic. At any moment, though, the focus of attention is limited; therefore, we must work with presuppositions we neither firmly believe nor momentarily question. The more precisely we formulate the specific question we focus on, the clearer is our awareness of the questionable assumptions we accept in order to formulate that particular precise question. With a change of focus, any of these assumptions may, it seems, be questioned.

Nicholas Rescher, in his meticulously fair but critical survey of arguments, reminds me of the human inability, whether desirable or not, to live continuously engaged in questions regarding inquiry into deep premises of thinking, premises of our own actions and our own way of life. This inability may be a "fact of life," or maybe it is not. It may make it insincere to

Trust and Confidence in the Absence of Strict Knowledge and Truth

avoid expressions like “I *know* that . . .,” and “It *is* true that. . .” I am not sure about this inability, however. Perhaps even some of those who often use the expressions freely, even sloppily, do have continuously an awareness of undecidedness and a persistent desire for further inquiry. Some searching souls are perhaps sufficiently integrated to live *consistently* the life of a conscious, vigilant, searching, joyful sceptic.

III

EMPIRICISM, POSSIBILISM,
AND PLURALISM

How Can the Empirical Movement Be Promoted Today? A Discussion of the Empiricism of Otto Neurath and Rudolf Carnap

Preface, 1956

This little treatise was written in the years 1937–1939. At that time logical empiricism as a philosophical movement was hardly known here in Norway. Today there are many who not only know about it but who have studied it more or less carefully. These circumstances are part of the reason that I did not want to publish this paper before the war, whereas I now consider the moment suitable for publication.

This essay concerns the logical empiricism of the 1930s. The authors discussed have since modified their opinions in several respects. This is particularly true of Rudolf Carnap. I believe the treatise may nevertheless contain something of interest. Carnap has already become a “classic.” A discussion of his viewpoints, at whatever phase of his production, benefits the general interest. Added to this is the fact that the treatise represents a

This paper, originally written in German during the years 1937–1939, was made accessible as a mimeographed semipublication in 1956 by the Institute for Philosophy and the History of Ideas, together with Universitetsforlaget in Oslo, under the title *Wie fördert man heute die empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolf Carnap*. This (authorized) English translation of the German text is by E. M. Barth. The editors warmly thank Mr. H. Isaacson for his suggestions for improving the English. Footnotes dating from 1939 are indicated in the usual manner. The numbers between brackets refer to the notes and comments in appendix I that were added by Naess in 1956.

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kind of empiricism that even today differs from the usual sort, an empiricism “without dogmas” and with “research,” not “science” (scientism), as its central slogan. I hope soon to have the opportunity to discuss from the same point of view some of the schools that have evolved more recently with analytical and empirical tendencies, in particular, the so-called Oxford philosophy.

By means of notes and comments (see appendix I, page 198) I have tried to link the treatise with the problems that command particular interest today.

I owe sincere thanks to Cand. jur. L. Porsholt for the considerable interest he has shown in this treatise and for verbal and stylistic improvements to the manuscript. He also took care of the translation (into German) of the two appendixes, which were originally written in Norwegian.

There Are No Universally Valid Demarcation Criteria

In textbooks on the history of philosophy, positivism and empiricism are discussed as certain doctrines among other philosophical doctrines. By means of abstract and often unclear concepts like ‘data’, ‘facts’, ‘experience’, and ‘science’, short and elegant formulations are made up that supposedly “define” empiricism and positivism. [1] [Numbers in brackets refer to appendix I.] These definitions are intended to serve as demarcation criteria (*Entscheidungskriterien*, decision criteria) that allow for a classification of the various doctrines, as is usual in the history of philosophy. One should be able to distinguish “criticism” from “empiricism,” “pragmatism” from “Bergsonism,” and so forth. The question arises of whether one can regard these formulations as adequate without completely disregarding the actual, ordinary uses of language. Through these formulations the empiricists, so to speak, meet the metaphysicians on their own ground: the empiricists offer formulations that are hardly inferior in abstraction, generality, and ambiguity to the acknowledged metaphysical formulations. I sympathize with those who, given these definitions, are neither empiricists nor positivists and who thus have to rank as metaphysicians. I agree with the metaphysicians in decisively rejecting the doctrines that one is supposed to accept in order to be a true and real empiricist. One renders the antiempiricists a good service when one defends such points of view.[2] In

the first place, one leaves the field of scientifically defensible formulations; in the second, one remains stuck with assertions that—insofar as they are a kind of negation of metaphysical points of view—have a meaning only as contraries to the latter and do not represent any independent contribution.

One of the merits of the logical empiricists is to have brought about a break with tradition on this point. The first steps toward emancipation from the scholastic mode of discussion have already been taken, and the unique capacity for development of the logico-empirical orientation guarantees that other steps will follow. I believe that with my proposals for changing formulations for the logico-empirical attitude, I am in accordance with the intentions of the triumvirate Carnap, Frank, and Neurath—but perhaps I am wrong.^[3] In any case, many of their formulations seem dubious to me. To discover how the various formulations of this triumvirate are to be understood, I shall in the following pages choose a polemical style whenever this seems to me to serve the purpose.

There are some people who, though not always preoccupied with the special problems of any of the highly developed sciences, refer more frequently than other people do to the statements of so-called scientists and who in matters of ideology as well prefer to subscribe to the opinions of scientists rather than to those of other population groups. Whether the non-verbal behavior of such people has certain common characteristics is a question that may be left open; this problem belongs to characterology and to the “study of the behavior of intellectuals,” as Neurath called it.¹ In any case, I assume that certain linguistic habits occur more frequently and with a stronger positive emotional coloring among scientists than in other groups, and that utterances such as “He is an empiricist,” “He does not tolerate speculation in these matters,” and “He leaves it to future research to come to a decision here”^[4] are used more often to refer to scientists than to other people.

Since terms like *empiricist* belong to ordinary language, and I assume (though I may well be mistaken) that the class of people who definitely count themselves as empiricists includes the class of people who have the attitude that I call empirical, I shall retain the word *empiricism* and state a number of theses and programs regarding the “empirical attitude.” If someone finds these theses and programs unacceptable, then there are two possibilities: either the two of us use the word *empirical* about different and

partly contrary attitudes, or he regards the thesis as not quite appropriate for that attitude, as exemplified in certain individuals, that we both call empirical. My first thesis is as follows:

1. Given a class of sentences, some of which are compatible with the empirical attitude and others of which are not, there is no decision procedure (*Entscheidungskriterium*) allowing of a short formulation (in, say, fewer than 1,000 words) that can be applied to distinguish those sentences that are compatible with the empirical attitude from those that are not.[5]

By stipulating that the criterion must not be too comprehensive, I eliminate the possibility of enumerating, in formulation of the decision procedure, all those sentences of which one—with a certain probability—can assume that they are regarded as “incompatible.” History teaches us that certain examples always recur.

When I say that there is no decision method, I only mean to state the untenability of the decision criteria that are at hand, not the “impossibility in principle” of formulating such a criterion. At any moment, one can find certain problem areas within which the discussion about what is compatible with empiricism is carried on with particular fierceness and scope by participants of high reputation. One discusses, for example, how seriously one is to take certain theoretical constructs such as “atom,” “*n*-dimensional space,” and so on, when one wants to make physical statements by means of them. Then there is the discussion about whether psychoanalytical theories can be accepted within the framework of the empirical attitude. Certain unverifiable assertions make for a wider area of debate. Assertions of this kind, of which even their advocates admit that they can neither be strengthened nor weakened within a finite period of time, are made. Is the admission of such assertions compatible with the empirical attitude?

It may seem that it would be much easier to set up a decision criterion of the said type when the class of sentences concerned in thesis 1 is limited to a certain field of discussion than when no such limitation is undertaken. However, to my knowledge such a decision has not as yet been found for any concrete field of problems.

The contributions one hopes for from such a decision criterion can, however, be reached in other ways. I offer the following thesis:

2. Within a given area of debate it is practically possible to sum up certain groups of assertions that empiricists regard as antiempirical by means of suitable formulations. Furthermore, it is possible to come to an agreement to avoid these assertions until further notice—to start with, in the area of debate in question; second, in any area of debate.

Even if only a small number of contested assertions could be neutralized in this way, it would help to promote the empirical movement.[6]

There are decision criteria that have been frequently applied, and often successfully, such as the criterion of verifiability of the Vienna Circle. By demanding from an opponent in a discussion that he must state the conditions under which his assertion is to be regarded as verified, and the conditions under which it should be regarded as falsified, one often enforces a certain concretization like that which the pragmatists obtain by means of a related discussion technique. The Bridgman method of asking for “operations” has become very popular (Bridgman 1927, 1934). A concretization usually requires an empirical formulation of the problems; it gives a direction to the discussion that makes it easier to bring to the fore the empirical component of the standpoint. If, on the other hand, the decision criteria—for example, statements about verifiability or, to use a term from Carnap’s recent publications, “reducibility” (Carnap 1936a, 1936b, 1937)—are elaborated to doctrines and defended as theses, then one constructs an unwieldy theoretical superstructure above practical and expedient technical instruments for discussion, and thereby weakens the empirical position.

The same holds for operationalism. In *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge Acquisition and Scientific Behavior), I have tried to point out the weaknesses of an “operational view” that is presented in the heavy armor of a general doctrine.

When the decision criteria that are presented in the form of theses are replaced by proposals for the technique of discussion, in given areas of debate, they lose their external dignity but they gain in efficiency. This observation leads to the following thesis:

3. It is practically feasible, in connection with assertions occurring in given fields of debate, to set up certain general demands by which the elimination of nonempirical formulations is facilitated. Such

demands may be regarded as technical instruments for empirically oriented discussion and exposition.

Should anyone be of the opinion that such a demand ought to be universally valid for every sentence compatible with the empirical attitude, or that it be anchored, for example, in the "Logic of Science," then it would be desirable to distinguish this opinion from those according to which this demand may promote empiricism as an instrument in discussion. One then would have a technique for discussion in common and disagree only as to the import of these demands when they occur in the form of statements about statements.[7]

Carnap's and Neurath's Demarcation Criteria: Physicalism

Many physicalist formulations seem to me speculative. Popper has called physicalism "metaphysical." That seems to me to be merely a polemical sharpening of the situation. The question I want to discuss below is not whether physicalism, version 1936–1937, is antiempirical but whether it proves useful. It then becomes important how one interprets it. The presentations of physicalism are extremely brief compared with the enormous pretensions that they represent.² One does not quite know how to interpret physicalism in detail.

For the following analysis I have to choose whether to interpret physicalism in a very benevolent manner or to stick more closely to the available formulations of it. I choose the latter. It would be a demonstration of a particular disdain for physicalism were one to agree with its adherents only because one had the feeling that they were working for the same general goals as oneself and because one therefore had a "positive transference" in readiness. It also may be seen as a characteristic feature of the writings of Carnap and Neurath that they culminate in concrete formulations that are supposed to stand on their own feet.

What brought Neurath to set up the first formulations of physicalism? According to his own statements (Neurath 1936c), it was the conviction that one could (and, we add, that one should) discourse about stars and about human beings with the same "logical technique" and in the same scientific, unexalted—and for Neurath that means unmetaphysical as well—way. Who-

ever has such a feeling will enthuse about physics as a lover of art may enthuse about particularly outstanding works of art. One may well recognize the limitations of the scientific achievements of the physicists and dissociate oneself from the *philosophizing* physicists; something will nevertheless remain that may serve as a model for research workers in fields other than physics. Hence, the frequent attempts to imitate the physicists, to use their terminology, to carry their questions over to biology, psychology, and sociology. [8] These attempts probably do not originate so much in the conviction that physical doctrines are directly applicable to these fields as in the feeling that the physicists' fundamental attitude and their working methods, which have been corroborated over a long period of time through a series of scientific investigations, will be more easily carried over to other fields when something of the external equipment of physics is brought along at the same time.

The formulations of the nineteenth-century materialists mostly portray very crude and strongly ideologically impregnated attempts to carry out this transfer. Since those attempts reflect their predilection for the more metaphysically-ontologically colored physical theories, they are completely valueless today when taken as expressions of a basically scientific attitude. Neurath wanted to find a formulation that could measure up to the high standards of advanced research into foundations, of a theoretical physics understood as being in the process of undergoing deep changes, and of a discussion technique sharpened by the rise and dissemination of the new logic. I believe that the first formulations of physicalism should be evaluated from the point of view of this goal.

The goal is a high one, and I believe that one would have to be extremely generous to take the first formulations seriously. Carnap and Neurath are, however, absolutely prepared to regard these formulations as attempts that have been outstripped by formulations from recent years. Are those later formulations now to be regarded as improvements of the former ones on essential points? One might suppose that the changes have been made only under pressure from criticism and that they therefore are of a negative, unfruitful kind. I believe that such a supposition would be mistaken. The formulations have undergone a profound development, and the readiness to start anew and to admit earlier weaknesses does the physicalists great credit. This readiness is a much better guarantee of their basically scientific attitude than are their keenest formulations.

Let us declare, then, so as to simplify the discussion, that the older formulations of physicalism—say, until 1935—are to be regarded as “null and void.” It may nevertheless be worthwhile to take a closer look at them. Perhaps the line of development that connects these formulations with the current ones can be extrapolated so that it may give us an indication of how to develop the physicalist formulations still further.

In the domain of German culture, questions that do not uniquely belong to one of the special sciences are largely in the hands of members of the philosophical schools. The first formulations of physicalism were characterized by opposition to the view that such questions must be left to metaphysicians with or without a scientific education. German scholars were accustomed to the idea of acknowledging an authority over and above the sciences. This had led to an outlook on philosophy as a science with whose results the achievements of the special sciences must be in keeping in order to be “true,” and to which all questions belong that are not yet really dealt with by any special science. When physicalists say “There are no philosophical sentences,” this is a somewhat breezy expression of their rejection of this philosophical authority. The very strong position of professional philosophers, and especially their strong tendency to isolate themselves vis-à-vis science, is specific to the German culture. The sharp counterformulations (*Abwehrformulierungen*—the expression is Neurath’s) against the metaphysicians lose much of their point when they are used, say, within the English culture. A great weakness of the original formulations of physicalism is that they are much too clearly inspired by the wish to ward off a strong enemy who threatens to press the physicalists in their isolation against the wall. Under the influence of empirically oriented investigators from outside Germany, the physicalists could permit themselves to speak more freely. They became inclined to replace antimetaphysical formulations that were influenced by “local” feuds with ametaphysical ones. This replacement must, I believe, lead to the dissolution of the decision criteria that are formulated as theses. They have the important property in common with the counterformulations of having clear meanings only as negations of metaphysical utterances. When one asks for further content, they turn out to be ambiguous and hardly testable.

We now want to consider the most recent formulations of physicalism. The latest comprehensive formulation I know of comes from Carnap:

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The so-called theses of physicalism assert that every term of the language of science—including besides the physical language those sub-languages which are used in biology, in psychology and in the social sciences—is reducible to the terms of physical language.

(Carnap 1936a: 467)

It will be necessary to analyze the terms *language* and *reducible* more closely. What does Carnap mean by these words?

Carnap's Term *Language*

To those unfamiliar with the special linguistic tenets of the physicalists, it will sound somewhat strange to hear about a "language" of science. Does science have a language of its own? To answer this question one has to investigate in more detail how Carnap uses the term *language*, for among physicalists *language* is a technical term, just as *world* is a technical term in Minkowski's publications or *Kapteyn universe* is a term among astronomers. In the English, and most recent, edition of his *Logical Syntax of Language*, Carnap comments on the term as follows:

(S1) By a language we mean here any sort of calculus, that is to say, a system of formation and transformation rules concerning what are called expressions, i.e. finite, ordered series of elements of any kind, namely, what are called symbols.

(Carnap 1937: 167)

(S2) In the widest sense, logical syntax is the same as the construction and manipulation of a calculus; and it is only because languages are the most important of calculi that, as a rule, only languages are syntactically investigated.

(S3) When we maintain that logical syntax treats language as a calculus, we do not mean by that statement that language is nothing more than a calculus. We only mean that syntax is concerned with that part of language which has the attributes of a calculus—that is, it is limited to the formal aspect of language. In addition, any particular language has, apart from that aspect, others which may be investigated by other methods. For instance, its words have meaning; this is the object of investigation and study for semasiology. Then again the words and expressions of a language have a close relation to actions and perceptions, and in that connection they are the objects of psychological study. Again, language constitutes an historically given method of communi-

cation, and thus of mutual influence, within a particular group of human beings, and as such is the object of sociology. In the widest senses, the science of language investigates languages from every one of these standpoints; from the syntactical (in our sense, the formal), from the semasiological, from the psychological, and from the sociological.

(Carnap 1937: 5)

From this it is fairly clear that “language” for Carnap consists in a system of rules, meaning not primarily in, say, a vocabulary and a grammar. The “expressions,” a subclass of which are “terms,” belong to a definite language only insofar as they are mentioned in certain rules. This is probably the sense in which the term *language* should be understood in the paper “Testability and meaning.”

The “language of science,” then, means a system of rules for the expressions occurring in science. Since such a system of rules has not been produced, I draw the conclusion that “rule” in Carnap’s writings is not always replaceable by “historically present, explicitly formulated rule.” Also, by “system” he can hardly mean “elaborated system”—for such systems exist only within metaphysics.

Certainly there are expressions that could be counted as “explicitly formulated rules of science.” I take a publication that I call scientific and soon find a sentence that no doubt may pass for one, “Behind every radioactive element its half-life is listed, whereby *s* means a second, *m* a minute, *d* a day, and *a* a year.” Here a rule is given for the use of the expressions involved (in this case the Latin letters *s*, *m*, *d*, and *a*). As long as nothing more is said about the utterances that are to be regarded as rules, I conclude that rules that have been explicitly formulated always say something (but perhaps never everything) either about the form of certain expressions or about the transformation rules that apply to them, and that they always have a validity range, though one that mostly is not explained. In the case just mentioned, the tabular use of the expressions *s*, *m*, *d*, and *a* is covered by rules, and the table constitutes their validity range. More briefly, we may say that the validity range of a rule can be determined by specification of two things: (1) a topic for discussion (in this case “tables of decay series of radioactive elements”), and (2) one or more authors who set up the rules and intend to use them.

We shall not delve into the question of possible criteria for what in a given concrete text constituting a scientific treatise is to count as an “ex-

plicitly formulated rule." I think, however, that it would be highly desirable to make this expression more precise, and to do so by means of examples from historically present texts. For rules do not fall from heaven; they are primarily utterances made by definite persons.

It emerges from Carnap's writings that by "rule" he—often, at least—also understands "implicit rule." To the implicit rules belong implicit determinations. An example is "If from the totality of all numbers one separates a finite or infinite part according to some point of view or other, then this part forms a numerical set." Here something is determined about the expression "numerical set." From Carnap's doctrine on pseudo-object sentences, it becomes clear that his concept of an implicit rule is very wide. For the implicit rules as well as the explicit ones, it holds that they occur in certain fields of science as products of the activities of certain authors at certain moments. Moreover, any determination of the implicit rule in a given text is afflicted with the same kind of uncertainty as every other activity. One has to count the possibility that different people can come to different conclusions with respect to the question of which rules are implied in a certain case. This shows the necessity for concrete specifications of how the "rules of science" are arrived at.

In addition to explicit and implicit rules for the formation and transformation of scientific expressions, there are observable regularities among the expressions. Regularities may be taken as symptoms of rules if one assumes that a rule is more or less consistently followed and that thereby a systematic distribution of the expressions often emerges. The trustworthiness of the regularities as symptoms of rules is a matter of observation. There are also regularities that are seldom mentioned in rules. In Carnap's publications, for example, expressions are usually ordered in parallel layers that run straight across the pages. When one finds that the distribution of certain expressions obeys a certain law G_1 , then it also (for example, according to Newton's interpolation formula) turns out to obey other laws. One cannot therefore say that the distribution follows a certain rule. One could, however, say that among any number of rules it also obeys a certain rule R_1 . This mode of speech is inadequate inasmuch as it may evoke the understanding that rules as names for regularities of signs are quite something else than regularities in other phenomena (for example, in the distribution of a species of trilobites). In the following, we shall not call statements about regularities rules.

The Expression “All Terms of the Language of Science”

We have now reached a stage at which we can undertake an analysis of the expression “all terms of the language of science” as a whole. As examples of terms, we believe one can list *pitch*, *volume*, *cross section*, *pain*, and *true*. *Terms* and *expressions* belong to the terms as well, insofar as the syntax of the language of science is understood as part of science. “Syntax, pure and descriptive, is nothing more than the mathematics and physics of language” (Carnap 1937: 284). (We here allow ourselves to assume that by “language” Carnap does not mean “system of rules” but “expressions that show regularities.”) What is to be understood by “all terms of the language of science” depends on which concept of “rule” is chosen and on how the relation of terms to language is understood. According to the technical meaning Carnap gives to the word *language*, it would seem that the expressions to which rules refer constitute the “expressions of language.” Then “all terms of the language of science” must, as far as I can see, mean all those terms that are (1) affected or (2) completely regulated (meaning, their usage is completely determined either by the explicit rules for expressions of science or by the explicit and implicit rules for expressions of science).

Apart from these four possibilities, there are at least four others—if regularities in the usage of scientific expressions are taken into consideration. I mention this only to emphasize that if one wants to settle the question of the final meaning of the expression “physicalism,” one has to make a choice. When reading about physicalism I continually have to choose, without knowing which choice the author has made.

The difference between (1) and (2) I understand in this manner: when there is at least one rule that refers to a certain term, then that term is affected by that rule. When one stipulates about use of the expression “o”: “Division by o is not permitted,” then this expression is already affected by this rule. In connection with symbolic languages, one often claims that usage has been completely determined, and not just for the situation in which the term is possibly ambiguous. I see no reason for supposing that the usage of an expression can be completely and univocally regulated.³ To come to an assessment of physicalism, it suffices to assume that one can speak about more or less complete determination, and that a very high degree of completeness is possible. As has often been emphasized, symbolization does not guard against ambiguity of the rules, since these are introduced and com-

mented on by means of nonsymbolic languages. After the rules have been introduced, one can, of course, formalize them using only symbols, but these symbols must be introduced by means of ordinary language. If Carnap's concept of rule is to be directly applicable to a given text—to geological writings, say—one must be informed about how he roughly imagines the determination of the usage of expressions, at least for some concrete examples.[9]

What Are the Terms of Science?

Let us take a scientific text as an example. In Holleman's *Lehrbuch der organischen Chemie* (Textbook of organic chemistry), section 28, we read that "Methane occurs in the gases flowing from volcanoes." It seems rather clear that one can find at least one explicit transformation rule for the expression "methane"; consequently, this is a term of science. "Occur" is hardly affected by the rules of chemistry. It is, however, present in its vocabulary. One can interpret the latter as a system of rules for the use of words; hence we can also say that "occur" belongs with the terms of science (provided implicit rules are counted as belonging to the language of science). In this manner, one can probably leaf through all of Holleman, and it seems to follow that the expressions of complete texts are expressions of science. When I count a text T as belonging to science, then the expressions of T all belong to the expressions of science, provided (1) one understands the concept of rule as so wide that implicit rules are included, and (2) all terms that are affected by rules are counted as belonging to the language. If the vocabularies are to be utilized as sources of rules, then one must realize that hardly a single term of occult writings falls outside the class of scientific terms. Suppose t_1 is a term of the object language and also belongs to the language of science; it cannot be excluded that one can find a term t_2 that the vocabulary connects both with t_1 and with t_3 —an occult concept. Thereby the term t_3 is affected by transformation rules of science and consequently belongs to science—according to Carnap's explanations.

If, on the other hand, one demands that the use of an expression be completely and uniquely determined if this term is to be reckoned as belonging to science, then I believe there are no terms of science. In any case, I know of no example of such terms. It would be a weighty argument if the physicalists could present such a term.

Carnap's Term *Physical Language*

Let us give the name "physical language" to that language which is used in physics. It contains the thing-language, and, in addition, those terms of a scientific methodology which we need for a scientific description of the processes in inorganic matter.

(Carnap 1936a: 467)

Let us give the name "thing-language" to that language which we use in everyday life when speaking about the perceptible things surrounding us. . . . A sentence of the thing-language describes things by stating their observable properties or observable relations subsisting between them.

(Ibid., p. 466)

Let us immediately notice that Carnap's style in his treatment of this question is quite different from the usual style in his *Logical Syntax of Language*. The expression "perceptible things surrounding us" is almost lyrical in its indefiniteness compared with expressions such as "numerical expression," "logical content," and "functor-variable." A linguist or psychologist would not seriously proffer statements to which "rules for expressions we use in everyday life when speaking about the perceptible things surrounding us" would not be applicable. How are we to distinguish such expressions from others? Countless questions arise and demand a solution before one can take the expression seriously. Carnap does not offer any helpful comments—one simply has to accept the expression in order to continue. I take it that the matter is simplified by Carnap's statement that the "thing-language" describes things by means of sentences about observable properties or observable relations between them. In the following, I shall therefore analyze this definition (*Bestimmung*) and disregard other ones. The analysis is rendered more difficult by the fact that "observable" can be interpreted in several ways. Were Carnap of the opinion that a sentence belongs to the thing-language whenever he—or another authority—concludes that it says something about something observable, then other conclusions would follow under other interpretations. In the said case, the question of whether the sentence—as a complex of signs—does or does not contain observation terms would be unimportant. The weight of the sentence would depend on whether experts find that it expresses something observable. Meanwhile, I find no indication in Carnap's texts that would make such an interpretation

probable. The most reasonable interpretation of “thing-language” therefore seems to me to be that it consists of sentences that contain observation terms. This leads to further conclusions.

According to Carnap, the physicalist language is to consist of the thing-language and the technical physical language. This specification indicates that Carnap does not count the terms of the complete text of a physical treatise among the expressions of physical language. It is very easy to see that only a fraction of the expressions are observation terms or technical terms. On the other hand, it seems likely that very many expressions of ordinary language are to be found in physical treatises. This means that texts have to undergo a reduction before one, on Carnap’s definition, can say that they are now written in physical language. We could formulate guesses about how this reduction could be done, and one cannot say that Carnap has not expressed himself about the concrete execution of the reduction. It will suffice to observe that it is a thorny and complicated matter in whose executability I rather believe, although it has not yet been demonstrated. These about such reducibility are worthless, but research programs are fruitful.

Carnap’s Term *Reducible*

The main difference between the formulation of physicalism in the period 1932–1935 and the 1936 formulation is that the terms *definability* and *translatability* have been replaced by *reducibility*. It is desirable to arrive at clarity about this difference. It is easy to characterize the distinction in abstract terms: There are cases in which scientists introduce sentences that cannot readily be tested by the production of an experimental situation. Nor can they be eliminated by substitution. One can, however, often indicate the observational conditions under which they are to count as verified, as well as the conditions under which they are to count as not verified. Carnap believes that this manner of introducing sentences, and thereby terms, is legitimate. This implies that the earlier formulations of physicalism must be abolished. They presuppose that terms that have once been introduced can be eliminated, namely by the equivalences that define them. The explications on reducibility seem to be clear—until one starts to look for examples of sentences that cannot be eliminated on the basis of a definition and that

nevertheless can be verified via reducibility. Carnap's example on page 64 of "Testability and meaning" is extremely complicated and anything but clear to me.[10] I believe, however, that the distinction between definability and reducibility can be clarified. This would presuppose the analysis of many examples, which would require complicated comments and explanations. Without such explanations, the distinction between the sentences that are concretely available in some scientific treatise, with a description of its properties, and a rendering of these sentences in a symbolic language with specified introduction-clauses, is much too large to secure an unequivocal rendering.

I make the following prediction. Given ten people who have made a serious study of Carnap's writings and whose intelligence quotients are not lower than 125, Carnap is allowed to choose ten sentences, by means of a random procedure, that in his opinion partly can be tested directly and partly can be introduced by reduction. The subjects are given the task of indicating the conditions under which the testable sentences are testable, and how the terms of the reducible sentences can be reduced. Here is my prediction: fewer than eight sentences will "correctly" be judged to be testable or reducible. More than 50 percent of the given testing conditions or reductions will differ from those that Carnap had set up. My confidence in the unique feasibility of the reduction of sentences would greatly increase if this prediction, whose further elaboration I leave to the physicalists, is not confirmed.

The reducibility of sentences seems to me to be a formalized expression for the specification of the meaning of a statement by "operations" (Bridgman). In those cases in which this method is successful, reduction will also be successful; when the specification of certain operations is practically excluded, reduction will be dubious as well. I therefore think that reducibility should definitely not be regarded as a necessary condition for the scientific legitimacy of a sentence.

Now suppose that reducibility is instead taken as a sufficient condition. By "reducibility" we shall not understand "general reducibility" but "nongeneral" or, as I shall call it, "singular reducibility." When one investigates metaphysicians' writings, one finds that their sentences and terms are singularly reducible to sentences and terms of physical language.[11] For example, they commonly use historical events as arguments. These are usu-

ally formulated in ordinary language. What most metaphysicians do not want to admit is precisely that their terms and sentences may be translatable, meaning eliminable. Without a systematic investigation of concrete examples of antiempirical formulations, it is not possible to set up decision criteria.

In my opinion, it follows from what has been said that the criterion of reducibility cannot be used as a decision criterion, for two reasons:

1. General reducibility as the criterion excludes most, if not all, present sentences of scientific texts.
2. Singular reducibility as our criterion cannot prevent the inclusion, for example, of occultism and metaphysics of every kind in science.

Concluding Remarks on the Formulation of Physicalism

It is not possible to take a uniform standpoint on physicalism since the concept is not unequivocal. Even if one takes the concept of rule as so wide that implicit rules are included and one understands "reducible" as "singularly reducible," many scientific statements are excluded from physicalist language by the physicalists' thesis. On the other hand, some statements that one does not like to see as scientific are thus reducible. In short, there are terms in scientific language that are not reducible to the terms of physical language, and there are nonscientific terms that are reducible to physical language.

If, on the other hand, only explicit rules are included in the language of science, then the physicalist thesis becomes a thesis about infinitesimal parts of the texts of the scientists. If—a third possibility—one starts from "reducibility" in the sense of "complete reducibility," then I fear that there would not be a single scientific text whose terms are reducible to physicalist language.

Our assumptions concerning what Carnap understands by the words *language*, *scientific*, *rule*, *observable*, *reducible*, and so on, on which we have based our conclusions, are numerous, and hard to check at that. It is therefore more appropriate to say that, given the way in which physicalism is formulated today, I do not have the necessary means for understanding it, not to speak of testing it. One might retort that under these circumstances

it would be better not to mention it at all or else to await the offer of more material from the physicalists. It is questionable, however, whether the physicalists take supplementation to be necessary.

As the physicalist thesis lies before us today, it indicates a special attitude toward certain very general questions. Perhaps we may be allowed to read one of Carnap's remarks at the end of "Testability and meaning" as saying that the thesis is meant as no more than a suggestion: "The object of this essay is not to offer definitive solutions of problems treated. It aims rather to stimulate further investigation by supplying more exact definitions and formulations, and thereby to make it possible for others to state their different views more clearly for the purposes of fruitful discussion" (Carnap 1936a). There can be no doubt that Carnap has reached this goal. He has introduced new and fruitful precisizations (*Präzisierung*) in areas of debate in which precise formulations are extremely rare. However, one cannot achieve a uniform, equable precision at one blow where there was none before. Carnap's manner of making his statements more precise may be called insular insofar as he attempts to set up theses about science in general or about empiricism (for example, responses to positivism).[12] Most of the relevant questions one would have to raise have not yet been formulated empirically, not to mention the task of making them sufficiently precise. This makes it even more desirable to produce recommendations for expository and discussion practice. Such a focus does not block the way for a later use of them as supportive reference material for far-reaching theses.

The methodical avoidance of an exposition in terms of "theses" when "recommendations" would better suit the situation has admittedly not yet become common practice. It becomes a matter of course, however, when a unification of the sciences is achieved in the sense of the empirical movement. Later on, I shall touch upon the questions forced on us by Neurath's idea of the encyclopedia. One should not lose sight of the fact that the physicalist speaks of Science as a whole, and hence makes statements that I as an empiricist want to treat with the greatest caution. For, in general, such statements are nothing more than substitute products—and poor substitute products at that—for metaphysics, unless they are simple defense formulations against metaphysics. This is the way in which I, for example, understand my own treatise *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge Acquisition and Scientific Behavior).

Is It at All Possible to Determine the Meaning of a Statement?

Closely connected with the question of physicalization is the question of whether the physicalists are intervening in the psychologists' discussions and, if so, with what success.[13] Carnap and Hempel have more than once emphasized that such intervention does not and cannot take place. Nevertheless, one finds Carnap writing, in connection with the derivation of protocol sentences from physicalist sentences: "In descriptions of states of the body attention should be given above all to the state of the central nervous system, and here again in the first place to the cerebral cortex." Admittedly, he does add: "For our purposes it will not be necessary to go into further details" (Carnap 1932a: 457). Does the logical aspect stop exactly here?

The quoted utterance by Carnap is "of a logical nature" insofar as one can maintain that the statements of the neurophysiologists are chosen as objects of research, but is the selection of statements by neurophysiologists, who often contradict themselves, made according to logical criteria? There are neurophysiologists who maintain that they use Bergson's philosophy in their own work. I do not know by means of which syntactic rules one could justify choosing the opinions of one physiologist over those of another. In any case, there is a conspicuous similarity between Carnap's logical theses and the theses on the philosophy of nature formulated by materialistically oriented physicians in the nineteenth century. Certainly, this similarity is no argument against Carnap's theses. It remains to be seen, however, whether ideas of this kind will suffice for the solution of the problems that occupy physiological and psychological research today. The scientists themselves do not agree on this point. Among physiologists, there are quite a few who talk about "brain mythology" when ideas of the said kind are brought forward. This assessment is amply represented precisely among behaviorists and scholars of related provenance.

Voices are heard against the wish to reduce behavioral laws to laws formulated by means of the customary, although heavily misused, concepts of physiology. By such a reduction, one often only achieves the replacement of clear and pure and practically testable statements with statements of dubious testability that are no more suitable for use in further prognosis—some would say less.

We shall not take a stand in this discussion.[14] For us the only important question is, Does one always stand up for empiricism by propagating the thesis of physicalization? I believe that it is often worthwhile to emphasize the achievements of the physicalists. In certain discussions with relevance for the general question of empirical decision criteria, it would, however, not be useful. Statements on reducibility ought to be avoided as too speculative. Instead of statements, we would like to see programs, which ought to be differentiated over the various front lines of research.

The examples that have been adduced in favor of physicalization show that the physicalists do take a stand, at least indirectly, in regard to the ongoing discussion in physiology and psychology. Some questions in the physiological discussion admittedly do have a logical aspect, and Carnap has tried to isolate this aspect. Over and above this, however, the physicalists have their own opinions in matters of physiology and psychology. The isolation of questions of syntax from object questions as a program for future discussions cannot be dealt with here.

The syntactical properties of the language of science are changing with time. It is hardly possible to isolate them completely from the other properties of the language. In fact, such an isolation might be a liability to the empirical attitude. At least this may be said when Carnap's theses are interpreted in a certain and very reasonable manner. Given the clearly empiricist basic attitude that Carnap has displayed on other occasions, one might regard this interpretation as unjustified. I find it difficult, however, to give a sense compatible with the empirical attitude to the following utterance made by Carnap:

In applying a procedure we are free [he refers to the experimental method in psychology], but not in our interpretation of the sentences we have obtained. The sense of some sentence, however arrived at, does not issue unequivocally from the logical analysis of the procedure we have used to obtain and to test it.[15]

(Carnap 1932b: 138)

Sense, content, meaning, and similar words seem to be very simple things. From the way they are used, one gets the impression that it would always be easy to find "the sense of a sentence." Assertions about the meaning of a statement, *p*, are best understood as hypotheses, however,

provided the assertion is somehow supposed to be brought into connection with the current use of *p* in linguistic communication. One might expect statements about “obtaining” and “testing” systematic sentences to have the form of protocol sentences, but if we look at historically extant sentences about “obtaining” and “testing,” they are seen to contain very abstract, very compressed, and often rather unclear indications about what is essential in this “obtaining” or “testing.” A description of the type of behavior that goes with the uttering of systematic sentences is clearly out of the question. Nor do we find any indication (1) about how to describe such behavior and (2) by means of which rules one could distill what is needed for the determination of this “meaning” from a report on behavior. (1) presupposes that very complex and quite unresearched questions of behaviorism have been solved. Not even conventions are available that could tell us how to carry out the description. If there were any, then the physicalist would be justified in saying that his theses do not presuppose any solution to behavioristic questions.

From this relationship between statements about the “procedure” for obtaining and testing systematic sentences, and the sentences themselves, it becomes clear that to the statements about “the meaning of a sentence” one can apply the Duhem-Poincaré thesis, according to which a plurality of theories can be coupled with any given set of experiential data.[16] Systematic sentences about “language,” “syntax,” “deducible,” “analytic,” “provable,” “decidable,” “sequence,” “formal determinants,” “true to content,” “*gebaltfremd*,” “physical,” and “meaningless” do not constitute a class of exceptions in the sense of being uniquely decidable.

The difference between a “logical analysis” of a sentence and a behavioristic description of its functioning is not that the results of the former are irrevocable and those of the latter are not. Expressions like “content,” “form,” and so on are admittedly defined in a partly arbitrary manner, but such definitions cannot always be applied to given statements. Whether an expression has been applied as stipulated is not merely a question of stipulation but a matter of observation as well.

The general opinion that “the meaning of a statement, however it is arrived at” is “uniquely determined by a logical analysis of the procedure by which the statement was obtained and tested” seems to me to be incompatible with the Duhem-Poincaré thesis. Precisely this thesis seems to be a

good instrument against absolutism (Neurath's "pseudo-rationalism"), and as such I regard it as indispensable for empiricism.

Specification of Space and Time Coordinates Does Not Protect Us from Antiempiricism

The relationship between everyday testing methods and physicalism cannot be analyzed further unless one is prepared to delve into physicalistic conceptions of space and time. Neurath has suggested some formulations that are to allow for the difficult transitions between expressions of "trivial language" and those of an "advanced physical language" as well as to guarantee that metaphysical language is no longer possible. A crucial role is assigned to the criterion of whether a statement contains specifications of place and time. "Within the framework of unified science there are only statements that are reducible to spatio-temporal terms" (Neurath 1936c, 281). "Thus every science is similarly reduced to spatio-temporal terms, which constitute a complete basis for the construction of the protocol sentences" (ibid., p. 282). The presence of specifications of space and time is used as a criterion for the meaningfulness of a statement and thereby also as an empirical decision criterion: "One starts from observation sentences that in advance already contain measures of space and time, albeit in an imperfect manner. There will always be formulations concerning space and time beyond which one cannot go without saying something that has no meaning" (ibid., p. 298).

Let us try to find out what is meant by the expressions "space," "time," "to reduce to spatio-temporal terms," "to contain measures of time and space in advance," and to what extent specifications of space and time are a protection against metaphysics.

Everyday observation utterances do not have to contain specifications of time and space. If one supplies them with additional specifications of time and space, one does so on the basis of hypotheses. An a priori judgment to the effect that observation statements could always be integrated into the "spatio-temporal" sentential system would, however, have a taint of critical neorealism. One would thereby also have to distinguish between physical, physiological, and psychological (so-called tactilo-motor) spaces

of various kinds. Only by very tedious experiments is it possible to obtain practically testable statements about the nature of the “spaces” and “times” into which the sentences of everyday life are incorporated. The philosophical concepts of (the one and only) Space and Time (“as such”) are as inapplicable as physical spaces (for example, as classified according to some “operational” analysis à la Bridgman).

Since I assume that Neurath was aware of this, I presuppose that by “spatial and temporal specifications” he did not mean specifications concerning a certain spatio-temporal incorporation but either (1) specifications for the incorporation in some space and some time, or (2) specifications for the incorporation of statements about events into “history,” as history is understood in ordinary life. If (1) is meant, then Neurath’s definition of physicalism is too indefinite to make it possible to take a position on it, and if (2) is meant, it seems to me that specifications of space and time do not suffice to eliminate metaphysics. Many metaphysical formulations are full of specifications of space and time.

For example, the metaphysical writings of Rudolf Steiner contain a profusion of specifications of space and time and of observational terms of all kinds. The presence of these terms avails little. The metaphysical writings of Descartes, too, according to the usual interpretation given to them, contain statements that suggest how they can be reduced to statements about spatio-temporal events. The presence of general rules for this reduction may now and then be taken as an indication of a basically metaphysical attitude.

The requirement of reducibility to spatio-temporal terms is therefore of no importance for a strict empiricism; it is actually even incompatible with it. For the rest, I cannot see how one could test in practice whether the requirement can be satisfied and whether it is satisfied. That holds of every interpretation of the concept ‘to reduce’ which could be of relevance in this connection. Let us assume that Neurath would furnish rules for carrying out the test. Even so, one could not predict whether the statements that often come up for critical reviewing could be divided by Neurath’s demarcation criterion into two classes, one of which would contain those statements that at the moment are regarded as tolerably certain statements of natural science whereas the other would contain those statements that are usually deemed metaphysical.

Research Programs Instead of Theses: Models Instead of Systems

The great scientific successes of physics and its magnificent rise give it a special position from the point of view of the sociology of science. I say "sociology" because a serious history of physics needs to be undertaken from a sociological point of view. The material for such studies would be the utterances of a certain group of scientists, their instruments, the behavior of group members among themselves (collaboration, confidence, etc.), as well as their influence on the development of techniques, their position as scientists at universities, and so forth. The question of which factors have been the strongest in bringing about the current state of physics is an extremely involved one, at least if one wants something more than a list of names of these factors ("experimental method," "rejection of scholasticism," etc.) and wishes to find out which specific features of physics can be seen as symptoms of the influence of which specific factors.

The great diffusion of metaphysical materialism and its tendency to "reduce" all events to "material" or "energetic" processes exemplify the enormous effects of the successes of physics. They have no value for an empirical logic of science and theory of science. As we have already said, physicalism has quite different goals. In the first place, it is supposed to indicate the direction in which serious scientific activity moves in the nonphysical sciences, and in the second, the consolidation of all science is supposed to be made possible on the basis of the working methods in physics. The goals one sets oneself are often indecisive, and I believe that the physicalists' endeavors may be characterized by saying that they tried to catch the spirit of physical research, which they saw as particularly exemplary for "decent" (Neurath) scientific activity, in *one* formulation.

The first formulations were, however, conceived in too close dependence on a specifically physical conceptual mode. Too much was demanded of the nonphysical sciences in the direction of adjustment to physics. Today the formulations are much weaker. True, they are still of the same enormous generality—they all pertain to "all terms of the language of science"—but they nevertheless make demands only on the expressions (numerals and sign sequences) of the sciences. Nothing is said about the meanings of these signs and sign sequences. Nothing is being said about

the relation of physical sentences to the behavior of the scientists, nothing on the virtues of the style of physical treatises as a means of communication in a group of scientists. The reformulated physicalism therefore only very imperfectly realizes the original aspirations. At the same time, the physicalistic formulations have become dependent on the acceptance of highly complicated conceptions of a logical nature, namely the Carnapian doctrine of the syntax of the language of science, which today admittedly is the apogee of precision and clarity but which still is in the middle of its development. This already makes it impossible to gather empirically oriented scientists around physicalism. Acceptance of physicalism would contradict the commandment of carefulness towards general theses. On the other hand, the wide generality of a thesis has the effect that it becomes very hard to justify it and that one's efforts to do that are not related to the more specialized discussions about physically tinged questions that are carried out today in the nonphysical sciences. Such discussions are particularly frequented in the fields of biology and psychology. Programs and suggestions for research in limited areas would be natural here, rather than theses of the most general kind.

When psychologists have nothing more serious to do, they construct "systems"; they "define" psychology, isolate themselves from one another (autarchy of schools), and give outsiders the impression that scientific progress depends on finding the best psychological system. There are more than half a dozen in the behavioristic style, and several in the vein of Gestalt psychology, psychoanalysis, and philosophy of mind—to mention only the ones that are most vocally expressed. The efforts to unify psychology and all other sciences are given an unfruitful direction when one tries to find watered-down formulations that will satisfy all systems, on the basis of an analysis of the so-called fundamental concepts of the various systems. For the "fundamental concepts" are, of course, only the banners under which one school combats another school.

In fundamental opposition to this attempt is the effort to find the common focus of the various "psychologies" by unburdening the conceptual superstructure. Thereby the center of gravity is posited not in the general theses of the various schools but in their actual working methods. True, this will reduce the possibility of arriving at elegant formulations about the concepts they might have in common, for one will now have to pay at-

attention to completed singular experiments and to particular (not unnaturally generalized) results.[17]

Here I have come to an essential point concerning the evaluation of the physicalist thesis. Since the goal is a general thesis and not, say, a definite, well-delineated program, one thereby supports the above-mentioned thesis that the unity of science is to be sought in theoretical structure, namely, in auxiliary concepts and general models. In the field of psychology, physicalism one-sidedly supports the conceptual superstructure of molecular behaviorism.⁴ However highly one esteems molecular behaviorism—for example, in the form given to it by Hull⁵—by such an overt choice of sides concerning the systems of psychology no common platform for psychologists can be found.[18] One demands too much from the psychologists; one demands their acknowledgment of diffuse theses that at the most can be tolerated as research programs but that have been formulated far too absolutistically. I personally think that it is compatible with the empirical attitude to devote all one's energy to a certain research program, that is, in a certain direction. Absolutism in the choice of problems is caused by the fact that there are limits to what an individual can accomplish in science. This does not necessitate a categorical formulation of the results one hopes the program will yield. Absolutism of action in no way implies an absolutism of hypotheses.[19]

Psychologists are forced to choose a direction in their practical work. They are inclined to defend this direction against other claims by means of system-building. In my opinion, this can be explained by the following factors in the sociology of science: The number of psychologists is very small in comparison with the complexes of questions that are to be comprehended by a scientific psychology. The lack of tradition makes the position of psychologists less secure than, say, that of physicists or students of medicine. Enormous numbers of fragments of science of all kinds have been known in wide circles for a long time, but only in a completely unorganized manner in the form of "agglomerations" (Neurath: *Ballungen*) of statements that are positively crying for systematization.

In this situation and in the interest of the unity of science, it is above all necessary to fight against exaggerated systematic claims of all kinds. The inclination to present special methods of thought as absolute hampers the universal expansion of the specific sciences and thereby hampers a real unification as well.

On the Reification of Theoretical Constructs in Psychology

Philipp Frank (1917) has said that the lasting nucleus in Mach's doctrines was his feud against "the reification [*Vergötzung*, idolization] of theoretical constructions."⁶ The physicalists may be said to have carried on this feud with considerable success—insofar as they did not apply the thesis of physicalism. If the expression "theoretical concept" (*Hilfsbegriff*, auxiliary concept) is understood so widely as to include the atomic models, then I suggest speaking of "models of thought." Among models, some are always regarded as particularly fundamental. There are still textbooks and popular writings in which the impression is given that the achievement of physics is to have discovered that there *are* atoms. According to this view, physics would be annulled by the elimination of the idea of atoms. Yet these ideas are, in the physicalists' own opinion, at best instruments that allow us to find convenient formulations for sets of observation sentences.

There are models of a corresponding nature in psychology: for example, in psychoanalysis we have the concepts of the libido and the superego; these one can quietly eliminate without decreasing our knowledge. However, difficulties of formulation will result, for these auxiliary concepts have enabled Freud expediently to schematize and abbreviate observation statements. The model of "behavior" as it occurs, for example, in the publications of the molecular behaviorists, differs considerably from that of the superego. It can, however, just as easily—perhaps even more easily—be eliminated from behavioristic treatises without any loss of psychological knowledge. In consequence, the controversies between behaviorists and representatives of other schools often lose their meaning. What has been said about "behavior" holds as well, I believe, for expressions like "gestalt" in Gestalt psychology and "object" in Brunswick's psychology. The same also holds, however, for terms like *synoptic resistance* and *nerves*, used by the protagonists of the closest possible connection of psychology to physiology. One thinks that psychology is thereby already scientifically "saved." This is an encouragement for the influential brain-and-nerve mythology, whose adherents have propagated the unity of science for a long time already—in a particularly antiempirical manner.⁷ Those who are outsiders to empiricism—or who maintain that they are—often are of the opinion that the expansion of the habit of raising scientific questions is synonymous with

defending arrogant doctrines that arise from an intemperate generalization of already existing statements taken from the separate sciences, or by reification and generalization—*Vergötzung*—of the auxiliary concepts of the sciences. Diametrically opposed to this diffusion is the expansion that proceeds by in-depth analysis.

It ought to be mentioned that science cannibalism and science unification are different things. Precisely in our time psychologists, biologists, and sociologists are beginning to offer their own science as “universal,” in all possible and impossible senses. Biologists wish to see physical laws as special cases of biological laws; universal psychologism breeds new trends that are dangerous precisely because they take as their point of departure the doctrines of very successful scientific disciplines. Thus, for example, the author of *Erkenntnis und wissenschaftliches Verhalten* seems to want to see everything as questions of “ordinary observable behavior.” Tendencies toward science cannibalism are more pronounced than ever. Earlier, only physicists had much success as cannibals. Unity of science is rooted only when theoretical cross-connections (Neurath: *Querverbindungen*) entail consequences that allow for more effective prediction. The requirement can perhaps be given a less dogmatic formulation than has been done above, more in the form of a program.

Those attempts to arrive at an apparent unity of science by an enormous generalization of the field of application of certain models or theoretical concepts must be combated with the same determination as the view that the state of the sciences today makes for a chaotic spectacle. The latter opinion rests on, among other things, an overestimation and misjudgment of the role of the so-called fundamental theoretical concepts. From the fact that scientists disagree about the scope of various “fundamental concepts,” one concludes that the house of science stands on wobbly legs; because there are ten “psychologies” there is none at all.

Physicalism and Some Proposals Concerning the Technique of Discussing

I do not know to what extent Neurath and Carnap today (1938) still accept the statements of their own writings on psychology and the “language of psychology”; their publications on the subject date from the earlier phases of physicalism. For this reason I shall leave the matter here.

There are many remarks in Carnap's and Neurath's writings that lead me to assume that physicalism and the empirical decision criteria are to be understood as technical recommendations for how to proceed in a discussion. In any case, those authors will probably be prepared to let the "theses" be registered also as technical instruments for use in debate. Neurath's dictum "Physicalism is the manner in which one works for the unity of sciences today" could be used in support of this assumption. I could accept this dictum provided it were reformulated as "The reduction of terms that lay claim to a scientific status to terms that belong either to the stock of words in ordinary language or to the technical terms of physics, is one method that can be used to promote the unity of science today." (Corresponding utterances on sentences and laws might be added.) Personally, I would like to add one or two other statements of this kind, such as: the unity of science can be promoted by a reduction of sentences laying claim to a psychological or philosophical status to sentences about experimental observation conditions. This does not imply that the reduction is to be carried out once and for all, or that it must be conclusive and exhaustive; that would also contradict Neurath's recurrent emphasis on the dependence of theses—for example, physicalism—on time. The claim to finality and completion is an abortive attempt to beat the metaphysicians on their own grounds. One fears that a refutation that does not expressly condemn non-empirical formulations to eternal and unconditional separation from the field of science will be considered feeble and impotent. Someone who reacts this way is not very likely to be influenced by absolutistic versions of empirist statements either.[20]

An antimetaphysical attitude does not always protect against metaphysics, provided something more is meant by that expression than Heidegger's rhetorical style. In the interests of a radical empiricism, one ought to encourage an ametaphysical attitude, of which the antimetaphysical attitude can be no more than a preparatory stage. The opposition between "metaphysical" and "empirical," as it appears, for example, in the Vienna Circle, has been determined and clarified in the course of discussions. I believe that the views of the empiricists who have taken part in these discussions differ from those of their adversaries in this essential respect: when points of view are at war with one another, the empiricists try to find a suitable point of departure for further discussion by means of trivial, everyday

concepts and models of thought taken from ordinary language, whereas the metaphysicians remain stuck in the nontrivial, in the depths of thought, and not merely in “speculation” but in the “unconditional” as well. Above, I have discussed one type of philosophy of the unconditional: that of “the logical” as “the formal,” “that which comes before all substantial (scientifically professional) reflection.” When the discussion concerns, for example, the necessary conditions for scientific linguistic communication, or protocol sentences of the strictest kind, then it would seem that serious differences of opinion could be overcome by taking a step backward—that is to say: not in the direction of a beyond-the-ultimate, of a “meta-beyond,” but in the direction of the trivial. I have the feeling that the differences between the antimetaphysical and the ametaphysical attitudes are in part of this kind. Insofar as my own standpoint does not coincide with the standpoint of the physicalists as represented here, I would therefore choose to call it trivialism.[21]

The Encyclopedia Project—Its Significance for the Empirical Movement

The indications given by Carnap and Neurath that physicalism and the empirical criterion are not to be understood as doctrines but as general recommendations about techniques of discussion and methods, are underscored by their pronouncements on the encyclopedia project.⁸ The project of an encyclopedia based on Neurath's principles seems to be the logical development of the ametaphysical empirical movement. One promotes the positive elements in empiricism precisely by organizing the efforts of those who want to work in the service of the empirical movement and through attempts to build a common language; empiricism in the sense of doctrines with a philosophical tinge is forced back.

The distinction made between “system” and “model” in Neurath's publications about the envisaged encyclopedia signals a renunciation of attempts to meet antiempirical movements on their own grounds and with their own weapons. “System” is rejected and “model” placed in the foreground. It is hopeless to try to get empirical research workers to cooperate on a system, but it is not hopeless to call on them to cooperate toward a limited, qualified, and elastic unification.

For an encyclopedia as envisaged by Neurath, the distinction between decision criteria as doctrines and decision criteria as recommendations for a technique of discussion and exposition acquires the following meaning: decision criteria in the latter sense prevent the occurrence of a third world of statements in addition to the scientific statements of the encyclopedia and the representational rules of the encyclopedia (that is, the rules for the scientific statements in it). In other words, one prevents theoretical or “auxiliary concepts” (in Frank’s sense) of the encyclopedic exposition from being taken as absolutes and ending up as the superstructure of these about the encyclopedia itself.[22]

The difference between decision criteria that have an unlimited range and those whose application is limited to certain discussions is essential to the encyclopedia. The connection between actual concrete problems of exposition in certain fields—for example, that of “the compatibility of behaviorist and psychoanalytical sentences”—now becomes conspicuous. The recommendations concerning discussion and exposition will become more pliable when the final court of appeal for their formulation and validity range is constituted by the particular problems of the field in question. When they immediately are elevated to the status of rules with universal validity, it becomes more difficult to change them according to the situation in a given area of debate: they take on a value of their own, and an “idolization of auxiliary concepts” (Frank) is hard to avoid.

Rules for discussion and exposition are often postulated indiscriminately for large areas of discussion and with no clear explanation of the purposes to which they owe their existence. The so-called psychology in physicalism has convinced me that such rules lead to violation and oversimplification of the factual situation in those areas. The problems of psychology and the many valuable attempts to find compatible solutions for them are so complicated that any reduction of their terms must take place from the inside, with attention given to each discipline and to each attempt.

More than once I have characterized Neurath’s idea of an encyclopedia as a further development of the empirical movement. The discussions about physicalism and protocol sentences may have appealed to philosophers, but the encyclopedia project appeals to a wide circle of empiricists who personally are disinclined to take a position on theses of the most general kind, such as those on physicalism or decision criteria. As Carnap and

Neurath have emphasized, it is very possible to work on the encyclopedia without assuming such theses. What is revolutionary about the encyclopedia project is—partly at least—that one aspires to and also assumes the possibility of a more intimate and many-sided cooperation than has been realized in any collective scientific labor hitherto.

There is one exception to this: work that has been achieved by men subscribing to the same ideology. The encyclopedia of the so-called Encyclopedists of the eighteenth century was primarily the work of an ideologically homogeneous group. The plurality of problem types in present-day science already makes it improbable that a reliable encyclopedia could come into being if the task were left to such a group—even advanced methods of collaboration would not suffice. Neither a unification based on a common ideology nor one based on an “upward identification” (as, for example, in the institution of a strong *fürher*) would do it.

In the opinion of the new encyclopedists, the required cooperation can, however, be achieved as a natural evolution of tendencies already discernible within the special sciences. The scientific behavior that is displayed in the investigation of objects belonging to more than one science shows that the special sciences are more strongly related than the conceptual apparatus they have in common might make one think. When a biologist, a physicist, or a worker in the Zeiss lens factories tests an observation statement by means of a microscope, then already the manner in which he positions the instrument on his desk shows that he has some knowledge of a psychological kind—about the distribution of light and shadow, psychologically adequate working methods, and so on. The results he obtains in testing a nonpsychological statement will depend on whether his positioning of the microscope on the desk was compatible with psychological-physiological knowledge.

Opinions may differ as to why the conceptual apparatuses of the various sciences offer so little information about this kind of unity. It is so little known that one is still inclined to assume, for example, that a physicist regards objects merely as heaps of electrons and protons, and that a psychologist sees them only under the aspect of stimulation of the sense organs. The conceptual apparatus of a science is, in fact, treated as foreign to ordinary language as well as to nonverbal behavior (for example, the manipulation of instruments). History teaches us that such a separation of science from

everyday thought and language will in general be exploited ideologically in directions that run counter to the empirical attitude. As Carnap has emphasized, the significance for the encyclopedia of a logical investigation of the sciences is precisely that, through formalization and unification of the linguistic instruments, terms can be introduced in such a way that this separation becomes absurd.

The unification of the sciences may seem to be a relatively clear-cut task, provided one does not try to tackle the problems of border areas and interconnections (as, say, those between biology and physics). However, a task of this kind is closely related to that of promoting the empirical movement. The difficulties are so great that attempts to bridge them end up by compromising with empiricism. At this delicate point the "systems" are brought into action, so that one feigns a unification of the sciences or else subsumes all of them under an external authority such as philosophy or religion.[23] One finds a higher "identity" that creates "order." As long as the border areas of the sciences are not cultivated with the utmost care, they are dominated by the "autistic mode of thought" (Bleuler 1921)⁹; in between the various specialties, idyllic sanctuaries remain where the tired scientist can nurse his private garden of articles of faith, well protected against the exacting norms he assumes for work in his own special field. Such sanctuaries are, for example, provided today by the "philosophical consequences" that are being drawn from the uncertainty relation, but other problems also offer the opportunity for particularly lovely weekend trips.

The borderline fields are so large that the few who cultivate them cannot be expected to be as reliable and as free from airy speculation as persons working elsewhere. The heaviest battles between empirical and antiempirical tendencies are fought precisely in these fields. Because the questions at stake are so hard to survey, no weapon will promote empiricism in each and every case. Decision criteria and theses like those of physicalism presuppose that the Good and the Bad are as distinct as fairy tales would make them. The existence of a formulation that will unite the empiricists of one area of debate does not guarantee that the same formulation will not encourage pure speculation if applied to other fields. Although there can be no amulet that will protect against antiempirical tendencies, an encyclopedia seems to me the best guarantee for an adequate expression of the empir-

ical attitude. Neurath's encyclopedia as planned is intended to stress borderline questions and questions of cross-connections between the sciences, which greatly enhances its importance for the empirical movement. It would be a mistake to hope for solutions—or suggestions for solutions—to border-area problems. The position of empiricism can be strengthened without such solutions; for empiricism is strengthened already by the evidence we have that one can get by in a border area with those modes of inquiry that have proved scientifically valuable in other fields. The proviso that future work would probably lead to modifications of the formulations of the problems also strengthens it—albeit not in the eyes of those who already are in the possession of “solutions.”

The exponents of the various psychological schools are driven by competition in the market: they vie independently of one another to construct elegant solutions to all the “profound” problems so as to demonstrate the unlimited reach of their own habitual ways of construing scientific questions and the unimportance of all others. It is hard to suppress the belief that even a loose cooperation would bring about a considerable unification of the way of defining the problems in psychology. A first step in that direction will be taken as soon as claims to universality and autarchic demonstrations in the form of theses or so-called solutions are abolished in favor of research programs. Psychoanalysis, Gestalt psychology, individual psychology, *Sexualökonomie*, and behaviorism, to mention only a few, all boast of formulations that are supposed to prove the autarchy of their particular phrasing of problems.

The disappearance of universal solutions would further the empirical movement in two ways: in the first place, by eliminating pseudoknowledge and concentrating attention on practically solvable questions through cross-connections between the schools, and in the second, by completely changing psychology's appearance in the eyes of those who are not professional psychologists. For nonprofessionals, it is hard to distinguish the serious activities of psychologists from the more cheerful ones. When, for instance, one takes the center of gravity of Freud's contributions to lie in his postwar publications and that of behaviorism to reside in its “counterformulations” (*Abwehrformulierungen*) against misuse of introspection, psychology dissolves into a chaos of general and mutually contradictory doctrines. Since these doctrines have a degree of generality that

hardly is inferior to that of the doctrines of speculative philosophy, and since the critical spectator can discern no differences pertaining to the reference material, the impression is created that the situation in psychology is very much worse than it in fact is. That makes it even more tempting to give oneself over to speculation and to pay but little attention to the teachings of professional psychologists. So, whoever wants to promote empiricism clearly takes on a serious task. He must, however, choose a line of attack that is genuinely more practical than those chosen by earlier, philosophically minded positivists and empiricists. He will often have to renounce the theoretical superstructure of his activity or else change it from the bottom up.[24] From the task of unifying science by promoting work on the border questions and clarifying cross-connections, yet another type of task comes to the fore: that of furthering the expansion of scientific modes of inquiry. This is not really a distinct kind of task but rather is contained in the ones just mentioned. Already, in the attempt to unify the language of science—more or less in the way Carnap sees this task—we can see the appearance of problems that have not yet been formulated very clearly and that deserve just as careful a treatment as any problem in wave mechanics.

Summary

Empiricism can be promoted today by unburdening it theoretically. This means:

1. Promotion of teamwork in fields in which there is no tradition of that kind. The main goal is to attain a homogeneous degree of reliability (and precision) of formulations in the total area covered by the team. The intellectual standards that an individual assumes within his own specialty should be extended to the cross-connections with other specialties.
2. A broad and reliable treatment of problems arising from attempts to unify large areas through teamwork. Cultivation of conceptual analysis and of the history and sociology of science. Formulation of recommendations for the unification of modes of discussion and exposition.
3. Formulation of recommendations for sharpening the linguistic instruments of certain groups. Analysis of the consequences of adopting a given linguistic model. A study of the syntactical problems of science.

4. Fight against autistic thought. Furthering of the investigation of scientific behavior as one type of "complex behavior."
5. Active opposition to the inclination to impede the expansion of scientific inquiry by relying on insufficiently justified systems. Opposition to all utterances that implicitly or explicitly take some formulation of empiricism as final or closed. This recommendation is a consequence of my feeling that the more adamant aspect of empiricism is a general attitude, rather than linguistic observance.

Appendix I: Added in 1956: Notes and Comments on the Paper Written Between 1937 and 1939

[1] Here so-called definitions of empiricism are implicitly criticized. These definitions have a solid basis in the philosophical terminological tradition. I endeavored to change the terminology in such a manner that so-called empirist philosophers could still be called by that name, whereas the usual definitions would eliminate them. This goes for the normative as well as the descriptive definitions. In this connection I assumed that I had found the most important and most valuable elements of empirist philosophy and that precisely these elements went unmentioned in the usual definitions of empiricism. This was, of course, a rather daring assumption.

[2] In the text "empiricists" and "antiempiricists" are spoken of as if a good normative definition of empiricism were already at hand. Since I did not accept the current definitions, the reader may well ask in which sense I used this expression. This is unfortunately not made clear in the treatise. I believe I would be prepared to endorse the following.

Locke, Berkeley, Hume, and Mach, among others, may be characterized as representatives of empiricist philosophy. The most important and most valuable contribution of these and other empirical philosophers does not consist in their explicitly formulated theses, and most definitely not in those formulations by which their doctrines are rendered in philosophical lexicons and textbooks. Rather, it consists in their efforts for the empirical movement, deriving from the empirical attitude.

By "empirical movement" I mean here an expansion of scientific research whereby new fields are constantly made objects of research. Research has a scientific character whenever a continuous intersubjective revision is

made possible and carried out and when one systematically seeks to test prejudices; furthermore, when knowledge of the object is ascribed an intrinsic value. Thereby an indication has been given as to what is meant by “empirical movement” and “scientific character.” The empirical attitude from which the empirical movement springs forth will not be further defined. Nor will it be said what is meant by “metaphysics.” As a first attempt at a definition the following might be useful: a nontestable philosophical standpoint that is defended by an appeal to intuition or to a priori points of view.

In statements in which the term *metaphysical* is used dyslogistically—and this is almost everywhere the case—its replacement by *antiempirical* will not cause serious difficulties. “The metaphysical movement”—an expression admittedly not in use—could be used as a designation for the always recurring tendency to object to scientific research with an “Up to here, and no further!” Thereby one attempts to demarcate problem areas where Hume’s “disinterested attitude” presumably cannot gain ground, or to contest the continuity between all areas of research, appealing to an allegedly separate philosophical sphere of knowledge.¹⁰

It does not seem advisable to use the terms *metaphysics* and *metaphysical* in this sense. On the other hand, it does seem to me desirable to introduce the term *antiempirical* to standpoints that encumber the empirical movement or threaten to thwart it.

In this treatise, I have tried to explain that one cannot set up any useful criteria for a statement’s being or not being compatible with the empirical attitude; furthermore, that it is possible to carry out a philosophical discussion in such a way that it becomes easier to discover and correct antiempirical theses and tendencies, if any.

Against my attempt to reinterpret some of Neurath’s, Carnap’s, and Hempel’s theses as rules of thumb for scientific discussions, one might object that these theses were not meant as mere rules for debate but as philosophical statements. This objection, however, is justified only when one employs the terms *discussion* and *debate* in another sense than that in which I use them. To characterize what I mean, the word *dialectic* might be preferable, whereby one will have to distinguish between eristics (rhetoric) and dialectics, between sophistics and philosophical investigation, roughly in the way that Aristotle and Plato did. In my terminology the debate or di-

alectic constitutes a part of the scientific process, namely, a systematic intersubjective verbal communication whereby misunderstandings are eliminated and the various standpoints undergo the necessary precision¹¹ (*Präzisierung*), so that recommendations for research programs may be subjected to testing. This is not meant as a normative definition but rather as an approximation of a real definition. A normative definition I would formulate in such a way that rules for thematic (objective, to-the-point, *sachliche*) discussion would occur as the definiens.

Understood in this way, the philosophical dialectic (*dialektikê*) seems to me to be today a new edition, of immediate interest, of the classical dialogue (*dialogon*), insofar as this was not merely a literary form but a method for the joint labor of several philosophers. Rules for this kind of dialectical discussion are of high scientific and philosophical import. That is to say, when one reinterprets certain theses as recommendations for such rules, no devaluation of these theses is involved.

[3] In 1938 I was hardly justified in assuming that the direction of this treatise corresponded to that of Carnap, Frank, or Neurath. When I, nevertheless, voiced this assumption, it was more as a hope or a wish than as a well-founded conviction. The conclusions of the treatise contradict, for example, the plan of the *Encyclopedia of Unified Science*.

[4] The reference to *future* research is of the essence. As a social reformer, Neurath was interested in making use of the scientific achievements that were already on record. What mattered to me was, above all, to emphasize our ignorance and to motivate the efforts of the empirical movement in that way. This was the main reason for my definite rejection of attempts to construct an empirist philosophical platform in the form of general theses.

[5] The following are examples of demarcation criteria that do not satisfy the conditions formulated in thesis 1.

1. Incompatible with the empirical attitude are those and only those standpoints that presuppose other sources of knowledge than experience.
2. Only those standpoints that can be corroborated by means of sensory experience are compatible with the empirical attitude.

3. Only those standpoints that presuppose the existence of a priori synthetic statements are incompatible with the empirical attitude.
4. It is incompatible with the empirical attitude to accept unverifiable statements.

If these or similar theses were tenable, I would not regard the empirical attitude as something valuable but as something harmful. If everyone who rejects the “empirical attitude” as characterized in these theses is to be considered a metaphysician, then I must be reckoned with the metaphysicians.

[6] By “empirical movement,” I understand an expansion of the empirical attitude, so that it can continually take effect in new fields, and with increasing consistency and clarity. Such an expansion has been occurring, in fact, since the time of Ionian philosophy, although in certain periods one has to register setbacks. In my small publication *Tenkningens utvikling* (The development of thinking) I made this point of view the cornerstone, although it could hardly be applied to recent years. An introduction to the history of philosophy according to this point of view would require serious changes in the usual arrangement of the material. Only a professional historian would be able to carry out such an undertaking in a satisfactory manner. An improved version of “The development of thinking”—under the title “The development of research,” perhaps—might on the other hand be a stimulant, especially for foundations research in the separate sciences and for the investigation of the relation between philosophy and the separate sciences. (Of course, such an exposition ought not to be obligatory for all students.)

[7] In the circle around Moritz Schlick (after 1938) and in seminars led by him and Friedrich Waismann (now at Oxford), psychologists were sometimes present. The participants were occupied with the “clarification” of psychological sentences, seeking to find and formulate their “meaning.” It thereby turned out that this “meaning” often differed from what the psychologists thought it was, and in many cases no meaning was found at all. These sentences were deemed “meaningless,” although those who used them had for years been of the opinion that they had uttered meaningful locutions. These discoveries were brought about thanks to the criterion of meaning used in logical positivism when the latter was still identical with the Vienna Circle.

My sympathy was with the psychologists, especially when the “clarification” culminated in a decision about which problems within certain sub-disciplines of psychology were to be regarded as pseudo-problems and which were not. It was not easy for the psychologists to refute these charges, which they often felt were unjust. Meanwhile, they used a form of indirect defense that seemed to me effective: they challenged the philosophers to familiarize themselves more closely with psychology and to get to know the research situation that they, the psychologists, tried to master in their investigations and expositions. They held that the clarification then would lead to other and more fruitful results. The philosophical insight of the psychologists was, however, not sufficient to enable them to influence the work in the seminars to any noticeable extent.

In this treatise, I tried to take the psychologists’ demands and similar demands from other research workers into account without throwing overboard what is valuable in these clarification endeavors. In the case of the psychologists, the clarification process could be approximately as follows: When a participant makes a statement *A*, whereas someone else states non-*A*, and it is unclear in what the difference consists, then both participants are to indicate the conditions—which must be possible to realize in a research process—under which they would regard *A* as verified (or corroborated) and responses falsified (weakened). If both were of the opinion that there are no such conditions, then this would count as an indication that neither a continuation of the discussion nor additional research would contribute to the elimination of the verbal difference of opinion between them. At the same time, it would count as an indication that their verbal disagreement is not connected with any more-than-verbal (*sachliche*) difference of opinion.

The spokesman for a philosophical clarification would, then, act as a broker and middleman, not as a judge. He would recommend lines for an effective discussion, lines that would have to differ according to conditions. Instead of pragmatic, logical empirist, and operationalist meaning criteria, series of discussion modes for various situations would emerge. A spokesman for philosophical clarification can very well hold opinions as to the question of cognitive meaning, or about the question of the relationship between cognitive meaning and testability. He should not, however, bring his own opinions about these uncommonly abstract and difficult questions into a clarification task of the said type. Such a task can be carried out with

more success on the basis of simpler and more easily tested premises. The aim is to unburden the task philosophically and to tone down the pretensions connected with it. If that does not happen, then one clearly disguises the fact that more or less expedient rules for discussion and exposition are quite something else than general for cognitive meaning. Research is applied only where one sees gaps in our knowledge.

[8] I have held physicalism in esteem as an important and valuable trend because in spite of its deficiencies it gave expression to the wish to transfer the humble respect of the student of nature for the object of his research, and his readiness to study this object for its own sake, to other fields of learning. In philosophy, the manner in which one approaches one's field of research very often appeared to me to be emotional and sometimes even plainly hysterical, and furthermore ideologically suggestive and not seriously meant. This holds in particular for discussions about the concept of truth.

The uncommonly abstract and general theses of philosophy seemed to me to indicate a deficiency of interest in one's object of research. One has not seriously thought about the possibility of exceptions or about conditions for testing one's statements, nor about the exigencies of an impartial discussion. In this respect, too, the discussion about the concept of truth appeared to me to be the prototype of philosophical working habits.

[9] The logical empiricists showed great enthusiasm for research and great disgust for the lack of clarity demonstrated by the philosophical schools. When they nevertheless could believe in physicalism and in meaning criteria in the form of theses, then this seemed to me to issue from an uncritical attitude with respect to a certain field, namely, that of language. The logical empiricists intended to stick to the logical aspect of language. When one looks more closely, however, it turns out that they made assumptions about uses of language and not about meaning. Here empirical (not logical) research would have been appropriate. I believed that one could purge logical empiricism of antiempirical tendencies by a program for purely empirical studies of linguistic usage. Precisely such research, without further intentions, seemed to me necessary (1) to counterbalance a form of "logical analysis" that strictly speaking was not logical, and (2) to create the preconditions for the construction of a system of exact concepts intended to cover all empirical fields of importance in the philosophical discussion.

This program was frequently met with distrust or rejected as "psychol-

ogism." This seemed to me to confirm that an essential weakness of the empirist philosophy of that period consisted in its neglecting to promote empirical research in the area of semantics.

Through later contributions, mainly by Charles W. Morris, empirical-semantic problems began to play a greater role in logical empiricism. However, interest in these new areas of research went only as far as covering them under an inspiring terminology. The classifications and statements in Morris's *Signs, Language and Behavior* could be tested only by empirical research; such research was, however, not encouraged. One let oneself be dazzled by the terminology so that the driving forces behind a patient investigation of accurately delineated areas of observation became even weaker than before the book's appearance. The contrast between the demands that were made on concept formation in the exact sciences on the one hand and those in semantics and related sciences on the other seemed to me even more drastic than before. Later on, Charles L. Stevenson's *Language and Ethics* played a similar role; empirical questions and statements were confounded with results issuing from empirical research.

[10] That Carnap was not clear enough on this point is a daring statement that I should have documented. I shall here try to produce that documentation, without being able to say with certainty whether the question treated here was already decisively important to me at the moment of writing the treatise.

A thesis in Carnap's "Testability and meaning" (1936a: 464) may be rendered as follows:

For all reasonable interpretations of T_0, T_1, \dots, T_n , T_0 is a cognitive heteronym of each of the statements T_1, T_2, \dots, T_n .

T_0 stands for "On May 6, 1935, at 4 P.M., there is a round black table in my room." T_1 is "If on May . . . somebody is in my room and looks in such and such direction, he has visual perception of such and such a kind." For T_2, \dots, T_n Carnap indicates similar wordings.

It seems reasonable to interpret the expression "cognitive heteronym" in such a way that Carnap's thesis holds. The proof he offers for this thesis, however, seems to me unclear or untenable. Carnap says that T_1 "is a universal implication sentence: $(x) [(x \text{ is } \dots \text{ in my room and looks } \dots) \rightarrow (x \text{ perceives } \dots)]$," which we may abbreviate in this way:

$$(1) (x) [P(x) \rightarrow Q(x)]$$

This statement, however, entails the very improbable assumption that the sign \rightarrow in a given logical calculus somehow equals “if . . . then.” Moreover, according to Carnap, this relation between \rightarrow and “if . . . then,” which is not further elucidated, must enable us to “abbreviate” T_1 as (1) without further ado. Which empirical science guarantees that there is such a relationship? Which tested or at least testable hypotheses are available bearing on the relationship between \rightarrow and “if . . . then”? Carnap seems to assume that he only carries out logical operations (a logical analysis) on his way from T_1 to (1). Meanwhile, he gives his opinion on empirical-semantic questions. His demonstration has a logical air; that it belongs to a not-yet-available empirical science is obscured.

Starting from (1) Carnap attempts to prove, by means of calculatory rules, that (1) is true even if $P(x)$ is false, that is, when it is not the case that “ x is . . . in my room and looks. . . .” His “proof” consists in, among other things, reformulating (1) as

$$(2) (x) [P(x) \Delta Q(x)]$$

This transformation implicitly presupposes the validity of a definition of the type $p \rightarrow q =_{\Delta} D \neg p \vee q$. Thereby the step from (1) to (2) is presented as a logical step and not as an empirically relevant operation. However, the question of whether statements of the type “if p , then q ” are in fact cognitive synonyms of sentences of the type “not- p or q ” is of the greatest importance for the conclusions he draws. If the expressions “not,” “or,” and “if-then” were not used in the same way as in the calculus chosen by Carnap, then his conclusions would be rendered invalid. Who, however, has studied the factual use of these expressions?¹²

The next step in Carnap’s argumentation consists in the observation that both T_0 and $P(x)$ might be false, namely in case there is neither a black table nor an observer in my room. Since in that case (1) is true but T_0 is false, (1) and T_0 cannot be synonymous; hence they are heteronyms. The same argumentation is applied to T_2, \dots, T_n .

Carnap seems to feel no need for empirical-semantic research to find out in which sense statements like T_0 and T_1 are used in the circles to which

all this is addressed. On the contrary, the fact that he explicitly presents his argument in a chain of five or more steps gives the impression that he would interpret reservations about his argument as doubts about the validity of his deductions, rather than about his empirical presuppositions. He renders the purely logical steps in the proof very carefully, but he does not mention the empirical-semantic presuppositions. That is, he seems to have expected logical-analytical objections rather than empirical objections. In my opinion, however, one has much more reason to raise empirically relevant criticism here than criticism that has no empirical relevance. It would be appropriate among other things to investigate the relationship between the use of the expression “if-then” in ordinary language on the one hand and in logical calculi on the other. Carnap’s argumentation is built up in such a way that he does not in my opinion make it clear that T_0 cannot be reduced to T_1 .

By the way, I do not believe that T_1 can or could pass for a reasonable interpretation of T_0 . That was perhaps not even the case among the representatives of the “usual positivist opinion.” This is only an assumption, however. A thorough argumentation would take us deep into questions of the history of philosophy and empirical semantics.

The translation from the ordinary language of T_0 and T_1 to the symbolic language of (1) and back would take place in a series of steps. In my lectures on symbolic logic, I have tried to formulate these steps explicitly.

[11] This statement and the whole paragraph in which it occurs are a good example of how an individual C can fare who wants to pull an individual B out of the swamp into which he has sunk in his eagerness to rescue an individual A .

I (individual C) wanted to rescue the logical empiricists (B) from the antiempiricism in which they had ensnared themselves in their attempts to free human beings (A) from metaphysics—and what is the result? It seems that in the heat of the moment I have sometimes offered unusually comprehensive and indefinite statements without sufficient justification—merely to prevent the logical empiricists from delivering general and unjustified statements in their eagerness to free us from the uncommonly comprehensive, indefinite, and unjustified statements of the metaphysicians.

Maybe I wanted to point out that the conditions for a “not complete re-

ducibility” were so weak and so loosely connected with offhand interpretation and with empirical testing that, say, the statement in Descartes’s mechanistic metaphysics would have to be assessed as “incompletely reducible” to “physicalist language” (in Carnap’s wide sense of this term), rather than as completely irreducible. In other words, the conditions for incomplete reducibility do not amount to a refuge from metaphysics (in the derogatory meaning the word has in Carnap’s text).

[12] The act of replacing a formulation (a hypothesis) by a more precise¹³ one I call insular (as against “continental”) when it makes no difference to the hypothesis, because too many different interpretation possibilities remain. If, for example, logs whose diameters are to be measured are put into a thermometer so that the temperature differences in the forest cannot influence the length of the steel measuring rod, or if one pays attention to the thermodynamic theory of the extension of bodies when formulating hypotheses about the relation between the diameter and the age of logs, then we are concerned with insular acts of producing more precise formulations. For the sources of error with which one has to reckon as a consequence of such things as the degree to which the form of the cut deviates from a circle, are so great that the variations in length of the measuring rod become relatively small.

If symbolic logic is used to elucidate a thesis as indefinite as the one we discussed in comment 10 above, then the result is likely to be merely an insular reformation unless attention is paid to empirical semantics as well.

[13] This and the next section are taken from a small, unpublished paper, “Physikalismus und radikaler Empirismus” (Physicalism and radical empiricism; 1937). Neurath advised against publication with the argument that it in part contains attacks on standpoints that he and Carnap have already abolished.

The expression “radical empiricism” is meant to designate a point of view that logical empiricism would probably have to develop after having passed from an antimetaphysical to an ametaphysical stage. In agreement with the opinion that the essential contribution of logical empiricism in philosophy (that is to say, apart from pure logic) consists in its having created a possible basis for discussion, I have understood radical empiricism as a kind of common platform for effective philosophical discussion. Thus I wrote in “Physikalismus und radikaler Empirismus”:

I am interested in “radical empiricism” as an arena for discussions about foundations research, as an instrument for analyzing the historically given philosophical and metaphysical questions. When one enters such an arena one cannot at the same time take along all one’s favorite theses. It will be hard to find anyone who is prepared to play chess with me if I have already chosen a position such that my adversary, if he is not of a quite exceptional stature, cannot avoid a checkmate within three or four moves. The invitation from the physicalists is of this kind. . . . If “physical” is to be eliminated, then “psychical” should be, too. If “spiritual” is abolished, then “material” should be abolished as well.

[14] If the philosopher’s role consists in something else than to rectify the special sciences, or to erect an addition to existing sciences, then a person who wants to do philosophy, that is, logical analysis, should keep away from psychologism.

In the text I have tried to show that Carnap and Neurath practice psychology under false colors, and that I cannot personally be accused of the same fault. I use the basic concept ‘behavior’ in a sense that is neutral with respect to the “mental-corporeal” contrariety. That form of behaviorism that does not rely on corporeal support I have called radical behaviorism. The creed that statements of behavior are more easily tested when one tries to connect them with psychology is founded on unacceptable philosophical assumptions: “[a]n accompanying feature is a medico-pharmacological philosophy of drawers—a philosophy that assumes that no object is really scientific unless it can be stored as a compound or artifact, like for instance layers of nerve and cortex tissue” (Naess 1937).

[15] The argumentation pertaining to this quotation may be easier to understand if one starts with the following analogous sentence:

The average income of authors may be simply and uniquely determined by addition of their individual incomes and division of the sum by their number.

When the required material has already been collected and processed, this sentence gives us essential information. However, when we are not in possession of any material, or when the statistical value of our observations has not yet been examined, this sentence is of no help in getting us started on the problem.

Here “the procedure we have used to obtain [the sentence in question]

and to test it" is the processed observation material; "the logical analysis" is the calculation, carried out according to certain arithmetical rules. This analogy enhances what I wanted to emphasize in the text: if we want to test statements, we shall need the empirical sciences, so as to procure reliable material about how these sentences are used and about their connection with behavior. The older as well as the more recent meaning criteria of logical empiricism and of operationalism seem to presuppose a high degree of intuitive knowledge in the field of semantics, and they also presuppose that intentions can easily be communicated.

[16] I have tried to treat this point in the discussion of occurrence analysis in greater detail in *Interpretation and Preciseness* (1953 [SWAN I]). The variety of meaning hypotheses that fit a given material on occurrences excludes all arguments that presuppose a single cognitive meaning or only a limited number of cognitive meanings.

[17] In my paper "Notes on the foundation of psychology as a science" (1948: 25 ff.), I have discussed the relation between theory and practice in research. In the terminology introduced in that paper, one can say that the *Encyclopedia of Unified Science* was supposed to render extant psychological theories partly as research programs and partly as theories with a well-defined "primary predictional field." This means, among other things, that theories should be formulated in such a manner that their limitations come clearly to the fore. On the other hand, differences of opinion would in many cases disappear, for they often arise precisely because theories are ascribed a validity far beyond their primary predictional field.

Since concept formation depends on the very theories in which the concepts are to be applied, a better delineation of the claims of a given theory would also reduce the number of concepts that occur in several theories. The common psychological conceptual structure is pushed into the background. One then will no longer have a need for many of the very general concepts with which one tries to characterize the various psychological schools today.

[18] What is said here agrees with my objections to meaning criteria that are formulated in the form of theses and therefore lead to infringements on psychology, that is, to judgments on which psychological statements are meaningful and which are not (see comment 7). The encyclopedist ought to take the role of middleman between psychological theoreticians, not that of a judge.

[19] When research is understood as a type of human activity, this sentence can be restated as follows: "Absolutism of action does not justify absolutism concerning hypotheses."

The investigator continually has to act on the basis of priority lists resting on conclusions drawn from dubious *pro-aut-contra* deliberations. The time and the energy he has at his disposal are limited; the field of research is infinite in all directions. If he wants to obtain results, he will have to concentrate on definite tasks. This often requires a certain amount of painful resignation, which may lead him to overestimate the area he has chosen and the significance of his results. However, the fact that a certain investigator has made an absolute (final, unconditional) choice does not justify utterances about his choice being the only adequate one in the research situation in question.

[20] In this appendix, physicalism is interpreted as a recommendation about techniques of discussion designed to prove the unity of science. The formulations that are offered in this section are, however, much too pretentious to serve as such recommendations. My intention was to underscore the fact that physicalist, operationalist, and related endeavors can contribute to the advancement of the unity of science. It was not my intention to discuss the problem areas within which they might turn out to be suitable as means of encyclopedic exposition, or the degree to which they might be suitable.

[21] The term *trivialism* is intended to underscore the fact that the seemingly fundamental oppositions between philosophical or scientific schools can often be elucidated only if one chooses a nonphilosophical, non-technical point of departure. In an (unpublished) paraphrase of Nietzsche, I once wrote: "Long live Trivialism!! Physicalism = the lab assistant's absolutism. If physicalism is rendered in a humanized fashion, out of its ashes mighty Trivialism arises—the cult of trivial linguistic habits, trivial concept formation, and trivial modes of behavior."

[22] The encyclopedia should, I think, primarily contain a survey of human knowledge; that is, it should above all describe the best corroborated hypotheses. Second, it ought to give information about research programs and offer prognoses about the further development of research. I believe Neurath shared this opinion.

Should philosophy be allotted a place of its own in the encyclopedia?

When one understands the concept of philosophy the way I have suggested on page 4 of my *Filosofiens historie* (History of philosophy, volumes 1 and 2, 1980), then philosophy can hardly be said to contain corroborated hypotheses—at least if the “corroboration” has to satisfy requirements of some substance. Of course, philosophical problems and assumptions could be taken into consideration in the description of research programs and research prognoses.

Neurath’s attitude to philosophy and my own basically agreed on this point. However, when the practical work on the encyclopedia was about to begin, differences of opinion surfaced. A long series of statements that Neurath ranked with the scientific truths (*Realsätze*) of the encyclopedia ought, in my opinion, to be regarded as philosophical statements, or else they must be reformulated and given the form of nonphilosophical research programs. It seemed to me that Neurath wanted to construct the encyclopedia as a comprehensive exposition of logical-empirist philosophy (see his various contributions to the encyclopedia).

[23] By philosophy, something else is meant here than in my later writings. Here “philosophy” means about the same as “antiempirist philosophy.” This corresponds to the linguistic usage of the Vienna Circle, whose members revolted against both of the mighty trends that at that time asserted themselves in Europe: German metaphysics (Heidegger, Hartmann, Spranger, and others) and Catholic theology and metaphysics. They admired the sagacity and consistency of the spokesmen of Catholicism, but they opposed their postulate about the existence of truths “above” science. They regarded German metaphysics as a danger for clear thought and conscientious research, in fact, for all mental life. In the politico-cultural respect they enjoyed, both trends outweighed empirical philosophy, and this seems to have contributed to the use of “philosophy” as a synonym for “antiempirical philosophy.” In Anglo-Saxon countries, where the position of empirist philosophy is far stronger, this linguistic usage seems less natural.

[24] Here and elsewhere I emphasize that when one wants to further the empirical movement, one ought to proceed in a practical manner. The word *practical* is here used in the sense given to it in pragmatist and voluntarist philosophy. Research is seen as a process in which certain actions, in particular those by which hypotheses are tested, play a decisive role. I

wanted to express that such actions are more valuable for science than is linguistic behavior without strong links with these actions. Meaning criteria, operationalistic theses, and physicalism are examples of the latter behavior. Discussion programs and research programs are, however, closely connected with the process of research.

The theoretical elaboration of the form of empiricism formulated by the logical empiricists ought to entail the abolition of antimetaphysical counterformulations. Empiricism ought, in my view, to be ametaphysical. I wanted to prevent Neurath's politico-cultural struggle with the German metaphysicians from having philosophical consequences. For this might be to the detriment of empiricism—at least in the long run.

APPENDIX II: Remarks on the Empirical Movement

A thorough investigation of an object seems to require that the investigator be, at least at the start, connected with the object by strong interests of a biological, social, or metaphysical kind—to use a triple classification taken from P. W. Zappfe (1941: 62).¹⁴

The history of geometry offers good examples of the significance of these three kinds of interest, not least the metaphysical-religious interest. In the sect of the Pythagoreans, the study of geometrical figures was often seen as the main task of its members. Thereby this study was made into a religious profession. Later, geometry was detached from metaphysical problems, although the latter continued to play a role as sources of inspiration. For the development of geometry it was now important that Greek mathematicians could devote themselves entirely to the study of geometrical relations without concern for the practical applicability of their discoveries. This field of research had acquired a value of its own.

The history of chemistry, too, offers numerous examples of the rule that science flourishes when interests external to genuine research recede into the background, that is, when the object of study and the research itself are ascribed a value of their own. In the exposition of the prehistory of scientific chemistry, one frequently employs terms that indicate the extrascientific center of attention. Thus one speaks of the period of alchemy (A.D. 400–1500) and of the period of medical or pharmaceutical chemistry (A.D. 1500–1700).

The same holds for the history of historiography. Originally, it was

mainly an instrument for the glorification of princes, dynasties, nations, and political and religious movements. Interest in the course of history and in research as such eventually acquired a greater significance, and historiography thereby developed into a source of knowledge. It has turned out to be possible to combine strong political, religious, or other interests with a high degree of objectivity in the treatment of historical material. People embarking on historical research to justify standpoints already taken have often been swept along by the dynamics of their research. They have felt obliged to give up the standpoint to which they were originally strongly committed. This they have not experienced as a loss but as an enrichment. As research workers they have—sometimes for the rest of their lives—engaged in an undertaking that exceeded their range of vision, but in which the efforts of an individual have their own independent worth.

The first steps in new fields of investigation can often be taken only when one has overcome the resistance of those whose interests are endangered by an expansion of research. Resistance sometimes arises because the expansion is taking place in an area in which certain people believe they possess pure knowledge, rather than in an area in which we all admit our ignorance. Here the development of chemistry may serve as an example. Any number of people, including several chemists, believed that they knew that organic substance could not be compounded from inorganic material. This conviction obstructed research in organic chemistry.

A further reason for resistance is to be found in the ideological importance of certain convictions. When the investigator does not confirm the results commonly held to be established knowledge in his culture, he must expect to be accused of destroying cultural values.

For all that, the analysis of already acknowledged parts of human understanding is an essential factor in preparations for new research efforts. If we do not have a strong and lasting conviction that our knowledge has defects and gaps, then we shall hardly be able to muster the energy needed for a long and intensive period of research.

The empirist tradition in philosophy is, in the main, in character with the expansion of research and therefore in opposition to attempts to portray human knowledge as conclusive and exhaustive. It is destructive inasmuch as it tries to dispose of everything that impedes free research.¹⁵

Whoever wants to participate in improving the conditions for a further

expansion of research cannot avoid feuds with points of view that seem to obstruct it. In the heat of the moment, one may easily succumb to the temptation to formulate general statements uncritically and to ascribe to them a much too high degree of certainty. This has a negative effect on motivating research in fields in which research is needed.

The brilliant contributions of logical empiricists in many border areas in contemporary science were partly inspired by a strong confidence in their criteria for cognitive meaningfulness, in physicalism, in symbolic logic, and in encyclopedic procedure. This confidence was exaggerated. Besides, it had a negative effect on motivating the investigation of empirical-semantic questions, the relationship between natural and symbolic languages, techniques for discussion as instruments of an empirically oriented philosophy, and so forth. On the other hand, if one invites others to employ a certain technique of discussion, then it is not necessary to rely on the general assumptions of the logical empiricists. One can further the empirical movement just as well by trying to bring about a positive motivation concerning investigation of the problems in question.

From the point of view of the empirical movement, it is important to distinguish between enthusiasm for science and enthusiasm for research. Enthusiasm for science easily leads to overestimation of available knowledge so that problems that presuppose doubt as to the foundations of this knowledge are pushed back. Enthusiasm for research as such counteracts this tendency. To embark on a research program, one has to make a series of assumptions that serve as provisional working hypotheses and that are changed and improved along the way. It is seldom useful to the investigator to believe that his own assumptions have a higher degree of certainty than what is strictly necessary for a good working hypothesis.

The relation between enthusiasm for science and enthusiasm for research can be elucidated by investigating how certain people react to parapsychology. Enthusiasm for science as we know it can elicit aversion or above-average scepticism toward parapsychological experiments (for example, those of Rhine et al.), although these experiments are hardly methodologically inferior to psychological experiments that are recognized as up to standard. Those who value research highly will find the possibility of a revision of our physical knowledge as a consequence of parapsychological experiments a particularly enticing prospect.

The belief in science as we know it today can impede the progress of research in various ways, such as by allowing the idea to arise that the unknown corresponds to the white spots on a map of the world. Even when we imagine such spots to be very large—even when we imagine a globe on which only a tiny green island has been inscribed with a bit of blue sea around it, everything else being left white—I believe the analogy to be false in a particular respect. The green island would form a part of the surface of the globe whose area could be determined in relation to the globe. Also, in this picture one would imagine that the island corresponds to a bit of definitively secured knowledge.

A system of scientific classification can also turn out to be disadvantageous to the expansion of research, namely, if one assumes such a schema to be something more than an ad hoc classification, adapted to certain technical bibliographical needs and the like. This especially holds of the classification of the sciences, which Auguste Comte took as fundamental in his *Cours de la philosophie positive*. By giving us the moments of birth of the sciences separately and by a system said to encompass all objects of research, he pretends to be able to place future research within certain areas. Thereby the unknown is in a sense encircled, much as the white spots on the map of Africa when the whole African coast had become “known.” For example, psychology as a science is represented as firmly delineated, so that unexplored fields can only be situated inside. The same goes for other sciences. This idea of an eternally fixed system of main sciences can hamper research, for example, when the research program depends on working hypotheses that implicitly go counter to the classification in question.

The Glass Is on the Table

Fons Elders: Ladies and gentlemen, I would like to welcome you to a debate that will, I suppose, be of interest in many respects. I would like to lose as little time as possible in beginning this philosophical contest, in which you will see an avid football fan, Sir Alfred, and a lover of boxing and alpinism, Arne Naess, debating with each other on central issues of their own philosophies. First of all, we have to discover what kinds of philosophical views both philosophers have. Sir Alfred and Mr. Naess, would you each explain to the audience what you consider to be your tasks as philosophers? Sir Alfred?

Sir Alfred Ayer: Well, I suppose to try to answer a certain quite specific range of questions that are classified as philosophical questions—and are very much the same questions that, I think, have been asked since the Greeks, mainly about what can be known, how it can be known, what kind of things there are, how they relate to one another.

In general, I would think of philosophy as an activity of questioning accepted beliefs, trying to find criteria and to evaluate these criteria; trying to unearth the assumptions behind thinking—scientific thinking and ordinary thinking—and then trying to see if they are valid. In practice, this generally comes down to answering fairly concrete specific questions.

And I hope, in a sense, to finding the truth.

This article was reprinted with permission from *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), 11–68. The debate, between Arne Naess and Sir Alfred Ayer and moderated by Fons Elders, was broadcast by the Dutch Television Foundation in 1971.

Elders: And you, Mr. Naess?

Arne Naess: Well, I see it a little differently, I think, because I would rather say that to philosophy belong the most profound, the deepest, the most fundamental problems. They will change very little, and they have not changed much over the last 2,000 years. So we have different conceptions of philosophy, but we agree that the epistemological question, "What can we know?" and the ontological one, "What main kinds of things are there?" belong to philosophy. As I see it, they are among the most profound questions we can ask.

Ayer: Yes, but how do you measure the profundity of a problem? I mean, a problem may often look quite trivial and then turn out to be profound. In a sense, you try to answer what you're puzzled by. Now this may be something very profound; it may even look quite superficial, then turn out to be profound.

Naess: How do we measure? Well, that's one of the most profound questions of all. How do we know? I suppose it will vary with cultural and social circumstances. It involves fundamental valuations, not only investigations of fact or logic.

Elders: Sir Alfred, would you give an outline of a sceptic?

Ayer: Well, I was going to talk about this. It seems to me that, perhaps, not so much in ancient philosophy, but certainly in modern philosophy since Descartes, a lot of problems have arisen out of a certain very characteristic sceptical argument. I should say that a sceptic is always someone who questions one's right to make certain assumptions—often assumptions about the existence of certain kinds of things—on the ground of their going beyond the evidence.

I mean, a very obvious and classical example would be scepticism about other minds. People will say, Well, all you observe is other people's behavior; all you observe is their actions, the expressions on their faces. How do you know that anything goes on behind? How do you know that everybody

isn't a robot, or whatever? And so you get scepticism also tied up with a certain neurosis, I think. It has also a certain emotional tone.

Or again take the classical example of the scepticism of David Hume, the scepticism about induction. Hitherto, when you lit a cigarette, it would smoke, and so on; when you have walked on the floor it has supported you. How do you know that this will happen in the future? How can you extrapolate from past evidence to future occurrences? And then you are proving that the argument is, in a sense, circular, always presupposing something that you can't justify. And a lot of philosophy comes out as the posing of arguments of this kind and the attempts to find replies to them. And you could even characterize different sorts of philosophy by their different ways of meeting the sceptic. Now, I think one mark of a philosopher, why I think that Arne Naess is a profound philosopher, is to take scepticism seriously. Would you?

Elders: But in *The Problem of Knowledge* you are quite critical about scepticism.

Ayer: I think I rather cheated in *The Problem of Knowledge*. It seems to me that I gave scepticism a good run, and then in the end somehow some little strong John Bull common sense came out in me and I took away from the sceptic the victory he had won, like a referee in a boxing match.

Naess: I had the same impression when I read your book. Ultimately you would say, "Hm, no! Common sense, after all, tells me there is something rotten here, so there is something rotten." But . . . well, I don't know your mind.

Elders: Speaking about this common sense, Sir Alfred, has it something in common with what the Germans call *Gesundenes Volksempfinden*?

Ayer: I don't know whether it has or not, because I don't know really which Germans you are talking of, or what they mean by this.

Elders: But what do *you* mean by common sense?

Ayer: By common sense I mean what Hume calls natural belief. For instance, take the case of the past. Now, in fact, you can't justify any belief about the past, because any attempt to justify it will be circular. The most you can do is check one memory by another one, one memory report by another one; or check in the records, and this again presupposes the reliability of memory, because how do you test the records? So you really have no non-circular justification.

So it's perfectly true to say, as Russell said, that for all we can *prove*, for all we can demonstrate, the world might have begun five minutes ago, with people already fully grown who delusively remember a totally unreal past.

Now I suppose, Naess, you want to leave it there and say: I really don't know. But I'd say, Well, the argument for it may be circular, nevertheless I'm going to assume it. This will be what I would call common sense. At a certain point I say, No, no, no, this is carrying scepticism too far: to hell with it.

And possibly that is a remarkable weakness in a philosopher: I should be more heroic. I mean, are you more heroic, more heroic in this way? Would *you* say we have no reason to believe that the world has existed for more than five minutes?

Naess: I think it is reasonable to say that it has existed for a very long time, and that it is reasonable that we should assume this. But that still leaves open the question of truth. Reasonableness does not rule out mistakes. Our concept of known truth is such that you must have a guarantee. But are we ever justified in saying that our research is over, we need not bother to test our beliefs any more, 50,000 years ago there were people living on this earth? We do not have any guarantees—or do we? I have not found any. The more I think about this, the less I come to feel that I know. That's a feeling you don't have every time you take a tram or walk on the floor. But in the moments when, as Heidegger would say, you live more authentically, that's to say you . . .

Ayer: Let's keep him out of this. [*Laughter.*]

Naess: I knew it, I knew it, and therefore I had my small pleasure!

Ayer: We ought to maintain certain standards.

Naess: Well, a man whose name begins with *H* and ends with *r* thinks, and other philosophers also, that we are more or less concentrated and integrated. In moments of high concentration and integration, not at the times when I am merely functioning, I have this feeling—and it is not just a feeling—that we don't have any decisive arguments for any conclusions whatsoever. That is, when the conclusion starts with "It is true that. . . ."

Ayer: And yet there is something peculiar here, in the way I view it, because we have got all the evidence. It's not like a paleontologist who might be doubtful about dating some fossils because, perhaps, more evidence will come in; perhaps someday more archaeological work will show him in which way his dating is wrong. But with sceptical questions, in a sense there literally isn't any more evidence to come in. No experiment could be made that would show us, one way or the other, that we *were* justified in assuming the existence of other minds. No psychoanalyst is going to still our doubts on questions of this kind. They are in a sense logical doubts; in a sense all the evidence is there.

Naess: There are so many conceptions of logic and of intelligibility, and of what an argument is, and of what is evidence. I feel that in questions of conceptual analysis you can never say, Now we have all the evidence here, now the cake is complete. Who knows the baker? Even in logical questions our situation resembles that of the paleontologist; we do not have all the evidence about the evidence. I am also against the idea that the collecting of evidence should always be a kind of collecting of the results of external experiments. Experiments should also be made with our logic and ourselves. What does the *I*, the *ego* mean? We use the distinction between the *I* and the rest—what does it mean? Philosophers have many, but doubtful, solutions, and I will probably go on trying to collect evidence until I die.

The mysteries that we "know" include those of "I," "know," and the link between the knower and the known.

Ayer: Yes, I'm not dissenting from what you say, I'm merely trying to get at what's behind what you're saying. Do you think we might discover any quite different criteria even of validity; I mean that we might suddenly say,

No, we don't want to use this logic? That you envisage even finding a different form of logic?

Naess: Yes, I expect the future here will resemble the past: continued modification of the conceptions of inference, criteria, and evidence. I don't think that in the year 2000 we will have a completely different conception of what constitutes evidence. But sometimes you add or subtract some kinds of evidence; and in a most unexpected way. As, for example, the concepts of proof in mathematics.

Ayer: Indeed, indeed.

Elders: Mr. Naess, I think we're still speaking a little evasively, because we can also formulate the problem of the past and the present in our own terms. Perhaps Sir Alfred will tell us how certain, how convinced he is that we are here now; and perhaps you could also speak on this question.

Ayer: Yes, I would say, if I were in a law court, I was convinced beyond reasonable doubt. [*Laughter.*] I wouldn't say it's certain; it's certainly logically conceivable that I should wake up and find myself back in my bed in London; that I've dreamt the whole thing. Although, of course, *that* experience might be the dream one. In that case, however, the question would be how things went on from then. But I would be convinced beyond reasonable doubt. I would bet on it. I would bet at least as much as you're paying me, for instance. [*Laughter.*] And I think Naess would too; he's more sceptical than I am, but he will keep a bet.

Naess: A little less willingly than you, I feel.

Ayer: But of course it's not simply a question of the fact of our being here; it's also how you are going to interpret that fact. We say we are here; but what are *we*? I mean, are these just bodies or do they have minds too? What's meant by their having minds? Are we going to regard them just as little bits of atoms, or are we going to regard them in a commonsense way as being consciousness looking outward? All these questions come up.

Just saying "We're all here" represents, I think, something that you are

pretty confident of. How, then, are you going to analyze that? What ontology do you envisage? This is again disputable.

Naess: You are now speaking as a sceptic here, Sir Alfred. We don't disagree on a single point here. But an important thing in scepticism is this: that anything can happen somehow, and that perhaps all things are somehow interconnected. Perhaps no question can be solved in isolation.

The question "Is this a glass?" is somehow irrelevant in relation to the basic problem that all things are interconnected. The particular question "Is this a glass?" evades the fact that there are several different ways of looking at the glass, that there are different relationships between human beings and a thing, and that all these interconnect.

Elders: But you still presuppose the entity of the glass.

Naess: If you say "presuppose" an "entity," that raises a tremendously difficult question. Do I ever presuppose?

Ayer: Well, of course, an enormous number of presuppositions are built even into the language we are using. If we talk about our being here at all, it presupposes first of all an assumption of human beings in some sense or other, a whole spatio-temporal system, the glass you're looking at, even the very terms we're talking in. But I wanted in fact to ask you, How serious is your scepticism? You say anything can happen. Now I perfectly agree that it is logically possible; there is no contradiction, no formal contradiction, in the idea of all these people turning into swans, and even Jupiter coming—I think Jupiter is going too far, but some human analogue of Jupiter coming in—and behaving as he did to swans. This is logically possible, but you don't envisage it as a serious possibility.

Elders: As an empirical possibility.

Ayer: I mean, it seems to me that although one admits the logical possibility, one doesn't think it will happen. One's scepticism in actual life, in one's actual beliefs, in the way one plans one's life, is pretty narrow because of the extreme force of what Hume called natural belief.

We are conditioned to make certain assumptions, to take for granted that things *do* go in regular patterns. A really serious scepticism might be represented by someone who really would refrain from taking action because, after all, the man that I shake hands with *might* suddenly explode; therefore, he says, I won't go near him. This is, if you like, an armchair scepticism, but I would not for this reason say that it was not serious, for I think that purely intellectual problems are serious. But it is, in this sense, theoretical.

Elders: You agree with this sharp distinction between logical and empirical possibility?

Naess: Well, this is not as important as certain other things that were said at the time, if you will excuse me.

I would say that sometimes I'm just functioning. When I buy a ticket to Groningen I neither assert anything nor deny anything; therefore I do not presuppose anything. I just walk, talk, and go. I don't quite feel a philosopher at such moments. I do not assert the truth or falsity of any proposition: I just function. I act with a certain *trust*. A trusting attitude in walking and buying things for paper money. I think it's a trust toward things, not propositions. And that's different from making an assertion; this *is* true and the other *is* false. That's one point.

The second point is this, that I could easily imagine that a certain lady here in the room might become a swan at any moment. I also tend to think something completely different—so many different, incompatible things, that they must collide with each other.

Therefore I'm not afraid that we shall explode, for if anything and everything can happen, you're no longer afraid. You may explode but it may not hurt you. If you only think something dangerous will happen, you're afraid; but if anything can happen, you simply calm down. And that's how I feel.

Elders: So as a sceptic you are less afraid than Sir Alfred?

Ayer: I think that if I thought anything could happen I should be afraid, yes. Anything whatsoever.

Naess: Well, that may be because you have had some bad experiences, but I have mainly had good experiences.

Ayer: No—I think it's just because I have a more feverish imagination.

Naess: Basically I have had good experiences with other people.

Ayer: But in *this*, you see, you're now doing exactly what you ought not to be doing: you're generalizing from past experiences. You say you've had good experiences, therefore you expect only good things to happen. But this is not just allowing anything to happen, it's allowing only what has happened to you to happen.

Naess: That's a misconception of scepticism.

Ayer: It's in your natural belief.

Naess: This is a first-semester scepticism. Not generalizing and using a lot of "perhapses." In the second semester you utter generalizations because you do not strongly resist your own tendency to utter what strikes you. As I say something about all people and I don't believe it to be a truth in the sense that I'm convinced it is true in the moment I say it. But if you say, Oh, Mr. Naess, you are generalizing and speaking about all good experiences with all people, then I would say, Yes, yes; I generalize quite naturally, but I couldn't give a good argument for the truth of what I am saying.

So, generalizing is okay for a sceptic; if he is relaxed as a sceptic he will make a lot of generalizations, but *without taking them too seriously*. [*Laughter*.]

Ayer: Yes, I mean, every moment it's true; of course, you're taking generalizations seriously now in reaching forward confidently and drinking your orange juice. You're taking generalizations seriously because a huge amount of theory goes into this—theories about the behavior of the glass, about the liquid that's in the glass, about your own body, about the behavior of your neighbors, deciding that they will not suddenly go mad and start to be violent, all sorts of theories. Every minute, you're making an enormous number of assumptions of this kind.

Naess: But do I assume the truth of any proposition? Scepticism has to do with claims about the truth. During the war and during the Hitler regime, and when I meet people who are really convinced that what Marx says is true, then I feel the importance of a sceptical attitude; these people take the attitude that what they're saying just couldn't be false, an attitude of unshakability and incorrigibility. This I fight. I can be shaken and I wish others to be able to be shaken! The stand against incorrigibility somehow becomes generalized until it colors one's total view. But I think one of the roots of unshakability and incorrigibility must lie in political and social conflicts.

Elders: Well, will you try to apply what you are saying now to the concept of democracy?

Ayer: That's a big jump!

Naess: Well, I have for instance discussed and published more than 300 different definitions of democracy, in order to undermine politicians who say that democracy requires such and such—Soviet theorists who say that *they* breed "real" democracy; and British democratic politicians who say that "real" democracy is very different. But I only undermine, not accuse of error. The British traditions go back to certain authors in the Greek world, and the Soviet conceptions go back to Plato and Aristotle. So they all have a "big shot" behind them. What I do is merely to make it complicated for propagandists to monopolize the term.

Ayer: Ah, something I was interested in: you used the phrase "*real*" *democracy* and I think this brings out an interesting, indeed philosophical point, namely what Stevenson called persuasive definitions. When you say real democracy, the word *real* here is, as it were, an okay word, it's trying to capture assent for your conception of democracy. Not essence, I'm not saying that I mean there is no essence of democracy; the word *democracy* means what we choose it to mean.

And you're therefore trying to capture assent for a certain definition of the word, and of course not simply assent for a certain use of language, but trying to gain adherence to a type of behavior that is associated with the lan-

guage. Someone might say, Well, real democracy consists not in the right to vote, but in economic equality, shall we say. What he's then doing is trying to capture the favorable word *democracy* for a policy that he advocates. And I think that with questions like how you define democracy, what they're really asking is not in the least how you define the word; they're not asking questions of lexicography, they're asking you for some kind of political program, the word *democracy* now being one that has got favorable sentiments attached to it. And presumably you arranged your 300 definitions in some order of desirability. I mean, there were some you wanted to be accepted more than others, that even reflected your own political opinions, presumably.

Naess: Sure, to do that is very tempting. So far, I have only undermined the use of the slogan "democratic." But, I'm sorry to say, in some ways I feel miserable to be defending scepticism now, because there is a very tragic conflict between the attitude I hold in my integrated and concentrated moments, which is more or less sceptical, and the requirements of consistent action. For instance, when we believe that we really must do something about some terribly pressing problem, we must somehow narrow down our perspective. The vast plurality of possible worlds—and how do we know in which world we live—are suddenly not only irrelevant, but contemplation of them undermines the willingness and capacity to act. Most people are only willing to act forcefully and consistently when they have a belief in *the* truth and close their minds to all else.

Ayer: But I should have thought this was a field in which a certain kind of scepticism anyhow was very desirable and fruitful. It's very healthy indeed not to listen to the rhetoric about democracy, but to look at the facts. Look and see what actually happens: see how people live their lives, see what is actually done in the law courts, look behind the words to realities. This is in a sense a formal scepticism, although you're not sceptical about the words that we use to mark them with. And I would think there that your approach is thoroughly sceptical and at the same time constructive in this field.

Naess: Yes, it's desirable that people should be like you in this way, but mostly they seem not to be like that. The students say that we must get rid of particular textbooks of Naess because they undermine convictions and

will undermine collective action now and over the next five years. And this is real; it is a tragedy, because they need rhetoric and dogmatism, I think. Scepticism breeds passivity. I do not feel that way, but the students do.

Elders: But, Sir Alfred, if you are stressing this point of the relationship between certain philosophical schools on one hand and certain values on the other hand, do you see any relation between your empiricism and your role as director of the Humanist Movement in Great Britain?

Ayer: Yes, I see some relation. I don't see a relation in the sense that I would be able to deduce my political or my social views from any set of metaphysical or epistemological principles. I don't think that, in this sense, I have a coherent system or that there can be one. But of course, I think that there is some relation, inasmuch that if one has an empirical, even sceptical temper of mind, then one will be hostile to rhetoric, or at least one will look for the facts behind the rhetoric.

I've been a humanist, for example, partly because I could see no reason to believe in the existence of God. And therefore I would be opposed to people who not only maintained this, but also based political or social programs on it.

I would be a humanist inasmuch as I think I would be professionally opposed to humbug of any kind: the kind of humbug that you too often find in people in power, in judges and people of that sort. And, in a sense, I would expect an empirical philosopher to be radical, although if one looks at history, this isn't always so. Hume, who was the greatest of all empiricists, was in fact, if anything, a Tory. This was partly because of his scepticism. He was so sceptical about schemes of human improvement.

Elders: Like Schopenhauer.

Ayer: Yes. But in general it has certainly been true in the last century or so that there has been a close association, so close an association between empiricism and radicalism that it couldn't entirely be an accident. But I think it's a matter of a certain habit of mind, a certain critical temper in the examination of political and social as well as philosophical questions, that is responsible for this, rather than some deduction from first principles.

Elders: Yes, but these are not really arguments, but merely a piece of history.

Ayer: I'm giving you an explanation. You asked me what I thought the connection was, and I . . .

Elders: The historical explanation. But we're talking now on the level of arguments about the relation between empiricism and humanism.

Ayer: But it's slightly more than this, because I think a certain habit of mind, a certain critical temper that you would develop if you did philosophy in the sort of way that Naess and I do it, would on the whole tend . . . after all, you bring the same intelligence to bear on any of a wide range of problems, even though they aren't necessarily the same problems, and this would, I think, tend to have the effect of making you a liberal radical in social and political questions. This would be more than just a historical accident, as it might be if I happened to be both Protestant and have brown eyes; it's not as accidental as that. There is, I think, some causal connection of a very close kind.

But I don't think that I can, from any kind of empiricist premises, deduce a political program. I mean, you can't get rabbits out of hats that don't contain them. Do you agree?

Naess: Well, no! First of all, you expect that as philosophers we should somehow be able to deduce them, whereas I would say our responsibility is to connect our views—our ethical and epistemological as well as our political views—in a fairly decent way so that we get a coherent whole. The connections may be looser than ordinary scientific connections, looser than deductions. I think we disagree here on how we conceive of our roles as philosophers. I consider myself a philosopher when I'm trying to convince people of nonviolence, consistent nonviolence whatever happens. That is a fairly fantastic doctrine, considered descriptively or empirically. I must therefore make clear, to myself and others, what kind of normative principles I also make use of, and derive from them the special norms and hypotheses characteristic of a Gandhian strategy of conflict behavior. I think I believe in the ultimate unity of all living beings. This is a very vague and ambiguous phrase but I have to rely on it. It is a task for analyti-

cal philosophy to suggest more precise formulations. Because I have such principles, I also have a program of action, the main outline of which is part of my philosophy. So I might suddenly try to win you over to consistent nonviolence and to persuade you to join some kind of movement—and this in spite of my not believing that I possess any guarantee that I have found any truths.

Ayer: I can see you might indeed try to persuade me of this, but I don't think you'd persuade me of these methods. The ultimate unity of living things: I mean . . .

Elders: Is this metaphysics, in your opinion?

Ayer: Well, it could be an ordinary scientific statement. In fact, it would include not only living things but also inanimate things, if they are all made of atoms; in this sense they are homogeneous. Then I suppose there is more homogeneity between organic things, although the difference between organic and inorganic is so slight.

It doesn't seem to me that on any scientific basis of this sort, one is going to build an ethical view. After all, civil wars take place, and the people who fight each other in them don't deny that they're each human beings and even belong to the same nation: but it doesn't stop the fighting.

So, in fact, this alone is not going to be sufficient. You have to put up some moral principle, which is not going to be deducible from any factual or metaphysical one; that it is wrong to take life of any kind. But do you then extend this to all life, mosquitoes and the like, or just human life? I'm not saying this ironically: I think that it's a perfectly defensible position to be vegetarian and so on—I'm not, but I think . . .

Elders: But will you try, Mr. Naess, to give the metaphysical foundation for your belief in nonviolence, about which we can speak later? We are still at the level of principles and arguments for or against metaphysics.

Ayer: And it's partly political too, isn't it? It's not just metaphysical. How well Gandhi did against the British; he would have done less well against the Nazis.

Naess: Yes, metaphysical and political and anthropological, all at once, all in one: therefore systems are unavoidable. Gandhi as a leader in Germany? Perhaps one million Jews killed before 1938, none after. He advised resistance, not submission. The metaphysical principle here of course belongs more to the Indian than to the European tradition.

Ayer: Yes, I would say so.

Naess: But the ecological movement may change the European tradition. The formulation “All living beings are ultimately one” is neither a norm nor a description. The distinction between descriptions and norms and even imperatives can be put in afterward, semantically speaking. It is the kind of utterance you make in support of something I would call an intuition, by which I do not mean that it is necessarily true. In moments of concentration you are aware of vast perspectives: yes, that is the thing, ultimately life is one!

And then you start to ask yourself how you can argue for this and what does it mean; and at this moment you need a norm, a system of ethics and an ontology and plenty of hypotheses in many fields covered by the sciences. And you say, A mosquito and myself are obviously not biologically the same, so I must mean something different from it. For instance, something like: if I hurt you, I hurt myself. My self is not my ego, but something capable of immense development. Think of a picture from the war: a young man is just going to throw a grenade and there is another young man, the so-called enemy, very similar to him, also intending to do the same at exactly the same moment. It's a case of “him or me”; but they are also obviously aware of the fact that they are the same kind of being and that to throw grenades at each other is really nonsense. They are one.

Ayer: Well, I share your moral sentiments, but I think what you've been saying is very largely just false. It's like the schoolmaster who is going to beat the boy and says, This is going to hurt me more than it'll hurt you. That's an absolute lie; it isn't going to hurt the schoolmaster at all—on the contrary, in only too many cases it's going to give him pleasure.

Naess: The boy also, if he's a masochist.

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Ayer: The boy also if he's a masochist, yes. But, in fact, what you are saying simply isn't true. I mean, not only I and a mosquito, but even you and I are not one. Of course, if I sympathize with you and you are hurt I shall be sorry, but I shan't be hurt in the same way. It's indeed true, empirically true, that to a rather limited extent human beings sympathize with one another; with people they know and like, and people they feel in some way close to. But to say that they're one in any literal sense is just false. I'm not identical with you, and it would be a terrible thing if I were, in a way. [*Laughter.*] I mean, this discussion would be very difficult.

Elders: Or it would be much easier.

Ayer: Ah, well, yes, it would be. It would be even more solipsistic than it sometimes tends to become.

Elders: Growing more and more together.

Ayer: It seems to me that clearly, if one takes these things literally, they're false; and therefore you take them metaphorically. Now, it's just when you take them metaphorically that they become moral principles of a perfectly respectable kind: that you ought to treat other people as though they . . . I mean, if you like, as in the Christian way of thinking. . . . I mean, deal with other people as you wish them to deal with you. They wouldn't necessarily have the same tastes, but in a sense one should treat other people as if they were as important to you as yourself. This is a perfectly good moral principle. But why pretend that we are identical when we are not?

Elders: Now you need some whiskey, Mr. Naess?

Naess: No, no. You are too rash.

Ayer: He doesn't want to identify with me too much, does he?

Naess: Too rash, you are too rash. First of all, there is no definite literal sense of an utterance like this in relation to its metaphorical sense. You have to analyze it from a great many points of view. Its so-called literal meaning is

hardly exemplified in any available text; what is the literal sense of the identity of all living beings?

Ayer: Well, I mean it in the sense in which the *Evening Star* is identical with the *Morning Star*; in the sense in which the Young Pretender is identical with Charles Edward Stuart; in the sense in which the author of *Pickwick* is identical with the author of *Oliver Twist*: this is what I would call the literal sense of identity. Now it's up to you, since you're not using it in that sense, to define a sense in which you are using it.

Naess: That's right.

Ayer: And now I subside.

Naess: Good. That's better. [*Laughter.*] Have patience!

When we say that we are the same, three concepts may profitably be interconnected. The ego, the self with a small *s*, and then this great Self, with a capital *S*, the *atman*, which you hear so much about in Indian philosophy, but also, of course, in certain Western traditions. If you as a boy had had a very much wider development, your self, what you take to be part of you, would not only include your body, it would include everything that's yours, so to speak; so what is yours would have been much wider.

This justifies the tentative introduction of an entity, the Self, with a capital *S*, the power of which gradually increases. You might still say your limits are those of your body, but there you would have to include units of your central nervous system such as, for instance, those corresponding to the Milky Way and the Andromeda nebula insofar as you have sensuous or other bodily interactions with them.

And in this kind of philosophy they ultimately believe that human beings can develop in such a way, that in a sense their selves include the other selves in a certain way.

Ayer: But in *what* sense? In *what* sense does my self include Fons? Or could it ever, however much I thought of him?

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Naess: Now you are too impolite. Fons is not utterly different.

Elders: I should like that.

Ayer: I'm sorry, but I don't know, I . . . Fons would like it.

Naess: Philosophy is just this; that you develop something that I've started and gradually you introduce preciseness from different directions. Then you breathe three times, reinforce your intuition, and go a little further toward precision. But there is no hurry, this process will take a long time. And of course sometimes intuitions vanish for some of us; for instance, those of "absolute movement" or of an absolute "voice of conscience."

I suppose you would say that the limits of the self gradually increase from infancy to puberty; and the sense in which it increases is, I would say, what you are concerned about. What you identify yourself with . . . the norms you internalize.

Ayer: Ah! Now that's, yes . . .

Naess: And concern in the sense in which you say *my*! You use the possessive term, *my*—*my* mother, for instance.

Elders: I think in a biological sense we form a chain of divisions; so for example, in this sense, you can use the meaning of the greater Self, against the small self or ego.

Naess: Yes, biologically we are just centers of interactions in one great field.

Ayer: But why put things in a portentous way when they can be put in a simple way? Why not say that as you grow older you come to comprehend more things; your knowledge perhaps increases, and then after a certain point, I'm afraid, diminishes again. But up to a point it increases. Perhaps your range of sympathy is greater: perhaps you identify with more things and sometimes again with less.

Again, one can't always generalize; some people differ in this respect, some people narrow themselves in the sense of concentrating more on

themselves. When one has a fairly precise method, a precise way of describing all these facts, why does one have to make such portentous statements about one's self expanding and including everything. It sounds romantic, but it's quite superfluous when what you mean can be put quite definitely: that these things happen, and these things are empirically testable. I would say that what you're describing is true of some people, not of others.

Naess: Well, what is portentous depends on at which university you are studying.

Ayer: Portentous. I did not say pretentious, that would have been rude, I said portentous.

Naess: I meant portentous also: and that depends on the university. If you had been at Oxford or Cambridge at the time of Wittgenstein, it would have been a different thing than what it was at the time of Bradley and of the Hegelians. Trivialism is portentous if carried to extremes. But let us go back to the belief in the pervasiveness of the "I." Well, people then used certain terms about which we now would say, Oh, my God, don't be so portentous. So this is completely relative, I think. There are a million things to be said: must they all begin with "I"? Spinoza introduces the "I" in part two, not in part one, of his system. Do we have a definite ego all the time? Isn't that a weird construction? A Cartesian prejudice? "I developed from this to that" or "Now I am developing more in this direction" or "I was very different when I was thirteen from when I was twelve," and so on—I, I, I!

Must we think that there is such an entity? I wouldn't simply think there is a definite entity there. Without this scepticism I would not feel "All living things are ultimately one" to be a good slogan.

Ayer: I don't think I disagree with you there. I certainly don't want to postulate any sort of Cartesian substance, anything of which the ego could be a name. I'm very puzzled about this, I don't at all know the answer to it, but I'm inclined to think that you can't find a personal identity except in terms of the identity of the body.

But of course, if that's right, if you can only define personal identity in terms of bodily identity, then your thesis that one's identity could include

other people would become false, except if some kind of bodily identification were to take place. I'm not very positive about this, but let us take, say, the relation between you and me. We're about the same age, your self and my self are sitting here now, and two small boys went to school so many years ago. Now clearly there is a physical relation, in the sense that there is a spatio-temporal continuity between these bodies and those ones, and there are also certain causal connections. I mean that what we are thinking now is causally dependent upon what happened to those bodies then. Whether there is more than this I would be inclined to dispute—except for memory, but that again could be held to be a function of physical stimuli.

So I'm inclined, I think, to equate personal identity with bodily identity, but I'm not sure about this.

But even if this equation were shown to be wrong, as it easily might be, I wouldn't want a Cartesian substance. I would want something like a Humean theory of a series of experiences linked by memory and the overlapping of consciousness and so on, so that in this sense I don't want to attach too much importance to the I.

But I think I wanted to say that in whatever way you define the series of experiences that are properly called mine, they are always exclusive of those properly called yours. I don't think that series of experiences from different persons can logically intersect. Although paranormal psychology might produce phenomena that one might want to describe in this sort of way. I don't want to be at all dogmatic about this.

Naess: I'm genuinely glad to hear this. I agree concerning the term *experience*. Its logic is subjective: insisting on using that term, you are caught in the same trap as Hume.

Perhaps before the year 3000 there will be "hardware" people, let us say people who have abandoned their brains, taking in computers instead. Collectivists may prefer this: it might herald the end of egos. But it couldn't be quite the end, and is perhaps not central to what we are speaking about. More central is the fact that, as a philosopher, I think I have a kind of total view, which would include logic, epistemology, and ontology, but also evaluations, and that I do not escape from the relevance of them at any moment. When I'm saying who I am, so to speak, I cannot avoid indicating what kind of evaluations I make, what kind of priorities or values I have, et

cetera. And there it seems to me that we get into a metaphysical area, a “portentous” area, because only there do we realize just how many different conceptions of fact and experience are possible.

I have a feeling that the empiricism that I suspect you are inclined to accept is too narrow, in a sense that you do not admit a commitment to statements that are untestable empirically. I am inclined to say, Your thinking is too narrow. Would this hurt you slightly? If I hurt you I hurt myself, which means that if, for instance, I now said something to you and the next moment I thought that it had been unfair of me to say that when I realized that it had hurt you somehow—not that you couldn’t easily win an argument—but if it had hurt you, I would have a moment of identification. Phenomenologically there would be “one” hurt, which was not yet “my” experience. I expect you now to jump into psychology and say that when you identify yourself with somebody else this is a matter of psychology, not philosophy, and that we have the empirical evidence from more or less good experiments that can show us to what extent we identify with each other. It has no ontological consequences. If *A* identifies with *B*, he remains *A*.

But for me it is more a question of what in German they would call *Einstellung*; it’s something that is not reducible to empirical psychology, because whatever the psychologists find, I would stick to it probably. They are committed to a definite conceptual framework from the very beginning.

Ayer: Yes, I wasn’t going to take that move, because I don’t think these labels matter all that much: these are classifications for librarians. I think we should be free to say what we like in every field if we like. I was rather going to take up what you said earlier about this question of who I am. I think when I was arguing before I was using it more in what could be called a “passport” sense; for example, who is Arne Naess? I would say that he is someone who answers to such and such a description, whereas you were clearly using it in a wider sense than this. You were meaning by “who am I?” something that has to do with your own conception of yourself. When you said that hurting me would hurt you, this means that it would in some way be injurious not to your identity as the passport Arne Naess, but injurious to your conception of yourself, injurious to the sort of man you like to think of yourself as being. And possibly also if you hurt me it would have repercussions on your own character, and therefore in this sense you’ve in-

jured yourself. You wouldn't literally feel the pain that I felt, but you would be damaging yourself; which means that you are, in a certain sense, identifying with me, because you regard it as part of your conception of yourself that you don't gratuitously or voluntarily or deliberately hurt other human beings.

Now there seems to be no quarrel here whatsoever. But I think that if there is a difference between us, it is that I make a sharper distinction than you do between what's descriptive and what's normative. I would say that this was simply an announcement of what rightly, to put it in this way, could be called a policy.

I mean, it is perhaps not quite right, it's somehow not so deliberate as that, and it's more important to you than that. But this is a form of life that you're adopting, and something that goes very deep, and you put this forward, if you like, for me either to imitate you or disagree with you.

But, I think that a mistake could only arise, and I should only have a quarrel with you if you tried to prove it by deducing it from what masqueraded as a statement of fact. If you accept what I have just said as what you mean by "you and I are one" or "you identify with me," then we are talking in sympathy. It's only if you say that you have this policy *because*, and then make this appear as a factual statement, that we then quarrel on intellectual grounds.

Elders: So, in fact, the central question is the relationship between metaphysics and morality.

Naess: A norm or a moral injunction should not masquerade as a description; but neither should a statement involving description, for instance factual description, masquerade as a norm. "All living beings are ultimately one" admits partial interpretations or analyses in various directions, descriptive and normative. None seems to be exhaustive, which is typical of good old metaphysical formulas.

Incidentally, the distinction between fact and norm, or injunction, is ultimate: it is not that I think the norms are less normative, but that the descriptions are less descriptive. Description presupposes, for instance, a methodology of description. A methodology includes at least one postulate, at least one rule. A change of postulates and rules changes the descrip-

tion. This makes the notion of description as opposed to norm a little shaky: therefore I no longer use the term *fact*. It suggests independence of postulates and rules.

Elders: There we go, Sir Alfred.

Naess: I am sorry, I would feel badly if you were to take me as just a Heideggerian or some kind of . . .

Ayer: No, no, on the contrary, I mean, I wouldn't . . .

Naess: I'm not so sure I'm not. I'm quite near Heidegger in a certain sense.

Ayer: Nonsense, nonsense, nonsense!

Naess: Yes, we are *Geworfen*. I feel very much that I have been thrown into the world, and that I am still being thrown.

Ayer: Now *why* do yourself this injustice? Why spoil it? Now leave him out, keep him out. How do you know we are thrown into existence? You may have had a very difficult birth for all you remember.

Naess: How do I know? How do I know the relevance here of knowledge?

Ayer: Thrown into existence, nonsense.

Naess: Perhaps you use the term *know* too often.

Ayer: This should be eliminated.

Naess: Let's get away from being thrown into existence. . . . Yes, I shall try to trust you when you say that I am not thrown!

Ayer: Okay, but I take your earlier point, which I think is an extremely important one, about the vulnerability of the notion of fact.

I think we need the notion of fact, because we do need a distinction be-

tween fact and theory at some level: we need some kind of distinction between the deliverances of observation and the explanation for them. But of course it is not a sharp distinction. And if you like to say that what we call facts are already theory-laden, I would say it is a fact that there were more than two glasses on this table, and I should agree that an enormous amount of theory has already gone into this.

And I would share your scepticism about anything that might be called pure unadulterated fact. I think probably that doesn't exist, that there is already some conceptualization here, and if you like, conceptualization is already to some extent normative; pragmatic considerations have already come in, in the way we classify things, since the classifications are based on what we find it useful to do. So I quite agree that the distinction isn't an absolute one. The only question is whether it's relatively strong enough to bear the sort of weight I want to put on it. And I'm again hesitant about this.

Naess: I'm glad you are hesitant. But of course, when you say we need a concept of fact, of hard fact, I say some need it sometimes. But who, and when? It's not the great Self, it is the small self that needs limitation: it is when I'm functioning in tough practical situations, but not when I'm deciding what it is worthwhile doing in life, when the very widest perspectives are involved and when one is concentrating and meditating.

Ayer: One needs to make certain distinctions in order to move forward a little bit. You must take certain things for granted in order to make a further step, and then possibly you go back and question other things; otherwise you never start.

Naess: Yes, I agree. But it doesn't help you when you're saying that we need a concept of fact, for example that this is a glass.

I do not think we need a concept of fact, and we do not even need a concept of knowledge, in what I would call fundamental philosophical discussion. After a lengthy discussion, when we really get down to subtleties and refinements and also fundamentals, the term *fact* no longer occurs in your speech; neither does the term *I know* occur in mine as far as I can see. But there is this kind of vanishing—somebody said that the state

would vanish, though they say it less and less now, I think—and I would talk about the vanishing distinction between description and norm, fact and nonfact: the vanishing distinction, not vanishing facts, but the vanishing distinction . . .

Ayer: Well, the vanishing distinction between truth and falsehood?

Elders: No, between fact and interpretation.

Ayer: Well, then I would say I would need the concept of fact to maintain the distinction between truth and falsehood, to maintain some notion of truth as stating what is so and falsehood as stating what is not so, and using *fact* as a purely general term to cover what is so.

Naess: But you don't need the term *fact* in order to maintain the very general distinction between true and false. . . .

Ayer: I don't need the actual term, but I need some term doing that work.

Naess: I don't think so.

Ayer: You don't admit it—you do?

Naess: Well, not in order to uphold the distinction between true and false. There is a need for the term *fact* in everyday trivialities, like when I pick up this glass and . . .

Elders: Well, but in a logical sense you don't need any fact. . . .

Ayer: No. You could certainly do without the actual term *fact*, because one can talk of propositions as being made true by states of affairs, by events, by things having certain properties, or whatever. But I still think you need something to stand for what stands on the right-hand side of the equation. You have an equation: such and such a statement is true if and only if . . . and then you assert whatever it is. For instance, "You and I are sitting here" is true if and only if you and I are sitting here. Then you want some generic

term, it seems to me, to describe these states of affairs that in the last resort verify or falsify all the statements that we make.

I do want some residue of realism, I want something out there that in the last resort makes our statements acceptable or not acceptable: in the end one can't say that anything goes. It's all very well my wanting to believe that I have a thousand pounds, or a million pounds in the bank. I go to the bank and I try to draw it out and it's a fact that the cashier doesn't pay it to me.

And in the last resort one wants some, I don't mind what term you use, but some term, it seems to me, to characterize, in any philosophy, really this . . . the brutishness of things, the hard things you stub your toe against. Yes this, like Dr. Johnson. [*Strikes his fist on the table.*]

Naess: Excellent. But it is highly characteristic, I think, of your monumental tradition of empiricism in England, in Britain, I should rather say.

Ayer: England I prefer. I'm not a Scot.

Naess: I would say British: the Scots were wonderful empiricists. But when you need a term for something, if you say this: it snows, it does not snow; this is true if something, something . . .

Ayer: That's right, the actual stuff.

Naess: . . . then you get the idea: ha, facts. No, that is British, [*laughing*] that is not universal. The Bengali seem never to get the idea; think of Tagore and others. . . .

Ayer: If it were British, alas, we should be in a much more powerful position than we are. I'm afraid it's becoming American.

Naess: Well, I learnt from housewives and schoolgirls another way of putting it. They say that something is true *if it is* so. Marvelous. It is a little wider than "it is so," and much wider than "it is a fact." It's true *if it is* so, it's false *if it isn't* so. Marvelous. But very little is said, of course, concerning testability.

Ayer: But “its being so” is what I call a fact.

Naess: “If it is so”; we have a conditional there, and there we agree.

Ayer: Yes.

Naess: It is only true “if it is so.”

Ayer: Certainly.

Naess: But what *is*? What *is* there? And here we must be terribly comprehensive, if we are to include all living ontological traditions. And to narrow it down to facts is to narrow it down to the British Isles first of all.

Ayer: Oh no, no, no, you mean, only in the British Isles anything is so? I’d be very sorry to hear this.

Naess: No, on the contrary, “Anything is so that is so” is more, is broader than “What is a fact?” And the British tradition, which politically speaking is sometimes, I’m glad to say, very good in comparison with the opposite German attitude . . .

Elders: With the Labour government or with the Conservatives?

Naess: Both, they are identical as far as . . .

Elders: Do you agree, Sir Alfred?

Ayer: They’re much more similar than I care for.

Naess: Yes, and very British.

Ayer: No, when the last government was in power, I thought, These are no better than the Conservatives. But now that the Conservative government is in power, they are worse.

Naess: When you say “they are worse,” would you add, Well, I just talk like this, it is not part of my philosophy? Personally I would say, This is part or should be part of both our philosophies. “They are worse,” you should be able to say that . . .

Ayer: I do say that, constantly.

Naess: But you might do more than say it, you might take it as part of your personal philosophy, or your *total view*. And there we are—the total view—which is considered unclear, unempirical, metaphysical in a bad sense. Because if you have a total view, somehow it hangs together and you always see the facts only as structures within a great body of hypotheses.

Ayer: You can't seriously maintain, can you, that every opinion that I hold, or every emotional preference that I have, must be tied up with my philosophy. For example, I'm a lifelong supporter of Tottenham Hotspur, a football team: it is absurd to say this is part of my philosophy and that, had I happened to support Arsenal instead of Spurs, I could not be the positivist pragmatist that I am, but some sort of absolute idealist.

This is being ludicrous. I have lots and lots of opinions about all sorts of things: political opinions, aesthetic opinions. If you like, they're all unified in the sense that it's the same person who holds them; and possibly some very clever psychologist could trace some connection, could realize that there was something in the Spurs type of play that would appeal to philosophers of my sort possibly more than something, shall we say, in the play of Manchester United. But why do we have to go so far? Why not leave me in my compartment?

Naess: No, not today. No, if you say “they are worse” and you think of a Labour government, or any other government, you do not mean worse as football players, you mean worse . . .

Ayer: I make a moral judgment, yes, certainly.

Naess: Partly moral, partly political and economic.

Ayer: Mainly moral.

Naess: And to me that means that you are already involved in philosophy. There are degrees of philosophical relevance. Not all moral judgments are part of your system, but all moral judgments of yours should hang together within the framework of your philosophy; let us distinguish frame and details. So every moral judgment you make is relevant to your philosophy without being part of it. The mythical fall of the apple that struck Newton is not described in a physical system, but it is a physically relevant fall.

Ayer: In this sense I don't think I have a philosophy.

Naess: I suspect you don't have.

Ayer: I don't think so, no. I don't think that anyone *should* have in this sense.

Naess: Should! Another ethical judgment.

Ayer: It seems to me that I have an intelligence such as it is that I . . .

Naess: Here is a moral issue for you. I shouldn't have such a philosophy—your general statement included me.

Ayer: I think it tends to confuse your thought. I think you'd be a better philosopher if you did not have such a philosophy.

But I don't know, it is such a silly question: are you speaking as a philosopher? What does it matter? Am I speaking as an Old Etonian, am I speaking as a former member of a regiment and so on. I mean, it's irrelevant. The question is, What are you saying and what are the grounds for it and how would you defend it? But this "are you speaking as a such and such?" seems to me to be somehow a red herring. I'm not speaking as a fisherman, I am not a fisherman in fact . . . not even of souls. [*Laughter.*] The point is to say, Well, all right, you hold these principles about the Conservatives; why do you think they're so bad? And then I would say something

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about the dislike of the kind of businessman's outlook they seem to represent, this "let me make as much money as I can" that is the true characteristic of many of them. This, in a sense, is the theme that runs through their policy and attitudes.

And then you say, Are you speaking as a philosopher? I don't know how to answer this if you mean, Do you deduce this from your views about the problem of perception? No, I don't. If you mean, Is this in any psychologically recognizable sense the same person as wrote those books?, yes, it is. What more do you want?

Naess: I wonder, if you said . . .

Ayer: Or was it already enough?

Naess: . . . you shouldn't have a total philosophy; you would be a better philosopher . . .

Ayer: I don't say "you should," I say you haven't got a total philosophy.

Naess: But you said "you should" . . .

Ayer: I also shouldn't have . . .

Naess: I do not forget it. You said I shouldn't have it.

Ayer: Yes, I will maintain that, I'll maintain "you should not." Liking you as much as I do, I change this to "you do not."

Naess: Too late!

Ayer: But I'm prepared to maintain also "you should not."

Naess: We probably agree that a dogmatic view of all things lacks value, even if it were possible to work it out. But implicitly we pretend to coherence, implicitly we pretend to have methods of how to establish views, empirically or otherwise. In short, we implicitly pretend to have views rele-

vant to whatever we say. And those views are personal, not something found in libraries.

I'm inviting you to let us get hold of more of you; and not psychologically or socially, as Mr. So-and-So or Sir So-and-So, but to get to know how you perceive the world, its relation to yourself, the basic features of the condition of man as *you* experience them.

And I call this a philosophy and approximations to a total view.

Ayer: Oh, no, no, no.

Naess: Now you try to take that back?

Ayer: No, no, no.

Naess: You have said I don't have . . .

Ayer: No I don't take it back. Let me put it this way. I don't think that the term *total philosophy* . . .

Naess: Total view.

Ayer: . . . has any very useful application. What would having a total philosophy imply? Assuming that you do and I don't, in what way, in what concrete way, do we differ? I mean, I also have opinions about politics, ethics, aesthetics and express them and act on them. But these are not part of a total philosophy in your sense. How would I have to change, either in these opinions or in the metalanguage, in order to have a total philosophy in your sense?

Elders: May I try to formulate a question by which you could perhaps illustrate your point of view? Does your offensive nonviolence, Mr. Naess, imply that you would prefer to be killed by someone else rather than kill someone else? Is it part of your philosophy?

Naess: It would be more than a preference, actually. It might be that I would prefer to kill the other person, but I value the preference negatively.

Norms have to do with evaluations, with pretensions to objectivity, rather than preferences. Let me formulate it thus: I hope I would prefer to be killed by someone else rather than to kill, and I *ought* to prefer it.

Elders: And this is a part of your philosophy?

Naess: Yes. And it has empirical, logical, methodological, ontological, et cetera, ramifications, like other philosophical issues. It belongs to a greater unity of opinions which *in part* are derived from certain principles of descriptive and normative kinds.

Elders: And how is it for you, Sir Alfred?

Ayer: I should, I think, disagree. Although it's a very difficult question, I can imagine situations certainly in which I should prefer to kill someone rather than be killed by them, in which I should in fact try to kill someone rather than allow him to kill me.

After all we were both, I assume, in the war and there these situations arose. But I don't see in fact how this fits in. Because supposing I gave a different answer from the answer that he gave or indeed suppose I gave the same one, how would this in either case be part or not be part of a total philosophy?

It might of course in some situations be an extremely important concrete moral question; but what I am denying when I reject that sort of philosophy is that the way either of us answers a question of this kind has any relation, any logical relation, to our views, for example, on probability or on the theory of knowledge, or on the mind-body question, even on such questions as the freedom of the will. Whatever our theoretical views about the freedom of the will, I can't see that they would settle a question of this kind one way or the other. I mean, we might both be determinists in theory and yet take different views about this; or we might one of us believe in free will, the other in determinism and take the same view. When I was sceptical and said you shouldn't have this total philosophy, what I meant was that I can't see what the links are supposed to be to make the totality.

But of course I have opinions on all these matters and very strong ones, although in this particular case I think I would probably dissent from you.

I think I'm not a total pacifist. I haven't been in the past, and I think I can imagine circumstances in which I shouldn't be in the future. I think if something like the Nazis were to reappear, I would want to defend myself against them as I did then.

Naess: There is a relation between not wanting to kill somebody else, even in a fight, and epistemology; because any question which you answer implies a methodology. And this also holds good for the question "Would you prefer to be killed rather than to kill?" In order to answer this I must have a kind of methodology to find out whether I would. All fields of inquiry are interrelated; therefore we implicitly must pretend to cover them all when giving any answer whatsoever. We presuppose a total survey from mathematics to politics.

Ayer: May I put this concretely? Suppose that either you or I held a physicalist's view of human beings, something like Gilbert Ryle's *The Concept of Mind*. Suppose you were a behaviorist and thought of the mind as the ghost in the machine and so on, do you think that this would then entail an answer one way or the other to your question? Do you think that Ryle, for example, is in some way logically committed to giving a different answer to this question from the one that you would give?

Naess: No, I don't think it would entail this. But I think that certain views cohere more or less and that it's the business of a philosopher today to try out to what extent they cohere; to what extent they're not only logically consistent, for that would leave us too free, but also coherent in their non-logical aspects.

Ayer: Do you think that this view of the mind would even favor one answer to this moral question more than another? I mean, could you deduce simply from Ryle's book, other than psychologically, even in a semilogical way, what moral position, what view he would take on this moral question?

Naess: I think that if you made different combinations of interpretations, it favors, so to speak statistically, the acceptance of violence. But we would be capable of reconstructing it in such a way that it would not favor violence.

And this is an important thing. A book like Ryle's leaves things implicit: presuppositions, postulates, methodological rules. No single, *definite* set can be said to be presumed; therefore there will be a plurality of interpretations and a plurality of reconstructions.

And I agree with you, it is too easy to talk about a total view and to say "I have one." I detest questions like "What is your total view?"

Ayer: Yes.

Naess: Yes.

Ayer: Well, there you see how much I sympathize with you.

Naess: We cannot have a total view in the sense that we are somehow inescapably linked to certain definite opinions; nor can we behave like a general surveying an army of possible views and pick out some, saying "these are my views"—the relationship between ourselves and our views is too intimate.

Ayer: I should have thought, in fact, that your general philosophical position, with which I sympathize, went entirely the opposite way, and that the tendency would be to see each question independently on its own merits; not to feel that you were committed by your answer to this one, by any answer to that one.

Naess: Not any longer.

Ayer: Not any longer?

Naess: No, because I feel that as a philosopher I am an acting person, not an abstract researcher. Even this discussion is not really some kind of contemplative affair; it is also a kind of continuous action all the time.

Ayer: Indeed, indeed. In certain things you then require more coherence in action than you do in theory. You don't mind your theories being incoherent, but you want your actions to be coherent.

Naess: In research I tend to adopt an almost playful attitude in the sense of looking at and pleurably contemplating more combinations of views than anybody else. More kinds of common sense even! But as an acting person I take a stand, I implicitly assume very many things, and with my Spinozist leanings toward integrity—being an integrated person as the most important thing—I'm now trying to close down on all these vagaries. I am inviting you to do the same.

Ayer: But, why should I . . .

Naess: As a person you may have such a high level of integration that if you took some years off and tried to meditate a little more, you would be able to articulate some of your basic evaluations. These are more than inclinations; Jaspers calls them *Einstellungen*. They determine or at least express an important part of what would be your total view.

Ayer: It's not a prospect that I find at all desirable. Failure to be articulate has never been my problem, I think.

Naess: I think so.

Ayer: Well, there are hidden problems perhaps, I don't know.

Naess: Too fast, you're too fast.

Ayer: Yes, but I say a lot of things twice, that's all right, I catch it on the second time 'round.

I don't know; why should integrity demand consistency? One thinks that it does, but why shouldn't one judge things differently when the circumstances are always different? Why shouldn't one have the same flexibility in one's moral and political judgments as one wants for one's theoretical ones? I suppose one thinks that people are insincere if they don't maintain similar opinions in similar cases; but then the question of even what cases are similar is theoretically difficult.

I don't know: I dislike what you have just said—I think it's really the first thing that you have said at all, that I *have* disliked. This seems to me to

be really a conception of, well, I don't mind if it's called philosophy or not, and I don't mean that someone's trying in all honesty to solve problems that he thinks important, theoretically important or even practically important, but that somehow this represents a kind of deep narcissism, a digging down into oneself, contemplating: I'm not concerned with this. All right, it is possible that if I spent a year meditating I should perhaps dig up some very pleasant things; I don't know, I don't care. I've got better things to do in a way. I've got this problem, that problem, the other problem. I've got a certain intelligence. I'm going to use it for as long as it lasts. And perhaps, when I'm gaga I'll start contemplating in your sense.

Naess: Too late!

Ayer: And of what interest will that be to anybody?

Elders: I'll ask the same question, but not on a personal level. Would you say, Mr. Naess, that in your total philosophy intellectuals have a special responsibility at this moment?

Naess: Yes, because they are highly articulate. They are trained at universities in situations where they have at least three-quarters of an hour to think what could be argued against this, what could be argued against that; they get to be narrow and clever, too clever. I think that intellectuals might consider their intellects in a more Spinozistic way, as *intellectus* in the Spinoza way, and cultivate *amor intellectualis*.

Elders: Can you translate it?

Naess: *Amor intellectualis* would be a kind of loving attitude toward what you have insight into, while considering it in an extremely wide perspective. And intellectuals might do this without making the terrible mistake of becoming sentimental or fanatical. They would be able to say things to people in a more direct way and to articulate evaluations, their attitudes—*Einstellungen* or total attitudes—in a very forceful way while at the same time using some of the, in a narrow sense, intellectual training they have acquired in the universities.

They should be able to make us feel that to elaborate total views that are not expressive of something like "I am more clever than you are" is neither portentous nor necessarily favors some kind of fanaticism. When I say that you are, perhaps, deficient in articulation, it is because I feel you jump too fast to particular opinions on so-called facts, instead of taking a broad view and letting yourself say things which sound portentous and which might make you sound like a rhetorician or a politician, or even a prophet.

In this way I think that the intellectual of today, and especially the philosophically educated one, has a larger and wider function than that of being analytically minded. I'm sorry I use that catchphrase.

Ayer: Well, I don't disagree with you on the question he asked. I do think that intellectuals obviously have a responsibility to do their job as they see it, and as well as they can do it; and also, I think, a social responsibility. I'm not a believer in the ivory tower at all; I think that anyone who has the capacity to think and to reason and perhaps believes, rightly or wrongly, that he can see things clearly, *should* try to contribute to social and even to political questions, so I don't in the least dissent from you there. I don't think that we quarrel at all about what we should be doing. What I think we may quarrel about is perhaps *how* we should do our job, and you might think that I do it in the wrong way.

Naess: Well, couldn't you send me a copy of a speech made by you about a political situation?

Ayer: Indeed, I could send many. I mean, I'm constantly doing this; I've even stood for office, but I lost. I've stood on soapboxes on street corners. . . .

Naess: And there you use descriptions and norms.

Ayer: Ah, mainly normative, my language is then pretty emotive.

Naess: May I ask for instance, could you act as if you were now on a political platform? Say something real, "Bang!" like this.

Ayer: Well, I think that you can't. Political speeches are not made in the ab-

stract. But if I knew local politics, I daresay I could make quite an effective political speech. I would point out how one side was acting in its own interest, more than the other, and how such and such a measure was perhaps an attempt to preserve privileges, or was associated with corruption, and all this would be highly charged emotionally.

Of course, we have to have facts behind it; it's no good saying so-and-so is corrupt unless you produce some evidence. But these two elements are mixed, obviously; and political speech has got to be factual, but with emotive overtones.

Elders: What's your attitude toward the Common Market?

Ayer: This I regard as a factual and technical question. I'm emotionally in favor of it, in the sense that I'm in favor certainly of larger units, against nationalism.

But economically I simply don't know; whether from the point of view of the ordinary Englishman in the street the economic price will become too high or not. And the economists are totally in disagreement. So, as a rational man, I suspend judgment. But I myself, if you like, feel European. I am by origin not purely English, I have some French blood, even on my mother's side Dutch, and therefore I'm emotionally in favor of a larger unit.

But I think this is partly a question of fact where I acknowledge ignorance. Whereas Naess, with his total philosophy, brings in different little facts. If he doesn't believe in facts, then why should he joke about them in this issue?

Naess: This is rhetoric, isn't it? [*Laughter.*]

Ayer: Of course it was, yes.

Naess: You shouldn't immediately give up so quickly in this way. Behind the rhetoric there are sets of value judgments.

I'm in a fight against Norway joining the Common Market. And one of the main things I'm against is putting larger units in place of smaller ones. I think that the larger units achieve greater technological advances and larger units of production instead of getting together with other peo-

ple in a nice personal way. We will get bigger markets, more standardized products, and we will take over some clever ideas from British universities instead of using our own less clever ideas about the university.

Ayer: I would think that some ideas from Norwegian universities might even be more clever than the ones I get at Oxford.

Næss: I doubt it, really. On the whole we are not clever, but we are provincial in the good sense of living our own way undisturbed by pressures from the great centers.

For me the question of whether to join the Common Market is not merely a factual and technical question. I am trying to connect my fight against the Common Market with basic evaluations. What are our value priorities? I see other people without analytical training taking up a philosophical point of view. I try to help them articulate their implicit systems in order to connect their ways of feeling with ways of asserting and evaluating things. Doing this I still feel myself to be philosophical and intellectual, whereas you would say it's more emotional, it's my emotional inclinations.

Ayer: No, I don't think so: on the contrary. I just said I thought it was partly a rational question, but I suspended judgment because I don't believe I have enough evidence. I mean I don't let my emotions dominate me here, because emotionally I'm attracted to the idea, but I suspend judgment as I'm not convinced of it intellectually.

Elders: So you couldn't be a good politician?

Ayer: I'd be a rotten politician, yes.

Næss: Just a minute. You couldn't be convinced intellectually? There I think you again use too narrow a concept of intellect. . . .

Ayer: No, I mean that if I were to take a final decision, it would depend, in part, upon the answers to certain economic questions, to which I don't think I know the answers.

Naess: Well, again you are displaying something narrow, I think—no, not narrow, but something peculiarly empirical—when you talk of a final judgment. But I can't make a final judgment about anything political, in a sense, because all the time that I am acting and being acted upon, here, all my judgments will be provisional.

But in spite of being decidedly against the Common Market, I could say that the range of facts known to me is probably narrower than yours; I know perhaps less about the Common Market. Decisions cannot wait until all the facts are gathered: they are never all available.

Ayer: Well, I hope the judgment is only final in the sense in which the reaction might be irreversible.

Elders: Irreversible, yes. Well, perhaps I could now ask my final and I think most difficult question; a question about the audience: do you think we have managed to get through to the audience, both here and at home?

Ayer: Yes, I think, in part. I mean, how can one possibly tell? I do think we have got through to the audience here in the sense that nobody walked out, and nobody threw things.

But inasmuch as we were both talking seriously and saying things we believed and things that interested us, and on the whole not trying to score off one another but trying to get at what truth there is in these matters, then I should hope that this at least would get through.

And perhaps, when one looks at two philosophers talking, this is what one wants to get through: the idea that these questions are important, some idea of what sort of questions they are, and some idea that one can really seek the truth about them without, perhaps, any notions of personal advancement.

Elders: And you, Mr. Naess?

Naess: I trust that we have got through to a limited extent, of course. I feel sure many people have turned off and are looking at something else.

Elders: Well, may I now suggest that we have a short discussion with the

audience? Perhaps we could agree about time. I suggest a discussion of half an hour.

Ayer: It has taken very long already.

Elders: You would like to relax a little?

Ayer: I must say it was not an easy passage of time.

Elders: Yet you have not walked out, Sir Alfred, after an hour and ten minutes. Well, may I have the first question?

Ayer: Get one done, yes.

Question: In the beginning, Sir Alfred, you gave a definition of philosophy that was entirely a negative definition. Philosophy is a kind of criticism, a criticism of belief and a criticism of knowledge, but I feel a certain tension between that kind of definition of philosophy and the opinions on everyday matters that you have and that you derive from what you call natural belief, or what is part of natural belief.

Ayer: Or common sense.

Question: Well, what is the relation between that positive conception of a rational belief or a rational certainty of the world that you have, and your negative definition of philosophy? And that question is related to another one—and here I feel that, perhaps, Mr. Naess would have another opinion—namely that natural belief is a thing which for itself has a criterion; you have criteria in order to be certain about certain things. But there can be different kinds of certainty, and so different kinds of natural belief. Why do you have this kind of natural belief and not another?

I don't know if this is perfectly clear, but I could elucidate this by giving an example. For instance, I imagine that I believe in ghosts, or I believe in the existence of Australia, where I have never been. I could give criteria for believing in ghosts, as I could give criteria for believing that Australia exists.

They would be the same kind of criteria. I've never seen either of them, never perceived them, never heard them, but I've read about Australia, and I've read about ghosts.

And I think that if you conceive natural belief in that way, then it could be possible to have another kind of natural belief; for instance in werewolves. I could be instantly afraid of you, for instance, because I saw a certain glance in your eyes which would be for me an indication that you were a werewolf.

Elders: Is the question clear?

Ayer: Yes, it's clear to me, I think. On the first part, I didn't intend my definition to be a purely negative one, and wouldn't in fact think it to be so. I mean that in one's questioning of accepted beliefs, or really of the criteria underlining accepted beliefs, one's attempt to clarify concepts, one can quite often come up with a positive answer. And I think there are examples in the history of philosophy; for example, Hume clarified the concept of cause, and I think that as a result of Hume's work one understands much better than people understood before what is involved in causation. I think he showed that the popular concept of causation was, to a very large extent, if you like, superstitious; but that there is then a residue remaining that can be clarified and be made quite precise. And I think, for example, that the concept of truth has been clarified, first by Aristotle and more recently by Tarski and so on; and, at present, I am myself working on the concept of probability and other people have worked on it. And I think that through this, one often arrives at something positive.

I don't at all want to say that one has to come to rest in scepticism, but only that scepticism was a kind of challenge posed to the philosopher, one that sometimes he didn't need, sometimes he left alone, but sometimes at least it provoked him into providing an answer, which was at least provisionally acceptable. I think I agree with Naess here that it's always only provisional.

I think the second half of your question was in fact very important and profound, because I think there is a kind of relativism here that is in a sense inescapable. The reason why we all believe in Australia when many of us haven't been there, is that it fits in with our general conceptual scheme;

there is nothing surprising to us that there should be a country on the other side of the world. We have a spatio-temporal framework into which you fit things: we already have a scientific, and after all, very fine, well-tested belief that the earth is round, so that there should be a country at the antipodes is something that comes quite naturally to us, so that here we accept testimony; we could go there and see for ourselves, but we don't bother to.

Now ghosts, even though they might be well attested—let's assume, for the sake of your question, that the evidence in favor of apparitions is even stronger than it is, or, much stronger than it is—there we become more cautious because it doesn't fit into our way of organizing the world.

Now you might say, Why not? After all, this has been true of some primitive peoples, so why don't I see you, not just as another man, but as, potentially, a werewolf, a being with all sorts of magical powers and so on?

Now, this could be a way of organizing my experience and it's a way in which people of other communities have, to some extent, organized their experience; and, in a sense, I can't refute it except by begging the question against it; except by assuming all sorts of metalogical criteria which are inconsistent with it.

So, in the last resort, I think, the answer here is pragmatic, in the way that it seems to me that, with a system of explanation of the sort I have, I explain phenomena more satisfactorily, I make more successful predictions than I do with an animistic system.

But if someone likes to see the world animistically, I don't think that I can refute him, because, as Naess pointed out in our discussion earlier on, the notion of fact is itself a dubious one, itself infected by theory. And I could say, well . . .

Elders: You've nearly converted him.

Ayer: . . . in a sense I'm more successful with my type of theory than he would be with his.

Elders: Well, Sir Alfred, he has nearly converted you.

Naess: No, no, what I would say is that I listened with pleasure because there you used some kind of a concept of *total view*. And so I congratulate

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you for making Sir Alfred show in practice that he is very near to thinking in terms of total view.

Ayer: Oh, in this sense, if you like to think of one's language and what's implied by one's language and one's general method as a total view, then certainly. I think connections are much looser within the conceptual system than you're making them out to be. But to this extent, certainly.

Elders: Ladies and gentlemen, this has to be the end of this debate. Sir Alfred, Mr. Naess, thank you very much for your total, clear discussion, on behalf of the audience, here and at home.

Logical Empiricism and the Uniqueness of the Schlick Seminar: A Personal Experience with Consequences

In what follows I shall speak about many phenomena, but what I wish to convey more than anything else are the positive aspects of the rightly famous seminar headed by Moritz Schlick in the years before he was shot on the stairs of the University of Vienna in 1936. The characteristics that I shall describe made the seminar unique. I have taken part in a wealth of good seminars before and after 1936, but my experience as a participant of that seminar makes it, for me, stand out as unsurpassed.

When for the first time I entered the room where the seminar was held in 1934, I did not know what had been happening there. I had heard nothing about the seminar or about logical empiricism in general. It took less than an hour for me to understand that something very special was going on there. In the autumn of 1935, when I left Vienna, I did not yet realize how much I had been influenced.¹ It is only recently that it has become clear to me what I found so deeply inspiring—what touched both my heart and my brain. I shall permit myself to trace how the experience affected my later philosophy.

The seminar was headed by a “professor ordinarius,” a prestigious title in the context of central Europe, but Dr. Friedrich Waismann was the actual leader. Both men were culturally well established, mature scientists and philosophers. There were other well-established personalities. The first feature to be mentioned is the participation of mature, independent, established personalities. The second feature is the unmistakable diversity of

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their characters. Obviously, not only from what they were saying, but from their body language and manifest attitudes in general, they had to have different opinions and this would have to color their philosophy.

With the third feature, things start to be interesting: both the core members of the seminar and the visitors—about ten people—were seriously engaged in one and the same great undertaking. There was an atmosphere of eager cooperation. Something very great was being built, and any contribution, however modest, was appreciated. There was room for all. Opinions differed, but then it was essential to ask, Is the difference serious? exactly how serious? Perhaps minor, perhaps all to the good: there ought to be no *Gleichschaltung*.

The next two features to be mentioned concern a central phenomenon: the character of communication in matters of philosophy and ideology.

Compared with terminology in, say, physics and chemistry, terminologies in philosophy tend to be vague, ambiguous, unclear. Or to be more precise, the words and sentences may be unambiguous and clear to the speaker (the “sender” of the communication) but not to the receiver. How did the seminar tackle the inevitable conflicts arising from this situation? Let me give an example.

A participant puts forth an opinion, using a sentence *T*. A second participant, probably thinking the opinion is not tenable, speaks up, “Würden Sie (würdest du) die Formulierung *U* akzeptieren?” (“Would you accept the formulation *U*?”). A special opening gambit was invented by the young Walter Hollitscher: “Das ist vielleicht nicht eine glückliche Formulierung . . .” (“That is perhaps not a happy [fortunate] formulation”). It is implicitly clear that the second participant puts forth *U* as an expression for the same formulation that the first participant tried to express by *T*. The first participant is *invited* to give his opinion about a somewhat different formulation that perhaps would make listeners better understand what he wishes to convey. It is mostly also implicitly suggested that if the first participant rejects *U*, the second would tentatively declare that *T* expresses for him an opinion he does not find tenable, but that what *U* expresses he can accept as a tenable opinion or hypothesis. If the first participant rejects *U* as an adequate expression, he may himself substitute *V*, a third sentence, for *T*, and the serious “game” would continue.

What struck me as *mustergültig* (worthy of being a model) about this

procedure was the effort not to declare *lack of agreement* until careful verbal investigation had eliminated the undesirable effects of terminological idiosyncrasies, *and* the choice of a conciliatory, building-up-the-other way of clarification. “I disagree” has a tendency to awaken defensive countermeasures, often leading to unfruitful discussions—even a hurt ego, or at least a lust to win an argument. A careful procedure makes it more likely that when disagreement is declared, it is a real disagreement, and an honest one.

The fourth communication feature I wish to mention is the care taken not to use that-sentences like “So-and-so has the opinion that such and such.” Such sentences imply unambiguity and the general, agreed upon clearness of the “such and such.” Instead, expressions like “So-and-so says *T*” and “So-and-so formulates his opinion this way: . . .” are used. It is not taken for granted that the group has already found an adequate expression of one and the same opinion.

(My later extensive use of the term *formulation*, rather than *sentence*, is probably influenced by the Schlick seminar!)

Now, the fifth feature of a way of communication in philosophy and ideology is the most radically important. We often search for words to express our thoughts. We imply that the thought is already there, but that it is difficult to find a completely adequate and accurate verbal expression. Perhaps less often, we wonder what exactly we meant, if anything, when we said such and such. The above-described features of communication in the Schlick seminar made it completely natural to doubt that we meant something very definite when we listened to our long strings of words. Fixing the attention on words, phrases, or sentences, but not that-sentences, made it easy to admit at least to ourselves that we were not quite clear in our heads—that we in a sense were only vaguely aware of what we might be talking about. Our talking was like our walking: we did it in the habitual, familiar way, practically like automatons. Very rarely did it reflect clear thinking.

Suppose the question is whether a theory in science can be falsified. Some of us were, so to say, instinctively opposed to the possibility of falsification in any strict sense, but what did we mean by “strict sense”? by “theory”? by “(practical, theoretical, empty) possibility”? If we were talking about what usually was classed as a physical theory, there were disconfirmatory instances—but what more? Every definite series of observation sen-

tences rests on indefinitely numerous assumptions that are not all—or perhaps none—strictly speaking verified. Did we ever mean anything definite by falsification of a theory? Karl Popper did not clarify what he meant—so it seemed to us.

The often unsuccessful search for what we ourselves meant by things we had said—perhaps said 100 times!—resulted in a kind of humility. How could other people, doing research with a completely open mind, assert that they knew exactly what they meant?

A few years later, I had the opportunity to talk seriously with one of the very few internationally well known Norwegian masters of mathematical logic—Thoralf Skolem. I asked him whether he was sure he knew *exactly* what he meant when he wrote in his articles that “this is now proved” or some similar phrase of the kind *quod erat demonstrandum*. To my great disappointment, he answered yes—after some hesitation, I admit. I thought the history of mathematics showed how it often seemed clear after some years or centuries that those who had proposed criteria did not realize that these were unclear, ambiguous, or, strictly speaking, not universally applicable. Fallibility seemed to be clear in questions of what one means by *proof* and by other central metamathematical terms.

Through experiments I later tried to assess the *definiteness* of intended meanings among students of the exact sciences. How did they interpret “The Earth is surrounded by a gravitation field” when they heard the sentence in a speech I gave? They were offered twenty interpretations. The answers I liked best were the *nescio*-answers, the “I do not know” answers. However, most answers (more than 150 out of about 200) revealed that the respondents thought they knew fairly well how they interpreted the sentence. The Schlick seminar certainly was apt to spur a lively interest in the limitation of human definiteness of intention. In philosophy and ideology it takes more courage, it seems, to admit this than it takes in the exact sciences. The reasons are not without interest.

These five features of communication can thrive only among people with a certain—what I am tempted to call—Gandhian nonviolent approach. One must be able and willing to look for interpretations that make one’s opponent reasonable, not just those that make him unreasonable, ignorant, or stupid. In the late 1960s, when seminars on philosophy of science were held with a strong representation of students of the Frankfurt school,

these members tended to think of discussion in terms of confrontation rather than cooperation. The Gandhian traits smacked of what they liked to call positivism. Carnap would have had no chance to be heard! It is easy to be mild and fair when you are not passionately involved. Carnap and others combined intellectual passion with a Gandhian approach to communication.

To my sincere regret I find today that nearly all of the most active participants of the seminar in 1934–1935 are dead or ill. Therefore, I shall now convey a selection of my impressions of the participants, using my own fallible memory as a guide. Because of my many new interests since the 1930s, I have not read the impressions that others have published.

About the established leader of the seminar, Moritz Schlick, I have little to say. Few of us had any access to his private life. We perceived him as somewhat distant and we called him an aristocrat. He did not talk very much. When a discussion led us into an impasse, he might ask, “What would Wittgenstein say here?” When somebody offered a quotation from Wittgenstein’s writings or from his remarks in seminars or private conversations, it was clear that only very, very clever interpretations could be accepted. Like interpreting Ibsen in Norway.

It was the expectation that at least Friedrich Waismann would have an answer to Schlick’s difficult question. He was the “leader in action” of the seminar, and we all acknowledged his expertise on that slightly mysterious subject—the (correct) Wittgensteinian view. He and Schlick were the only active members of the circle who would totally advocate and defend Wittgenstein’s view—when they thought they had grasped it firmly. The fearful question posed by Schlick normally was followed by silence at first. Then Waismann would answer, but tentatively and hesitantly. Once someone suggested that a letter should be sent to Wittgenstein; but Wittgenstein was enigmatic and not a character one could expect to answer straightforwardly. We did not know it then, but at that time he himself was painfully rethinking where he stood. This whole situation exasperated Waismann. Perhaps that was why I gradually came to see him as a tragic person, humble and not quite knowing how to handle his life and his position in philosophical disputes.

His seriousness and humility manifested themselves in a touching

way. I was going through an intense psychoanalysis at that time. My analyst, the well-known Dr. Edward Hitschmann, wished it to be a *Lebranalyse* and arranged to send me to Pötzel Psychiatric Clinic wearing a doctor's outfit and being introduced as "Dr. Naess from Norway." One of "my" patients was a highly educated woman who, prodded by my scepticism, defended for hours and hours the view that President Franklin Roosevelt had tried to poison her. She brilliantly defended her system—it was truly impressive. Speaking as we often did in the seminar about coherence, I said in a private talk with Waismann that a paranoid schizophrenic seemed to satisfy the ultimate requirements of coherence better than he did. There was no smile on Waismann's face. Yes, he said, but then he wandered into difficult, seemingly depressive trends of reflection. Of course, I did not seriously mean what I said: if Waismann had been in bed with nothing else to do but answer my question, he would have managed to be very coherent, even in the formulation of a sophisticated methodology that gave room for extensive doubt and uncertainty. My patient had no doubt in relation to a long series of coherent arguments and conclusions, but that did not imply superiority. She had a definite dogmatic system at her disposal, whereas Waismann was basically bewildered, but not less coherent from a systematic point of view and certainly more coherent from a metasytematic viewpoint.

Schlick and Waismann were of a different generation than I, and I had more informal, daily interaction with some of the younger active participants.

Among the prominent young members of the seminar was Joseph Schächter. His work *Prolegomena einer rein kritischen Grammatik* contained views that were considered rather un-Wittgensteinian. He also had difficulties with "proper" appreciation of Russell and his "material implication."² It was not easy for him to publish his manuscript. I found his position unenviable. In the same category was the Polish-German logician and philosopher Rose Rand. She, like the others, considered Wittgenstein to be a genius, but she was of the opinion that he nevertheless was unable to express his opinions adequately. The style of the *Tractatus* she considered to be a manifestation of helplessness rather than of deliberate choice. Later she gave lectures on Wittgenstein at Cambridge, but her consistently hypercritical comments contributed to the termination of her teaching. She also

suffered a serious nervous breakdown. She liked to talk to patients in the Pötzel Clinic, considering herself a borderline case.

Listening to Schächter, Rose Rand, and others, it was understandable that I developed an ambivalent attitude toward the texts of Wittgenstein. Gottlob Frege and the Wittgenstein of the *Tractatus* seemed to belong to a vastly different tribe than that of Malinowski, my hero in the philosophy of language. Wittgenstein was a genius, but what follows from that? Nothing.

Outstanding in the clarity of his statements in the seminar was a man only a couple of years older than myself, I presume: Walter Hollitscher. His contributions to the seminar were always short, firmly expressed, and wonderfully clear. The prevailing view of the importance of language for philosophy got a marvelous expression. He invented the phrase “Es ist in der Sprache nicht vorgesehen” (“It is in language not foreseen”). The tendency that he opposed was to declare certain questions or answers in philosophical literature meaningless, and to bolster this view by recourse to beliefs in certain fundamental traits of syntax or semantics. Language could not be used for the purpose some philosophers had in mind. The philosopher pressed the language beyond or below its capacity. New theories of previously unheard kinds could be formulated properly, for example, that of general relativity, but there were limits that could not be transgressed without meaninglessness as a consequence. Hollitscher was remarkable in softening the “meaningless” dogmatism. More strange than remarkable was his ability also in managing to a large degree to combine membership in the Austrian Communist Party with a complete rejection of dialectical materialism—as *sprachlich nicht vorgesehen*—in its main features. On the other hand, he found hope for psychoanalytical theory. It could be reformulated in a scientifically acceptable terminology. I have talked about Walter Hollitscher at length also because he represented so well the high ethical standard of the discussions. However, he did not publish much, remaining in the background.

Whatever my philosophical disagreement with some of the main tendencies in the seminar, I wished to learn as much as I could from the proceedings in which I participated, and I was treated on a par with the others in spite of my dissonant views.

In the circle was a young man, Tscha Hung, from a country even farther away than Norway. Always cheerful and well-meaning, he showed in his attitude a deference, even a humbleness, markedly different from my

tendency to be as interested in proclaiming disagreements as noting agreement. His lifelong attachment to Moritz Schlick and Schlick's point of view I found and still find touching. This is not to underrate his independent thinking and achievement as a professor in Beijing in making the analytical trends known in China.

It was a habit of circle members to meet for hours in one of the cheap coffeehouses. There the discussion was even more lively than in the seminar. It was not easy for me to break into these fast-moving discussions. Sometimes I would suddenly and unexpectedly just say "Im Gegenteil" ("On the contrary"). There would then be a second's astonished silence and I could proceed at leisure. It was typical of the atmosphere that my youth was not at all an obstacle to complete recognition.

The seriousness, honesty, and persistence of Carnap in debates I had with him in Vienna and later in Los Angeles, where I stayed in his home for some time, left a profound impression—perhaps especially because he practically never found any reason to change his opinions on any matter whatsoever. He tried his best to follow my way of thinking, even if he did not expect to profit from it in his own research. He never showed the slightest impatience. (I did.)

On special occasions the core members of the Vienna Circle discussed the plans of the forthcoming International Congress for the Unity of Science. Here Otto Neurath was the central personality. He looked upon Carnap as highly impractical and excessively fond of long, logical derivations. Moreover, he viewed logical sophistication somewhat cynically, declaring that Franciscan monks were excellent logicians, implying in a sinister way that perhaps formal logic could accommodate Catholicism better than it could accommodate the scientific attitude. I shall not go into what was happening at these high-level conferences. The last one that was planned—to take place in Oslo in 1940—could not be realized because of World War II. Otto Neurath applied to the Norwegian authorities for residence in Oslo but was rejected by an anticommunist official at the Norwegian immigration office. What a shame! I shall now leave the account of personal experience and proceed to more abstract matters.

When I interpret a philosophical text, my point of view is that of a lawyer interpreting a will. Grammatical failures, strange uses of words, mis-

spellings do not count when one tries to find out exactly what the author of the will intended to convey in his will. If he calls his wine cellar the library, that is okay, if it can be established that this was the habitual way of talking in his family. Similarly, if a philosopher has strange ways of expressing certain opinions, one of the tasks of the historian of philosophy is to try out reformulations better suited to present his or her opinions. On the other hand, we may look upon the text as a musical or mathematical score and see which interpretation might be most interesting given certain purposes. The later texts of Heidegger, for example, have been freely interpreted by some environmentalists and found very useful. The logical empiricists, however, were too attracted to the exploration of one definite model of language, namely calculi with sets of formation and transformation rules, to be interested in the more empirical investigations of philosophical texts as presenting ordinary ways of talking. The ordinary ways are full of metaphors, pictures, unscientific phrases—as are those of philosophers through the ages.

Carnap seemed to accept a presupposition that he had philosophically adequate knowledge of what ordinary words and sentences of his mother tongue meant, including the words *true*, *probable*, and *certain*. Or at least he presumed that we have sources within ourselves of such knowledge: by painstaking reflection we should be capable of formulating that knowledge clearly. Some of it would be, in psychoanalytical terminology, *vor-bewußt* (preconscious). It can be made conscious without being hindered by forces of psychological repression.

The American philosopher Charles Morris embraced a sort of empiricism that offered logical empiricism a kind of alibi. He introduced the term *pragmatics* so that he could point to a trilogy: syntax, semantics, and pragmatics. What I was doing, Carnap said, was pragmatic, and he seriously wished me success, placing me in that coffer. What Morris was proclaiming, however, was empiricism, not pragmatism. I used social science methodology to investigate the various usages of *true*, *certain*, etc. For example, I offered subjects ten glasses, saying that they contained weak solutions of certain well-known substances. Could they please tell me what they smelled? “Are you certain?”, “Are you absolutely certain?”, “Do you truly smell anything?” Their answers were made starting points for an interview in which they copiously used the terms *true*, *certain*, etc.

Actually what they strained themselves to smell was pure water (which

was still available in Norway in 1936). How could the logical empiricists boast about a scientific attitude when they relied so much on intuition when speaking about the use of words?

If one is thoroughly imbued with respect for spontaneous experience in its immense richness, then it occurs to me that the interpretation of a text should be much more difficult than it seemed to be for Carnap. The words and sentences of our mother tongue have been judged vague and ambiguous since the time of Aristotle. Therefore, any texts that make use of daily-life vocabulary or define words in terms of everyday vocabulary will be open to a variety of significant interpretations. Being very much impressed by, and fond of, the Latin text of Spinoza's *Ethics* from the time of my school days, I did not entirely look down upon vagueness and ambiguity, and I thought that when we interpreted a text, we should formulate different *tentative* hypotheses about what the author might have intended to say. I did not believe that the members of the circle really had the preconscious knowledge they thought they had according to their fundamental presuppositions. Social science methodologies were needed.

Carnap willingly and patiently talked with me about this. I have never again had the opportunity to meet anyone with such wide learning and such basic humility. Somehow, though, he retained the conviction that, in the last analysis, his own interpretations were at least the only philosophically important ones. This was especially evident when it came to assessing the significance of Alfred Tarski's truth theory. This theory was an astounding victory of symbolic logic with great consequences for formalization. It mostly hits the nail on the head when one asks for precisizations of the sentence " x is true" when x belongs to the assertions of a scientific text. It has been popularized through the following: "the sentence 'It rains' is true if and only if it rains." Carnap admitted that there was of course an important way of using the word *true* that was not covered by Tarski's definition. One could say, for example, that " x is a true friend." Then, however, one could also form an application of Tarski's theory: " x is a true friend" is true if and only if x is a true friend." By chance my master's thesis was about various usages of the term *true*, and for me it was important to stress that Tarski's definition applies clearly only to a subgroup of occurrences. Moreover, other groups are important in scientific texts, and relevant to pertinent philosophical questions focusing on the term *true*. Tarski himself ac-

knowledgeed later on a postcard he sent me that I might be right in what I said, but that his theory did not necessarily pretend to cover more than one way, a fundamental way of using the term from the point of view of logic.

Carnap detested Heidegger both for his politics and for his literary style. I agreed. One of the sentences that provoked him was the notorious “Das Nichts nichtet.” I said that Heidegger perhaps intended to assert something fairly definite by this atrocious utterance. Carnap repeated again and again that if (and only if?) Heidegger had stated his rules of formation and transformation, the sentence would be acceptable as meaningful. In philosophical texts, however, there is an abundance of “unacceptable” but potentially meaningful sentences.

I am today tempted to refer to a famous sentence of the relativist J. A. Wheeler: “matter tells space how to curve, and space tells matter how to move.” What would Schächter and Walter Hollitscher say about this sentence? I might suppose Schächter would say that the sentence violates logical grammar; Hollitscher, that *es ist in der Sprache nicht vorgesehen* that matter and space tell anything whatsoever. The supposition is wrong, however. The sentence is obviously meant metaphorically, and Wheeler can point to a certain set of equations and say, “This is what I mean in all seriousness. Any complaints?” Because general relativity enjoys top scientific status among the logical empiricists, they would treat Wheeler politely. To compare a Wheeler sentence with a Heidegger sentence would be seen as tasteless.

Empirical research might end with the tentative hypothesis that Heidegger did not mean to assert anything through his famous sentence, but that would only be one hypothesis among others. Carnap agreed to that, but did not find it very interesting. Roughly speaking, Carnap did, but I did not, believe in *Die Wende der Philosophie*, the syntax-oriented turn of the philosophical tradition. Carnap would listen patiently, but later, when I had included a description of his and of Heidegger’s philosophy in one and the same volume, he would complain seriously, as if it were an unfriendly gesture on my part. How could I, as an old friend, do him such an injustice? For Carnap, Heidegger was not only both philosophically and politically abominable, but also expressive of an influential and deplorable cultural trend. Carnap continued to write within his frame of thought but expressed his belief that I should continue my empirical investigations.

The younger generation was headed, one may perhaps say, by Carl G.

Hempel, another superbly clear philosopher with rare pedagogical talent. At an International Congress for the Unity of Science his elegant, formal-logical lecture was greeted with applause worthy of a great artist. A Polish logician contributed with logic on a high formal level, devoting most of his time to sophisticated, but microscopic, issues of notation. The trend was not going in the direction of combined logical and empirical research. Why exactly should very special formal-logical investigations be considered more important in philosophical research than empirical investigations? Neurath was slightly apprehensive; I was genuinely sorry. The task required the combination, and also the application to crucial social and political conflict analysis.

Otto Neurath was the leading spirit in what might be called the movement of logical empiricism. It is sometimes forgotten that analytical trends in philosophy after 1945 never had this color of a movement. That includes the groups around Willard Quine.

It is well known that Neurath liked to compare the trend from Ernst Mach to the Vienna Circle and then to the international logical empirical perspective with stages in the development of the movement around the French Encyclopedists. It was therefore natural that he should propose a kind of encyclopedia, the onion-shaped *Encyclopedia of Unified Science* demanding the collaboration of hundreds of people.

In a social movement, the moderate level of preciseness that Neurath represented, but Carnap disliked, would be absolutely necessary. The encyclopedia would have to be understandable to a fairly large sector of the population. It would not be enough to reach only people with very high formal educations. Neurath introduced a word that I found important: *Ballungen*. In English, one would perhaps say "sticky formulations." They could be interpreted in slightly different ways, being in some sense elastic and adaptable to a variety of situations. It is a pity that the concept of *Ballungen* was not taken more seriously within the movement. It may have inspired my term *point-of-departure formulation* (T_0), the "target" of different analyses.

Carnap, of course, had no taste for *Ballungen*. He preferred to jump from the vague and ambiguous to the superbly precise and rest there. Neurath was elastic, proceeding from the vague and ambiguous as point-of-

departure formulations to more precise ones and back again. Every very precise analysis or reformulation leaves something out. Not a single more precise formulation would do in the long run, only a set of them: T_1, T_2, \dots, T_n . At least this is how I believe I may have interpreted him.

An eminent psychologist, Egon Brunswick, roughly agreed with the main position of logical empiricism, and eventually it was decided that I should, together with Brunswick, write on psychology as a science. It turned out, however, that we disagreed about how this should be done and I left the task to my friend Egon. The organization committee of the encyclopedia was not sufficiently strong to press the authors of the monographs to complete their contributions. Nor did the authors agree on how to spell out "the foundation of the unity of science." This seems to me to be one of the many reasons that "the second volume of the Encyclopedia ran into many difficulties, and . . . the studies by Federigo Enriques, Jan Lukasiewicz, Arne Naess, Louis Rougier, and Louis Wirth never appeared" (Morris 1960, 520). Such people are not easy to handle and be made to work together! They had been persuaded to write monographs but were not quite clear, I suppose, on exactly how to proceed. I am sorry to say it, but Neurath's plan for an encyclopedia ultimately consisting of 260 monographs in twenty-six volumes plus a ten-volume *Visual Thesaurus*, although splendid, was quite unrealistic.

Diderot, in the "period of enlightenment," found the time ripe for his twenty-six-volume *Dictionnaire raisonné des sciences, des arts et des métiers*. The economic and sociological insights of Neurath did not suffice to make him (or anybody else) see the time ripe for a second world war, a sterile Cold War, a mindless consumerism, with resulting waste of resources, and a population explosion threatening the richness and diversity of life on Earth. Being already heavily influenced by Mahatma Gandhi's nonviolence and metaphysics, I did not find Neurath's vision too ambitious. Dr. Hitschmann gave me articles that Neurath had published, one with the dedication "To Arne Naess who wills the great (*dem Großen Wollenden*)." Later my German colleagues called me what I cannot translate: "*der norwegische unverbesserliche Weltverbesserer*." If Neurath had lived on for another twenty years, we could have worked together in the peace movement. We largely understood each other. Even his notorious *Index verborum prohibitorum*—asking us to refrain from words suggestive of subjectivist metaphysics—I

found acceptable in spite of my wise friend Philipp Frank's exasperation and ridicule.

Looking back, I feel sorry that the combined analytical and social initiative of the logical empiricists petered out. It constituted in the 1930s a cultural force and a threat against fascist and authoritarian regimes in general. The authoritarian Austrian government did not underestimate this threat, and the newspapers—which on the whole were on the authoritarian side—expressed relief when Professor Moritz Schlick was killed on the doorstep of the university. Logical empiricism was proclaimed to be a blot on Austrian culture. I was asked to protest against this in Scandinavian newspapers, but I regret today that at that time I did not feel able to engage in public debate. When Quine and others took over the analytical leadership, the movement was largely robbed of its social and political aspects. Applied logic suffered. At a meeting in one of the branches of New York University I gave a talk with the title “Why has logic made so little progress in this century?” In the audience were some of the most creative symbolic logicians. What I meant was, Why has logic as a social enterprise made so little progress in social and political debates? The logical empiricists took applied logic seriously. In addition to the personalities I have mentioned in this connection, Zilsel must be remembered. After the hot war, that is, during the Cold War, and during the Vietnam crisis, applied logic seemed to be looked down upon by many eminent logicians. Applied logic was conceived as inherently second-rate and also unphilosophical insofar as it often required empirical research, for example, investigation of political slogans and political argumentation patterns. There was a tendency to stay away from the use of social science techniques in the investigation of actually occurring transitions from premises to conclusions. The International Congress for Unified Science in Oslo in 1940 would presumably have dealt extensively with such theses, which both Neurath and I considered crucial: the empirically relevant issues. It would have included a variety of applications of logical analysis, but it would scarcely have changed the general direction of development within logical empiricism.³

The logical empiricists were broader and deeper in their outlook than in their professional philosophy! Or, to be more careful: what was likely to be

the picture of their philosophy internationally was that of a somewhat narrow, spartan, pedantical, and cold kind of—metaphysics. They were to be conceived as *Lichtlöscher* (light extinguishers), restraining the human spirit: basically positivists akin to Auguste Comte, devoid of imagination.

From the point of view of the history of ideas, we can now see that the “antipositivist” current was stronger both before and after the war than the current of enlightenment that the logical positivists tried to help gain power. Neurath’s planned twenty-six-volume encyclopedia had to remain a dream. “Had to”? Of course not interpreted as historical necessity, but if we compare the conditions prevailing at the time of the multivolume French encyclopedia with those of the pre- and postwar years, Neurath’s chances were close to nil.

During the Cold War there was a strong—but not strong enough—“third way” that brought some people all over the Western world together. The personal philosophy of the logical empiricists was well adapted to the main tenets of the third way. Their philosophy as judged from their writings and even their preferred way of speaking was counterproductive, however. They succumbed too often to an unpalatable “scientific” jargon, using a metaphor, “Unified Science,” as a core slogan. (Why “unification”?) Their dream deserved a less narrow slogan. Their younger generation had little chance to make headway on the great international scene, and they were perhaps less strongly motivated to fight.

How can I speak with confidence about the contrast between their narrow professional and their broad and deep personal philosophy? What are my credentials? I have one: my experience; the way I was accepted in 1934, and the way I was invariably treated later.

I entered the shabby seminar room of the Schlick seminar in 1934 with a peculiar philosophical background. When I was seventeen I had become deeply fascinated by both Spinoza’s *Ethics* and Whitehead and Russell’s *Principia Mathematica*. It was impossible for me not to talk and talk about those texts. The first chapters of the *Principia* were enough for me to become a friend of symbolic logic and a permanent user of *simple* propositional and functional calculus—even using it to make Spinoza’s conceptual structures clear to me. The *Ethics* has remained for the rest of my life the supreme paradigm of philosophy. There has been no *Wende der Philosophie* since the *Ethics*! In philosophy of language I appreciated Ogden and

Richards's *The Meaning of Meaning* and was completely charmed by Malinowski's view. The essence of his view—using *Ballungen* here—may be suggested through these formulations: “You mean speaking? Just fragments of behaviors (*Verhaltensweisen*).” Imagine two people in a canoe—preferably Polynesians—one rowing, the other catching fish. Working together, they use mainly one-word sentences, rarely descriptive, mostly with strong signal function. The scientific way of talking has basically this function, I thought. Pure descriptive function does not exist. I was, in short, a member of what was called “the Malinowski tribe,” applying his view to both the *Ethics* and *Principia Mathematica*. From William James's *The Varieties of Religious Experience* I learned a wide sort of empiricism. One should not take offense when people use terms like *God*, *substance*, and *immortality*. They could be translated in many ways, and important experiences elicited the use of the terms.

It was an unforgettable experience how Carnap reacted when I provocatively said that in the debate between James and Russell, James was nearer the truth. Did I spit in a church? Carnap looked seriously and inquiringly at me as he slowly answered, “Y-e-s? Do you think so?” Insofar as I was in a church, I was in a widely compassionate one. Most of what I said and obviously really meant, but which was not appropriate to say in their jargon, Carnap and Neurath found not only palatable but consistent with their philosophy at a deeper level. Russell revered Spinoza; Carnap and Neurath were less positive—they did not see a way to interpret the bulk of the formulations of the *Ethics* so as to make them consistent with their daily professed methodology and epistemology. In a way they envied me. Of course, Malinowski's view as “pragmatics” was not only legitimate but of great importance. Go on with your investigations, they would say. When they invited me to write a monograph on psychology, they completely trusted that it would fit in well with the encyclopedia. My first draft was very tolerant toward many contemporary competing “schools” of psychology. Later they invited Egon Brunswick to join me. He was at the time completely absorbed in working out a sophisticated conception of psychology *vom Gegenstand her* (from object), and we could not agree about the content of the proposed monograph. He would naturally concentrate on his way of conceiving psychology, a way that admirably deepened the “logical behaviorism” of the Vienna Circle. Nevertheless it was too narrow for the ency-

clopedia, I suggested. We were close friends, however. I have never laughed so much with a basically suicidal personality. Our only conflict arose when I insisted on living outdoors in sleeping bags with my wife just above the Berkeley campus where he was professor. "A foreign scholar *cannot* live in the bush!" We were civilized, I explained, and we went down to the campus each morning to take showers. *No*, we had to rent a house. Unfortunately, Egon had problems with his nerves and had a central European acoustic sensitivity. He had to rest from about 2 P.M. to 4 P.M., but there were certain noises in the long corridor of the Psychology Department that he simply could not stand. He would rush to the door of his office and shout "MUST you whizzle Bach!"

These are perhaps details that are unnecessary to mention? I think not, because we who are admirers of the Vienna Circle of the 1930s and the logical empiricists should more often remember that there was a prominent, internationally acclaimed psychologist—and lovable personality—who felt closely related to logical empiricism, and who developed a system that immensely improved its "logical" behaviorism.

My *Erkenntnis und wissenschaftliches Verhalten* could also be used by logical empiricists, but it was more "speculative" and also basically empirical, not logical. The thesis of this work was that every scientific content of knowledge can be described in terms of behaviors (intentionality being inherent in *Verhaltensweisen* as conceived by E. C. Tolman, Egon Brunswick, and myself). However, such a behavior model of scientific knowledge is only one model; there might be indefinitely many other models with, in principle, the same level of adequacy. The "subjectivist" model cannot do the job alone because it does not transcend the behavior-consciousness dualism. The contents of knowledge cannot be adequately described in terms of states of consciousness. *Erkenntnisinhalt* cannot be separated from *Wissenschaftlicher Tätigkeit*. Each *Verhaltensweise* presents a synthesis, and internally relates the two inseparable aspects. Spinoza again!

It was a pity that I met neither Hans Reichenbach nor Edgar Zilsel, about whom I had heard so much. What I could understand of Reichenbach's philosophy of science appealed to me. One of the most enlightening opinions I construed him to have, I thought I could formulate as follows:

EMPIRICISM, POSSIBILISM, AND PLURALISM

Of course, creative scientists need mythology as do all creative people, and therefore also they need metaphysics, but the use is heuristic. Where scientific results are obtained, the myth can and should be peeled off. The next generation will need different myths!

Ending my personal account, I wish to express my feelings of sympathy both for the logical empiricists as immigrants in the United States and for their new friends who did what they could to relieve their pain. Their capacity to adapt was undeniable, but it had its limits. The tragicomic story Egon Brunswick told me should not be forgotten. The eminent linguist Karl Bühler (who especially through his “Bühler girls” kept a healthy contact with logical empiricists) had big and small difficulties—he could not, according to Egon, always clearly hear the difference between *d* and *t*. This conversation ensued. *Egon*: “As a famous European scholar and teacher of language you *must* not say Kenducky, you must say Kentucky!” *Karl*: “But that is what I say! I say Kenducky.” *Egon*: “No, no! I mean yes, yes, you say Kenducky. Say Kentucky!” *Karl*: “But Egon, *Lieber*, I say . . .” and so on.

It is for Austria and for the rest of the world a good thing that the works of the logical empiricists are now studied with care and renewed interest. It is a special joy for us who knew them personally to see this happening.

The Spirit of the Vienna Circle Devoted to Questions of *Lebens-* and *Weltauffassung*

Attitude Toward Research and Cooperation Within the Vienna Circle

The history of the Vienna Circle is bound up with what was called the *Wissenschaftliche Weltauffassung*. Given, however, the requirements of the members when it came to deciding whether or not a sentence expressed scientific knowledge, the basic sentences expressing a *Lebens- und Weltauffassung* would scarcely qualify as such, nor would hypotheses about a scientific worldview. The *Wissenschaftlichkeit* of physicalism, logical behaviorism, logical syntax, unity of science, were hypothetical at best, and in my opinion should not be identified with the total philosophical enterprise of the Vienna Circle. To its strictly speaking *philosophical* enterprise I attribute a certain kind of scientific or research *attitude* and *clarity* as much as any set of philosophical opinions of a substantial sort.

As I see it, the members excelled in clarity and in fairness and collaboration in debates. These characteristics they, like myself, found most effective and ethically acceptable among ardent “scientific” researchers. More-

Arne Naess’s contribution was read to the symposium “Wissenschaft als Kultur—Österreichs Beitrag zur Moderne,” organized by the Vienna Circle Institute as part of the “Focus on Austria” of the 1995 Frankfurt Book Fair. The German contributions were published in *Wissenschaft als Kultur: Österreichs Beitrag zur Moderne*, edited by Friedrich Stadler, vol. 6 of the *Veröffentlichungen des Instituts Wiener Kreis* (Vienna and New York: Springer, 1997).

This article was reprinted with permission from *Game Theory, Experience, Rationality*, edited by W. Leinfellner and E. Köhler (Dordrecht, Netherlands: Kluwer Academic Publishers, 1998), 359–67.

over—and this was unique in Europe—this admirable way of communication, of collaboration among very different personalities from widely differing backgrounds—was applied to philosophical problems.

I wrote about the above-mentioned aspect of the Vienna Circle a couple of years ago.¹ Here I shall mention again only the circle's excellent technique of offering various formulations of a view in order to arrive at clarification of disagreements and agreements. A typical question in a debate was, Would you accept that one could express the view you have by the sentence S_2 rather than S_1 ? In my work within the realm of what I call total views, comprising the classical questions of *Lebens- und Weltauffassung*, I have been heavily influenced by what I personally experienced in the Schlick seminar in 1934 and 1935.

The term *total* ought to have a bad reputation in politics, but I am speaking of views: explicit *but mostly implicit*; both normative (How do you think you *ought* to live?) and descriptive (What are the basic features of the conditions of your life and life in general in what you think is reality?)

This kind of sentence was used when someone thought he disagreed with a speaker but saw a *possibility* of agreement if the speaker could accept a different formulation, S_2 .

In trying to express fragments of total views in systematic form, we need to make clear which statements are meant to be declarative and which normative. Accordingly, I place an exclamation mark at the end of sentences intended to express a "norm," in the sense of announcements that something ought to be, should be, etc., and imperatives of various kinds, *including rules*. A system containing at least one sentence with an exclamation mark, I call normative. Thus, a small, central part of my total view is expressed, mainly for didactic reasons, in only one philosophical sentence with an exclamation mark: the one-word sentence "Self-realization!" From the basic philosophical normative sentence "Self-realization!" *plus* a host of declarative sentences, conveniently called "hypotheses," I derive new norms.

One of the reasons that the Vienna Circle tended to dislike what I call total views is that it associated them with claims to absolute certainty and to dogmatic truths. To hold a total view, however, is compatible with being a sceptic, at least a sceptic of the Pyrrhonic kind: maintaining an *epoché* in relation to every absolute certainty or dogma.² It is normal to retain

certain basic attitudes year after year but to change some opinions practically daily.

Why shouldn't analytic clarity and the research attitude be applied in what I always have taken seriously, namely, most general orientations, and their manifestations in conflicts?

The Status of Basic Views on *Life and World Until Now*

Until the twentieth century *Lebens- und Weltauffassung* belonged to the central part of academic philosophy, and certainly to "philosophy" in a more general sense. Diogenes "in the barrel" expressed himself mainly through nonverbal behavior. He did not offer long, difficult arguments in favor of his *Lebens- und Weltauffassung*. This is one of the reasons that he is not accorded as many pages in textbooks of philosophy as are some of the other classical Greek philosophers. He is scorned as an academic philosopher, but nobody—and this is important for the current argumentation—contests that he was a philosopher.

In the great cultures of the East, in India and China, philosophy of life, of society and the cosmos, had an important function, and if we look up the names of the main figures, until recently, we are reminded of great teachers of how to live, and how not to live. Science did not play an important role.

What is the status of *Lebens- und Weltauffassung* today? The question comprises both academic and nonacademic philosophy. My answer is not uncommon and not original: the concern in academic philosophy is feeble, *sehr schwach*, but among people and in social debates, rather strong and getting stronger.

Sources of Currently Increasing Interest

The concerns that stimulate life- and worldview reflections today, especially in the *materially* richest countries, are widely recognized as important. Here is a short summary.

The movement from *Gemeinschaft* to *Gesellschaft*. Ferdinand Tönnies published his famous book contrasting *Gemeinschaft* and *Gesellschaft*, community and society, about 100 years ago. We live in a community when we have a positive feeling of having much together, being much together, do-

ing much together, occasionally helping one another. Now we, in the rich countries, live in a mere society when there is a system of rules binding people together in a more mechanical way: a common forum of decisions affecting competing group interests. I might call these societies pressure democracies, wherein powerful pressure groups protect vested interests and a police force, rather than a father, sets limits.

One may question whether we in the earlier twentieth century had much *Gemeinschaft*. In Norway we had a class society, but more than 80 percent of the population lived in rural communities with a high degree of community. The important point is that the direction of development seems to be toward less and less community: toward individual *autonomy*, even within families. One should not rely on help; one needs no assistance; rely on psychiatrists and other functions of the state. Autonomy is clearly different from former ideals of individualism.

Another new term is *entrepreneurial culture*. Society must be organized in such a way that entrepreneurs enjoy better conditions for the realization of their ideas. What kind of ideas? Any noncriminal designs, it seems, but with emphasis on economic growth and competition.

Closely connected with concern about the disappearance or decrease of community is, of course, concern about mindless, physical violence: violence seemingly lacking motivation. What we conceive of as fellow human beings are not always seen as such, but as mere objects. There is also concern about criminality in general: the United States is leading the way with more than a million people in prison, a kind of place generally recognized as not highly conducive to change of lifestyle.

Then we have concerns of a philosophical kind, about mass media and the global force of advertisements now estimated "to cost" about a trillion U.S. dollars annually. Mass media are ethically, if not neutral, at least pressing for the least possible interference by any norms of an ethical and educational kind, and pressing for increased societal dependence on markets.

Many perceive a resulting threat of *Gleichschaltung*, a decrease of deepness in cultural differences, an increase of standardization in spite of a multiplicity of tiny subcultures, especially in rich, great cities.

I now go back to the question of advertising. The private producers of goods and services on the market very naturally try to increase their sales and cannot be supposed to distinguish needs from desires, a philosophically

important distinction. The great thing is to create what people *feel* to be needs. It is now recognized that growing material so-called needs increase ecological unsustainability. Because I have worked for more than twenty years in this problem area, I shall go into it in some detail.

In 1972 the Club of Rome published its important *Limits to Growth*. In 1992, two members of the group, Meadows and Jørgen Randers, wrote the sequel *Beyond the Limits*. It is an even more important book, showing with a great number of diagrams that curves that should go up actually go down, and curves that should go down, go up.

The turn from increasing to decreasing unsustainability is not yet generally recognized to require in the rich countries a formidable change in average lifestyle. In addition, the rich countries must try to inhibit the increase of the material standard of living occurring in Southeast Asia, China, and other parts of the globe. Even if the rich nations succeed in this, the impact on ecosystems by, say, the 800 million richest people may surely reduce the richness (abundance) and diversity of life on Earth.

A new philosophical situation has arisen in the last part of the twentieth century. We have to take into consideration five warnings:

1. Ecological unsustainability is increasing.
2. People in the rich countries live (on average) in a way in which they cannot seriously wish that others, who would also like to live that way, will actually be able to live.
3. Decreasing the growth of unsustainability implies decreasing material standards of living in the rich countries.
4. Most of the cost in work and money necessary to change from increasing to decreasing unsustainability must be furnished by the rich countries.
5. Any delay increases the cost exponentially.

In 1998, the Worldwatch Institute roughly estimated the cost of a change from increasing to decreasing unsustainability: about 17 percent of the sum of global military investment at the time, \$149 billion (American) a year. Today (1999), a rough estimate may have reached the sum of \$200–250 billion. It is a vast sum, but not overwhelming.

A concept introduced by Immanuel Kant deserves close inspection to-

day. It is found in one of his early works, and few people seem to be aware of its existence. It is a concept of a *beautiful* action as essentially different from a moral action. An action is moral if it is *only* motivated by respect for the moral law. If we do exactly what is required by that law, but out of some other inclination (*Neigung*), then we do not act morally. Kant then goes on to say that if we act so as to satisfy the law, but also out of positive inclination, then we act *beautifully*.

Who would not like to act beautifully? From the point of view of ethics, as many of us see the situation today, the way to proceed in overcoming the great evils is not to preach but to find ways to describe the goals and the means to those goals so that they are *attractive*. This is difficult, but not impossible.

The five warnings are of a character that requires philosophical reflection along predominantly new lines.

The worldview, the *Weltauffassung*, centers on our world, conceived as our planet *Earth*, not the cosmos. How do we personally experience our participation in changing the life conditions on the planet, the rapid decrease of biodiversity and animal abundance and habitats, the increase of the domination of human beings over increasing areas of the planet? How do we experience the present social and political incapability to meet the challenge?

What kinds of ontology, epistemology, and ethics are conducive to strengthening the motivation of large-scale measures to ensure a change from increasing to decreasing unsustainability?

Also from questions essentially having to do with our *Weltauffassung*, we are led to questions of *Lebensanschauung*: in the rich nations, how to apply slogans like “Rich life, simple means,” that is, means requiring less use of energy, less polluting, less waste, etc.; in the poor countries, how to increase the material standard of living but avoid development in the direction adopted by the rich countries—in short, how to implement the increase by “leapfrogging” the way leading to the rich countries’ unsustainability.

Of the many contributions to what sometimes are called ecophilosophy and ecosophy I might mention the concept of the ecological self. As far back as Aristotle (in the West) we have declared humankind to be “special animals,” or better, “social living beings.” Human beings are, from one

very special point of view, highly mobile parts of the surface and lower atmosphere of our planet: they are the only parts that somehow perceive all other parts and appreciate them.

An extremely important, more or less spontaneous process is that of *identification* with other forms of life, that is, a perception of animals as in some ways like us, a perception that one can do something for their sake, that they, like us, have needs and interests. Philosophy of life has now a new social and political impact. Those who strongly appreciate life on the planet and strongly identify with animals and plants, whether those life-forms are in a narrow sense useful or not, are active in the effort to change lifestyles, institutions, and politics in the direction of sustainability. Important also is that they look for a gain in quality of life whenever possible from every step toward responsible ecological policy and are willing at any time to give up much of the typical rich country's goodies.

Green politics, with a capital *G*, is only one point of so-called ecosophies, total views in part inspired by work in favor of overcoming the ecological crisis. One may, of course, be an activist in Green political contexts without referring to, or being motivated by, a philosophy of life or worldview. Those who do have such a worldview, I call supporters of the deep ecology movement. Deepness is in this context defined in terms of chains of premise-conclusion relations. The supporters are in part motivated by their ultimate premises, their ultimate norms, and their descriptive views of the world. In short, they involve their *Lebens- und Weltanschauung*.

Why did not conditions lead earlier in the twentieth century to a philosophical awakening? One factor was a focus on language rather than on life, society, and the world.

The detrimental focus on language started explosively with Wittgenstein's *Tractatus logico-philosophicus* and logical empiricism. According to Rudolf Carnap, human systematic knowledge was, roughly speaking, of two kinds, the scientific and the syntactic. Questions of philosophy were in part reduced to logical syntax, in part dismissed as cognitively meaningless but emotionally important. With *Tractatus*, questions of value, of normativity, of ethics, and therefore also of politics were shoved into a sphere of mystery. There was no place for philosophical *research*. In the 1940s the anti-research attitude was consolidated with Wittgenstein's *Philosophical Investigations* and the ordinary-language movement. Empirical *research* on lan-

guage was shunned or deemed philosophically unnecessary. It was felt that intelligent reflection and intuitions concerning one's own language should be enough to solve, or dissolve, traditional philosophical problems. This trend is, if no longer dominant, very much alive at the close of the century. Philosophy professors still talk in terms of "getting the fly out of the bottle," that is, through considerations of language to set people free from warring about what were, for more than 2,000 years, considered to be great, universal philosophical problems in both the West and the East.

Less serious, but not without influence, is a quasi-philosophical trend that tries without much success to undermine belief in value priorities and the search for truth. Its adherents scorn any broad and deep movement that attempts to come nearer to solutions of great problems: of peace; of unacceptable, desperate poverty and oppression; of the ecological crisis. Instead of systematic approaches, we should limit ourselves to small narratives and cultural conversations!

So far I have talked about *Lebens- und Weltauffassung* in general terms. Now I shall exemplify what I mean by pointing to Spinoza. This thinker was venerated by members of the Vienna Circle, but the tendency was to consider his problems, insofar as they were real, to belong to psychology and the social sciences. I call my total view—if I can be said to have one—Spinozistic. I refer to a class of total views comprising variations of interpretations, elaborations, and reconstructions of Spinoza's system as formulated (mainly) in his *Ethics*. The term *reconstruction* I introduce in order to characterize interpretations of the text that Spinoza himself in part would presumably reject, but that the text admits.

It is my contention that the way I work shows the influence of the spirit of the Vienna Circle.

One may even say that this spirit is traceable in many ways, and that it provokes negative reactions of the same sort that we experienced in the 1930s: the intrusion of tools such as symbols used in symbolic logic into humanistic studies, taking definition and deduction seriously, and related "hard" ways of thinking. One of the characteristic traits of my study of Spinoza is that I take his definitions and definition-like ("definitoid") sentences seriously. If a sentence is a definition in a certain narrow sense, it implies that one may substitute the definiens expression for the definiendum expression, and vice versa, in the relevant text (in my case, the *Ethics* of

Spinoza) without changing the intended meaning. The style of the text may be heavily damaged in this process, because the definiens expression may be complicated, perhaps consisting of 100 words, whereas the definiendum expression (a sentence or a term) may consist of only one or two—but that is irrelevant. Spinoza uses about a dozen sentences that may imply either complete or not-complete substitutability. Thus, if he says that something, *x*, is *the same as* something else, *y*, he may roughly mean what I would declare by saying that *x* and *y* denote the same (but that “*x*” and “*y*” do not necessarily connote the same). There would scarcely be complete substitutability. Such substitutability may sometimes be complete, because he in other places in his texts uses stronger expressions to identify the particular *x* and *y*.

Noting the occurrence of the definitoid sentences, I work with a list of 243 definitoid sentences. Some are slightly reconstructed. They are standardized and said to announce “equivalences” among centrally important terms in the *Ethics*.

Through the use of the equivalences, I leave the words *Deus* (God) and *substantia* (substance) out in my version of parts of the *Ethics*. In Spinoza’s day one could scarcely dispense with those words, but today we can, and the perfectly immanent God of Spinoza invites us to eliminate the words that for most people denote transcendental entities. Speaking about entities, I use Occam’s razor and the second “definition” (*definitio*) in part I of the *Ethics* to eliminate the word *essence*. Incidentally, a modern logically conscious reader would tend to say that that “definition” is two definitions connected with “or” (*vel*):

II. I say that to the essence of anything pertains that, which being given the thing itself is necessarily posited, and, being taken away, the thing is necessarily taken away; or, in other words, that without which the thing can neither be nor be conceived, and which in its turn cannot be nor be conceived without the thing.

What Spinoza calls *definitio* is transformed in this case into two equivalence sentences implying universal substitutability in the text.

Using Spinoza’s definitions in this way, the *Ethics* can be “reconstructed,” not violating the text at any point. Spinoza would personally object to some of the reformulations, I presume. It would depend in part on

which stage of his life we refer to. In his last years he would perhaps have tolerated more of the changes than in his ardent youth.

The intricate web of the *most* central terms (about fifty) and their equivalences can be surveyed in its fullness through the use of symbolic logic. I use only propositional logic and predicate logic. I do not see how we can conveniently keep more than a thousand relations in mind without such an instrument. In those not acquainted with logic, however, the symbols tend to arouse negative feelings.

Of the terms that are connected with others through equivalence relations, I may mention the following: *acquiescentia* (5 relations), *aeternitas* (5), *affectus* (19), *amor* (10), *anima* (8), *bonum* (7), *causa* (21), *conatus* (16), *libertas* (3), *potentia* (32), *ratio* (30), *virtus* (18), *volitio* (3). About 100 terms in the *Ethics* are connected with one or more definition-like sentences. It is often said about certain philosophers that their vision is fundamentally simple and "one." The equivalences testify to that. "To be in itself" is equivalent to "to be able to be conceived through itself," which is equivalent to "freedom," which is equivalent to "to be self-caused," and so on. The kind and intimacy of the equivalences show great variation, however.

Two years after publication of my book presenting "the structure of a central part of Spinoza's *Ethics*," the tricentennial of Spinoza's death was commemorated in Amsterdam. Here he was laid to rest in the Nieuwe Church. I felt it to be a vindication of the acceptability of my sort of analytical approach to his supreme work that I was invited to deliver the speech in that church. Even if no other Spinoza scholars have so far taken up work of my kind, I believe in a great future of analytical clarity in life- and worldview philosophy. Announce a lecture on Spinoza's immanent concept of God and you may expect 20 students to come, but 200 may show up. Logical clarity and empirical work have a place *within* the framework of creative metaphysics.

Spinoza's theorems about the favorable function of active emotions on the way to higher degrees of freedom are in principle testable empirical hypotheses and at the same time genuine parts of his metaphysical system. This was not denied by Vienna Circle members. It is a grave misunderstanding that the text of the *Ethics* is somehow deductive, or at least meant to be deductive. Of its five parts, part III and the lengthy part IV are full of empirical hypotheses. If the interest in them had been great enough, the work could have started to try to devise tests.

The limited empirical attitude of some of the members of the Vienna Circle showed itself in discussions of whether Alfred Tarski's work on the concept of truth furnished an adequate definition of truth. The conclusion Rudolf Carnap and others reached seemed to be that *logical* analysis showed it to be adequate. My view was that adequacy implied agreement with at least one way in which the words *true, false, wabr, falsch*, etc., actually have been used in speech and in texts. Only empirical research could, as I saw it, establish the *limits of the domain* of actual occurrences of the words within which the Tarski definition was adequate. I accept that there is such a domain and that it is an important domain, but also that there are several usages, even *within scientific texts*, that are outside the domain. This conclusion rests on the analysis of several hundred occurrences of *true, false, wabr, falsch*, and closely related words.

I mention this because empirical research on usages of a term indicates that an extended use of what might be called the Mach-Duhem-Poincaré theorem is warranted. Roughly speaking, it says that given a set of observations, there are indefinitely many mutually incompatible hypotheses that can be made to cover those observations satisfactorily. Studying occurrences of verbal utterances, we may find indefinitely many mutually incompatible sets of rules that cover these occurrences. One cannot simply "see" which rules the occurrences of the word *true* obey in ordinary speech or in scientific publications. It helps that the word belongs to one's mother tongue, but acquaintance is not the same as knowledge. The partial *adequacy* of Tarski's definition can only be corroborated through *research* that in part is empirical. Neither Tarski nor Carnap found it necessary to stimulate *empirical* research of this kind (as a genuine part of philosophical work).

In my reconstruction of a central part of the *Ethics*, I use about forty predicates; for example:

L(x)	x is free (<i>liber</i>), partially or totally, adequately or inadequately
Rat(xy)	x acts rationally in relation to y
NPC(xy)	x belongs to that without which y cannot be conceived
Mel(x)	x is in a state of melancholy

The "Mel(x)" could easily be omitted, but certain considerations of terminological symmetry made it natural to introduce it.

As could be predicted, when people from humanistic or literary back-

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grounds saw my text with its strange symbols, they mostly closed it in fear or disgust. (This at least is my suspicion.) Since I was seventeen years old I have read Spinoza in Latin and acquainted myself with some symbolic logic, and my total view, if there is any, clearly belongs to the class of Spinozisms. Consequently, for me a reconstruction, including the symbols, is significant in my practical life.³

IV

**METAPHYSICS, MORALS,
AND GESTALT ONTOLOGY**

Do We Know That Basic Norms Cannot Be True or False?

The question of whether norms can or cannot be true or false is largely discussed as if it were capable of a solution a priori.¹ In this paper I try to show that the traditional a priori arguments against the possibility that norms are true or false are not decisive and that a posteriori arguments may at least become relevant.

One of the main contentions in what follows is that if it can be the case that something ought to be, then it can be true that something ought to be, and that whether something is the case cannot be known a priori. Experience may disconfirm our hypotheses as to what is the case—if experience can disconfirm anything.

Another main contention is that in relation both to basic norms and to basic nonnormative statements of science, there are grave questions of justification that make the application of the terms *true* and *false* to them problematic. If the claim to truth-value of basic norms is as well (or badly) established as that of basic statements of science (and metascience), then the applicability of “true” and “false” to basic norms follows from their applicability to basic statements in the sciences.

A Priori Arguments

In a posteriori argumentation, conclusions have an inherently ad hoc character: future experience, the term taken in wide senses, may overturn them.

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Or, if one retains the conclusion, one may be forced to adopt increasingly complicated and arbitrary auxiliary hypotheses. The spirit of research on questions a posteriori shows itself in the systematic and careful way in which the researcher prepares himself for disconfirmation as a result of new observations. These may indeed overturn his ad hoc conclusions, but this does not impair his joy in a posteriori research. It is an essential part of the game.

In the debate concerning the objectivity of norms, there is very little reference to contemporary or future empirical research or to other sources by which to improve upon the certainty or accuracy of the arguments. One reason for this may be that main arguments have a strictly a priori character, or are believed to have that character.

What are now the main arguments (if any) that have a justifiable claim of being a priori?

Let us first declare that the term *a priori argument* will be used to express a concept such that whatever will be *observed* in the future, an a priori argument will remain relevant (or irrelevant), true (or false). It cannot possibly change relevance or truth-value because of such observation.

Such a concept of a priori does not have as conceptual characteristics generality, finality, or apodicticity. The *possibility* of verification or confirmation, falsification or disconfirmation by future action is not denied, but *observational* statements will not be relevant.

The irrelevance of future observation refers only to observations concerned with the phenomena about which the argument asserts something.

The Doctrine That Norms Cannot Be True or False

The prevalent tendency in Anglo-American and Scandinavian philosophy and social science is to question or deny the *possibility* of knowledge of a normative kind, for example, normative ethical knowledge. According to this dominant trend, we know or may know the shape of the Earth, but we do not know and will not possibly come to know whether one should act so "dass die Maxime deines Willens jederzeit zugleich als Prinzip einer allgemeinen Gesetzgebung dienen könne." The difference is often expressed in condensed form by saying that whereas a proposition may be true or false, a norm cannot be true or false. A norm may be valid or invalid, but that kind

of validity is different from that of propositions, that is, different from truth.

Which are now the arguments put forth to strengthen the position that normative knowledge is impossible? In what follows we shall inspect a sample of proposed a priori reasons for the impossibility of basic norms being true or false. The sample includes an example of each of the main kinds or families of arguments put forth in contemporary philosophical debate, insofar as they can be isolated from their specific, usually very complicated, context. The arguments that clearly are meant to be a posteriori are not included. Thus, the argument of A. Ross (1945) concerning lack of agreement on the value qualities of objects is left out.²

An Argument from Logic or Semantics: Norms Are Not Propositions

Let us inspect the following argument: True and false are, as used philosophically, predicated only of propositions. Norms are not propositions. Ergo, norms cannot be true or false.

Two Counterarguments

There are two counterarguments to be mentioned at once. In framing the first counterargument in what follows, we presuppose that the expression "as used" means the same as "as actually used until now." That is, the argument concerns the denotata, not connotation of truth or falsity.

If instances of the use of a predicate are known and arranged chronologically, we may at any definite time list common characteristics of the denotata. The next instance of use may, however, present a denotatum that lacks one or more of these characteristics. Even if it were the case that the denotata of the predicates "true" and "false" in philosophical literature always have been propositions, and norms are not propositions, this does not exclude the possibility that truth or falsity is predicated of a norm next time.

Some time ago, "carnivorous" in zoology expressed a predicate applied at that time only to animals. A materially adequate definition of "carnivorous" might therefore at that time include a restriction to animals. The ex-

tension of the predicate included only animals. Today we speak also of some carnivorous plants. If someone had eagerly proposed a definition such that the term *carnivorous plant* is contradictory, so much the worse for him!

It is not the business of philosophy to ossify terminological regularities. The argument that until now only propositions have been labeled “true” or “false,” or that certain definitions of yesterday include a restriction to propositions, begs the question. It presupposes that those beliefs are true that make it convenient to adhere to a terminology that is under consideration. Now, this is a presupposition that may turn out to be false. If so, the definition of “truth” or of “proposition” may be changed with good reasons, reasons that are good because of certain changes in opinion, owing, for example, to new discoveries. In short, from premises telling us how the terms *true*, *false*, *norm*, and *proposition* have been used until now, we cannot conclude that norms can, or cannot, be true or false. This holds whatever such premises are telling us.

Now, if it were shown that norms might be true or false, the rules of ordinary logic could be applied to them. Norms derived from true basic norms plus hypotheses from various sciences would be true. Thus norms and (nonnormative) propositions could be treated in the same way within important considerations. If such a possibility were realized, it would furnish an argument for calling the norms propositions, that is, a good argument for reconsidering an old classification, adjusting the delimitation of classes of phenomena to new insights and changing terminology.

Summing up the first counterargument, it may be thus formulated: The fruitfulness or convenience of a classification system of entities into propositions and nonpropositions depends on certain things we do with propositions, certain operations, for example, applying the calculus of propositions to them. If norms may be treated as propositions in making deductions, this might be a good reason for revision of the *fundamentum divisionis*: we might then include norms in a broad class of entities, the class of entities capable of being true or false, a class covering both nonnormative propositions and what might be called normative propositions.

A second counterargument is relevant if truth-value of norms is rejected on the ground that it violates rules of vocabulary or (normal) definition: there are many proposals for definition of “norm” and “truth,” none of which enjoys general consent among philosophers, but even if a now gener-

ally accepted definition ruled out the possibility of true or false norms, the terms *true*, *false*, and *norm* have for a long time been used in such ways that to speak about norms as true or false has not involved contradiction. It is a perfectly legitimate undertaking to study the relation of truth and normativity on the basis of the noncontradictory usages, thus rejecting a definition that within a certain time interval was generally accepted. In short, since the terms *true* and *norm* have been, and still are, used in ways such that “the norm *N* is true” will not constitute a contradiction, references to nominal definitions such as “the norm *N* is true” that represent contradictions in terms, cannot show or prove that norms cannot be true or false.

We admit that “norms cannot be true or false” is true in relation to all those systems of nominal definitions that make the sentence a *contradictio in adiecto* but add that these are not all systems, and that the other ones are in no bad relation to common usage.

Tentatively, we conclude that the first argument is a bad argument. It does not support an a priori rejection of there being true norms or genuine normative knowledge. It presupposes that the rejection has already been justified on some other basis.

A Semantical Argument: Norm Sentences Are Meaningless and Therefore Cannot Be True or False

Basic norms—or, more generally, pure norms—are expressive of feelings; they lack the symbol function characteristic of sentences expressing propositions. They may therefore be said to lack cognitive or theoretical meaning. Now, the predicates “true” and “false” apply only to cognitively meaningful statements. Their connotation or conceptual characteristics entail such a limitation. Therefore, basic norms cannot possibly be true or false.

Counterargument

The first premise involves two hypotheses in psychology or the social sciences: that norms are expressive of feelings and that they lack the symbol function. These are interesting working hypotheses, which perhaps may be strongly confirmed by future research. Actually, the first would be regarded as well confirmed by many psychologists. It is not clear, however, why the

function of expressing feeling should have lack of a symbol function as a necessary consequence. The second hypothesis is independent of the first.

Anyhow, both hypotheses are inadequate as part of an a priori argument. If the premise were established a priori, it might have been justified to use the strong expression “cannot possibly be true or false” in the conclusion. If, however, the premise in the future will only be strongly confirmed, the conclusion will only attain the status of a strongly confirmed hypothesis, useful only in a posteriori argumentation.

An Ontological Argument Against Normative Knowledge

Let us then proceed from the semantical or analytical argument to an ontological one: a true statement asserts of what is that it is and of what is not that it is not. In other words, it asserts that what is the case *is* the case and what *is not* the case is not the case. Or, truth is *adequatio rei et intellectus*—truth consists in agreement with reality.

These formulas (and others) are traditionally used in references to the so-called classical conception of truth.

Now, says the argument, take a norm stating that this or that *ought* to be. *Be* and *ought to be* are not the same; neither are *not to be* and *ought not to be*. The Aristotelian tradition thus implies that the norm cannot be true or false.

Moreover, the formula *adequatio rei et intellectus* presupposes a *res*, an object that our statement says something about. This object must actually be there, not only ought to be there. Similarly, the formula “agreement with reality” presupposes a reality or state of affairs about which we are saying something.

Now, according to the Aristotelian tradition, there do not exist any entities, either immanent in the world or transcending it, that are capable of forming the truth-condition for a norm.

Counterargument

Let us inspect the sentences “It is true that there are black swans” and “It is true that you ought to love your neighbor as yourself.” The classical, Aristotelian trend in definitions of truth admits the formula that it *is true that* there are black swans if it *is the case that* there are black swans. What is the

object, the res, the reality, with which the statement must agree in order to be true? It is the condition of something being so and not otherwise, that is, of something being the case. I think this answer does not amount to more than a repetition of the use of the expression "is the case that." The introduction of terms like *object* and *reality* suggests extension. Perhaps something may be the case without presupposing anything extended. If this possibility is rejected in advance, the discussion in this article is made pointless by an a priori postulate.

Semantically, the formula "if it is the case that x , then it is true that x " applies to the Golden Rule. We may say that *it is true that* you ought to love your neighbor as yourself, if *it is the case that* you ought to love him that much.³ If this is so, the norm asserts of what is, that it is. It does not say that actually you love your neighbor. The state of affairs, or reality, it designates is the one *that you ought* to love your neighbor. Compare the following way of speaking: "*Is it so* that you ought to love your neighbor? Yes *it is so*." If this "is" is too abstract, too insubstantial or shadowy to permit the terms *real* or *state of affairs*, let us drop those terms in this connection. "True" and "is the case" are good enough.

Correspondingly, a norm saying that you ought *not* to love your neighbor less than yourself, states of what is not so that it is not so. The Aristotelian definition of falsity applies, and so does the "is the case" formula. It is not the case that you ought to love him less than yourself.

The Aristotelian and other classical truth formulas lead us to assert that at least some norms are true, provided *it is the case* that we ought to act as the norms "tell us." Whether it is the case can hardly be decided by inspection of classical formulas of truth.

Among the kinds of doctrines traditionally used to support the claim that it may be the case and may be true, that something ought to be, one main kind is outstanding because of its long and distinguished history: the doctrines of ideas in some more or less Platonic versions. When they are applied to pure mathematics and logic, we get the doctrines of mathematical objects such as (nonphysical) circles or relations, classes, etc., as entities distinct from the relata and the class members taken separately.

Applied to norms, the doctrines of ideas may assert the existence of ought-relations or "*ideale Forderungen*," not further reducible. Among sociologists, Georg Simmel takes this view.⁴

The phrases *world of value*, *world of duties*, *world of norms* suggest Platonic objects in a normative heaven, and belief in such objects requires an imagination more religious than scientific. The belief in the possibility of normative knowledge does not require this imagination. It is enough, for example, to believe in the possibility of a kind of insight that Husserl has described in his account of ideal, apodictic laws. He refers to the principle of identity and analogous first principles that he believes can be *seen* to be valid by a confrontation *with what is the case*, with the "*Sachverhalt selbst*." I cannot say that I find Husserl at all convincing, but it seems to me not unreasonable to suppose that there might be instances of pure intuitions of the phenomenological kind.⁵

If there were such intuitions, they would establish normative knowledge. In Husserl's "meeting" with what is the case, there is no schism between a physical or perceived object and a mind, but an illuminating insight in which it is seen *that* something is the case. It is not the *something* that is illuminated but the *that*.

According to Platonism, the sentence "It is the case that the center of a circle halves all its diameters" may be as true or false as a statement about an ideal circle. According to Husserlian doctrines, it would rather be the logical relations between the definition of a circle and that which is asserted by the sentence that can be intuited. There is, strictly speaking, no need for ideal *circles* according to such doctrines. The ideal state of affairs does not require an object—a circle, or something else—that exhibits the state. The position that some norms possibly are true may thus be given a Husserlian color. "It is the case that you ought to realize yourself" might be a true or false statement about an ideal state of affairs of a normative kind.

Among the contemporary advocates of Platonic varieties of objectivism, Nicolai Hartmann might be mentioned. A couple of quotations will exhibit his way of thinking:

Ethik kann tatsächlich lehren, was sittlich gut ist, wie Geometrie lehren kann, was geometrisch wahr ist. Aber sie kann dem sittlichen Bewusstsein nichts aufdrängen, sondern es nur auf seine eigenen Inhalte und Prinzipien hinlenken. Sie kann nur aus ihm heraufholen, was in ihm enthalten ist. Auch hierin gleicht sie der reinen Mathematik. Der Unterschied ist nur, dass die Prinzipien und Inhalte, die sie ins Bewusstsein hebt, Gebote, Normen, Werte sind. Dem Inhalt nach also ist sie normativ, nicht aber der Methode oder der

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Art der "Lehre" nach. Denn die Apriorität der Einsicht und die Didaktik der Hinführung auf sie ist die gleiche hier wie dort. . . . Die ganze Verantwortung für Rechtmässigkeit und Objektivität des Wertungsmaßstabes fällt der eigentlich apriorischen Wertschau, d.h. letztlich dem Wertgefühl selbst zu.

(Hartmann 1949: 29, 127)

Das reale Sein also kann wohl Wertvolles enthalten, aber es kann kein Sollen enthalten. Es kann auch das Hintendieren als solches nicht aufnehmen, wenn nicht eines seiner eigenen Gebilde sich als tendenzfähig d.h. als aufnahmefähig für das Sollen erweist. Das Subjekt ist das Tendenzfähige—and so weit wir wissen können, das einzige Tendenzfähige—der realen Welt. Es allein kann das Sollen ins Sein 'setzen'.

So Kommt es, dass das Sollen, obgleich es nicht im Subjekt wurzelt, ihm vielmehr als gestellte Anforderung gegenübertritt, dennoch als aktuelle Tendenz im realen Sein nur am Subjekt ansetzen und nur von ihm aus von Reales determinieren kann.

(Ibid., p. 182)

The chief difficulty in refuting a priori the contemporary Platonic or objectivistic views of values and norms lies in the claim that those views affirm the *existence* of something. In matters of ghosts, golden mountains, talking stones, and many other entities defined without internal contradictions, refutations are based on experience or, more generally, on a posteriori considerations of some sort. The refutations may be of crushing weight, making belief in the existence of the entities practically impossible, but they are not a priori refutations. "Think away" your experience until now, or imagine you have had other experiences, for example, those described by Husserl, and in other observational journals, and then your refutation would no longer hold. One may be convinced never to face such observational journals, but it seems difficult to find valid a priori justifications for this conviction.

If a Norm Is True, Is It Then Also a Description of Something?

Affirming the thesis that for all we know *it may be the case* that something ought to be, do we not also assert that, for all we know, normative propositions may be a subclass of descriptive sentences?

If one takes the view that all sentences of the kind "It is the case that A"

are descriptive and “*B* ought to be” is normative only insofar as it is *not* synonymous with “It is the case that *B* ought to be,” then we may answer affirmatively. Such a conclusion, however, would not alter the important conclusion that those sentences of the kind “*B* ought to be” that are synonymous with “It is the case that *B* ought to be” may be true or false. The proposed terminology would lead us to subsume an important class of ought-sentences under the concept of descriptive sentences—and why not?

Because of the importance of concepts of “norm” in debates on value nihilism, it may be worthwhile to discuss Harald Ofstad’s attempt to give a descriptive definition of “pure norm” adapted to the use it has received in the writings of the Uppsala philosophers.

In his article already referred to on Scandinavian philosophy, Ofstad defines “pure norm” in such a way that it excludes any norm that *may* be expressed by a declarative (descriptive) sentence:

A formulation given by a person is said to express a pure norm [for this person] if and only if the following two conditions are fulfilled:

1. The formulation must be synonymous for its giver with an imperative formulation, or with a formulation that says or denies that something ought to be done, or shall be done, or must be done, or that something has value or is good, or is bad, or is better than something else or the best of something.
2. The formulation must not be synonymous for its giver with a descriptive (declarative) sentence.

(Ofstad 1951: 46)

The terms *declarative* and *descriptive* admit different interpretations of importance for our present discussion. If *declarative* is defined as is customary in grammar, sentences such as “It is your duty to defend your fatherland” and “You ought to abstain from killing any human being” are declarative. Thus, all sentences fulfilling the first condition might turn out to violate the second condition with the exception of the imperatives.

If, on the other hand, *declarative* and *descriptive* are taken from terminological trends in value theory, the terms might as well be introduced by inserting a series of negations in (1). The formulations must not be synonymous with a formulation that neither says nor denies that something ought to be done, or that something shall be done, etc. Unhappily, there are no

suitable definitions of “descriptive” except in contrast to “normative” (or imperative).

It should be unnecessary to add that the term *pure norm* thus introduced is only precise enough for very modest purposes of exposition. The attempts to introduce more precise and at the same time fruitful concepts of “pure norm” or “genuine value judgment” have been, so far as I can judge, rather unsuccessful.

Now, how is “It is the case that *B* ought to be” to be classified? Empirical studies show that for many people in many situations the sentence is synonymous or near-synonymous with “*B* ought to be,” expressing forcefully the intended objective validity of the norm. Using Ofstad’s descriptive definition, we would unhesitatingly say that the sentence fulfills the first condition, but how should we tackle the question of whether it is synonymous with a declarative sentence? In the absence of any suitable definition of *declarative*, we might say that the first part of the sentence *sounds* declarative and the second does not.

If a declarative sentence is defined as a sentence expressing that something is the case, the sentence “It is the case that *B* ought to be” is declarative. For those who use that sentence synonymously with “*B* ought to be,” this latter sentence will also be declarative. For people who use such a sentence as indicated by Charles L. Stevenson and others, it would not be declarative.

How Strongly Should Normative Insights Motivate Action?

One of Alf Ross’s main conclusions concerning propositions of value is that they cannot be true or false and that if they could, they would not have a normative function other than that which declarative sentences sometimes do have. Even if there were objective values, says Ross,

[T]he *apprehension* of value would not be “practical” or “normative” in any other sense than all cognition is. For any cognition can be called “practical” or “normative” in the sense that on the assumption of a given aim of aspiration the insight into a certain theoretical state of affairs has a normative effect on behaviour. Thus, for instance, the theoretical insight that water boils at 100° C. will determine the behaviour of the person who wishes to make the water boil. The theoretical insight may be transformed into a hypothetical norm (in the present case: if you wish to bring water to the boil, you must heat it to

100° C). It may also be expressed thus: *under suitable circumstances all theoretical insight possesses technico-normative significance.*

And the apprehension of value would have no other normative significance. The objective values, to the person not interested at the outset, would practically be a matter of complete indifference. How do these values concern my practical attitude? I may for instance accept the theoretical assertion that lying has the quality of "odiousness" and at the same time without any sort of inconsistency lie on a large scale.

(Ross 1945)

It seems here that Ross works with a concept of normative such that a sentence "Lying is odious" would have a normative function and express a true norm only if insight into its truth would prevent a person from lying, or if it agitates the speaker or listener. About a preacher's sermon it may, however, in all sincerity be asserted that it was true what he said, but it was boring and left the listeners indifferent. We may also sometimes say, "I know what I now *ought* to do, but I do not *want* to do it." This, and similar utterances of occasional practical indifference toward what is sincerely believed to be true, cannot easily be taken as conclusive argument against the beliefs. Value objectivists stress the intense prescriptive character ("*Forderungs*-character") associated with genuine acts of value cognition, but not to the extent that the subject is by necessity permanently and strongly motivated to satisfy the demands associated with the cognitions.⁶ Thus, I do not think that Ross's argument hits the mark. Knowledge of values could be of great importance in practice even if it did not invariably elicit a behavior in accordance with the insight.

A Priorism Incompatible with Empiricism

In light of the foregoing, my tentative position will be that *for all we know* some norms may be true or false and that consequently normative knowledge may in principle be obtainable, but perhaps never obtained.

Why should one bother with the possibility of such knowledge if one happens to be more or less convinced that there is none?

In my own case I bother with this possibility because I am not convinced that human beings might not have had, or might not in the future acquire, normative knowledge. They will perhaps be able to verify or falsify

a norm, or at least confirm or disconfirm it to a degree of practical importance. I am neither certain that there are normative truths to be verified or confirmed nor sure that there are not.

The climate in Anglo-American and Scandinavian analytical philosophy seems to have been favorable to a priori arguments against the objectivity or truth of norms or values. Those, however, who are inclined toward empirical trends in philosophy cannot but view with suspicion the dominance of a priorism, and this suspicion will concern counterarguments as strongly as pro-arguments. It is the particular job of empiricism to leave questions open if no decisive arguments are at hand.

Ross seems to view his inquiry into the nature of value as a crusade against a priorism. Of what kind, then, are his own arguments? They derive from neither mathematics nor (formal) logic. He calls his method logical analysis, but from which kinds of inquiry research does this method get its authority? It seems to me that in combating a priorism in one field, he introduces it in another. He does not specify any empirical research that might settle questions a posteriori.

Must Normative Objectivism Lead to Fanaticism?

The following discussion is not intended to be a continuation of the argument. It states a causal hypothesis concerning conditions that have undermined objectivism. It has been felt that dogmatism and fanaticism in religion and morals, and absolutism and totalitarianism in politics, have to a high degree been supported by the belief that *I* am or *my* part is right, and right in an absolute sense, as a fact, and beyond doubt. Objectivism may foster inhuman attitudes between human beings.

The belief in the actuality of insight, knowledge, or true intuition in morals, religious normative dogmas, and ideological superstructures has, according to the Swedish and Danish value nihilists (Hägerström, Phalén, Alf Ross, to mention some whose works are in part available in world languages), contributed immensely to the mental and physical violence so prominent in the history of European countries in the last centuries (Lundstedt 1925; Ross 1953: 359).

I venture to suggest that the idea of normative knowledge would appear less repulsive if it could be combined with another idea that made its

use in support of religious, moral, and political fanaticism unlikely or impossible. This idea is that of difficulties of verification as an obstacle to an easy switch from truth to knowledge, from possibility to actuality.

Let us take the Golden Rule as an example. The belief that it either is true that you ought not to do against others what you do not wish others to do against you, or that it is false, and the belief that it is true, do not together make the Golden Rule a piece of knowledge. From the truth that Fermat's theorem either is true or is false, plus a belief that it is true, it does not follow that the theorem is a piece of knowledge. Perhaps it will never be known. In those cases in which verification is difficult or practically impossible, we are not entitled to proceed from the knowledge that p or non- p is true to the knowledge that p is true or that non- p is true.

Even in cases in which verification is not too difficult, we do not believe dogmatically and firmly in all our physical and mathematical beliefs as a consequence of our belief in an objective standard of mathematical and physical knowledge. We conceive that there may be a gap, wide or narrow, between our own beliefs and ultimate knowledge.

Applied to norms, this suggests that the road from knowledge that you are right or I am right to the knowledge that I am right might be as difficult or even more difficult to traverse than the corresponding one related to nonnormative knowledge. There may be practically unattainable requirements of ethical status, power of meditation, depth of understanding, integration of personality, freedom from prejudice, intensity of action and engagement, serene disinterestedness.

When the value nihilists suggest aversion to absolutism and dogmatism as a source of negative attitude toward value objectivists, an "unscholarly" motive may be said to be imputed to the former. Ross (1953: 172) suggests that such a motive operates in the camp of value objectivists: "What renders difficult the clarification of the problems to be discussed here is not only their inherent difficulty but also the unscholarly motives that, rising from the depths of the soul, make so many cling to a spiritualistic metaphysic and the edifying belief in a moral spiritual order of the world. Hence what we require to attain clarity is not only the intellectual ability to master onerous tasks, but also a certain quality of character: a consistent scientific purity, liberation from every craving for a metaphysical belief which at bottom is rooted in impotence and fear."

As regards the “belief in a moral spiritual order of the world,” it is important to note that only a subclass of such beliefs are beliefs in a moral spiritual order in the extended world. The ontology of Hägerström, and perhaps also that of Ross, is one according to which what is the case must be the case in a spatio-temporal world.⁷ The more refined value objectivists do not presuppose a narrow concept of what is the case and are therefore more difficult to argue against. What is the case may not always be the case somewhere. It is likely that an argumentation purported to be thoroughly “scholarly” (and therefore in the spirit of research) would have a more agnostic or sceptical conclusion than that of strong negations (it is *not* so that there is a moral order, it is *not* so that any norms are true, etc.).

Disagreement About Norms and How to Verify Norms Suggests That Verification Is Highly Problematic

There is not sufficient ground for rejecting the possibility of norms being true, but sufficient ground why we should reject the assertion that somebody actually at the moment possesses normative knowledge.

The main reason is, I think, the persistent disagreement among presumably normal, competent people who make an honest effort to understand one another’s ethical and other normative positions.

The disagreement seems to be less prominent in relation to fundamental norms than in relation to derived ones. It should also be noted that in political and other ideological structures, violent disagreement about what actually happens in the world plays a dominant part. Nevertheless, there is, in our time, sufficient disagreement concerning norms to reject them as expressions of knowledge.

A similar negative conclusion is warranted in relation to the many proposed ways of verifying norms, whether intuitional or otherwise. For expositions showing the difficulties of verifying value qualities (“tertiary qualities”) in a way similar to secondary qualities, the reader is referred to Ross’s article (1945).⁸ At present, there seems to be no way of verifying or confirming a basic norm that can compare with the methods of the sciences, even if we include such shaky fields as parapsychology.

On the other hand, basic presuppositions of the established sciences are in a position similar to that of basic norms. No matter how chaotic the

disagreement concerning ultimate foundations, though, many derived propositions and rules command near-universal adherence. If q is a consequence of p , and q is strongly confirmed, this cannot but make us trust p at least tentatively, even if the way of confirming q itself rests on the supposition of p being true. This may in part explain any lack of verification, and established knowledge of basic nonnormative assumptions is not taken as a sufficient reason for general scepticism.

A Planet with Hume's Argument Inverted

In every system of mortality which I have hitherto met with, I have always remarked that the author proceeds for some time in the ordinary way of reasoning, and establishes the being of God, or makes observations concerning human affairs; when of a sudden I am surprised to find, that instead of the usual copulations of propositions, is, and is not, I meet with no proposition that is not connected with an ought, or an ought not. This change is imperceptible; but is, however, of the last consequence. For as this ought, or ought not, expresses some new relation or affirmation, it is necessary that it could be observed and explained; and at the same time that a reason could be given for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it.

(Hume 1951: 469)

This famous passage introduces Hume's argument against rationalistic conceptions of norms. It presupposes a doctrine about what kind of reasoning is ordinary and why the ordinary should have any authority with us. If we start from a negation of that doctrine, the passage loses its force.

Let us suppose that there is a planet where physical laws are tremendously complicated, practically impenetrable, and further suppose that the morally intensively interested and physically uninterested inhabitants agree completely on all fundamental norms. These might then acquire the status of self-evident axioms and be contested only by cranks. There would be no embarrassing question of verification. Verification would be required only of derived statements and especially of norms derived in part by means of physical hypotheses.

On this planet where Dostoyevsky and others would have perhaps felt more at home, a David Hume might have stood up and warned his fellow philosophers, How do you manage to proceed from safe normative proposi-

tions to the highly doubtful physical ones? Scarcely by ordinary reasons! Physicalizing authors forget, he would say, to tell how they obtain their physics from a set of normative premises.

On this planet there would be physical nihilists proclaiming that physical statements are neither true nor false, and moreover, for a priori reasons, that they cannot possibly be true or false. The world of physical laws is an illusion, they might say, and the world of common sense, that is, that of values, is the only reality. In order to be true, a proposition must agree with reality, but there is no reality to agree with for a statement in the systems of physics.

A Planet with No Argument

Conditions on the imagined planet and on our own have in common a disparity between the extent and intensity of agreement on norms versus non-normative propositions. Now, let us imagine a third planet, where our conditions relative to nonnormative, especially physical, propositions and the conditions of the second planet relative to norms are both realized. Will there be any place for a Hume there? There would presumably be free passage from nonnormative to normative and vice versa, all in complete harmony with “natural reason,” and conditions of verification or confirmation would be agreed upon to the pleasure of both moralists and naturalists.

Basic Norms and Basic Nonnormative Assumptions of Science

It has often been pointed out that the methodology of testing the validity of basic norms lacks a chapter corresponding to that of observation in the methodology of nonnormative statements of science. The comparison is unimportant, because the chapter on observation does not touch on the foundations of science. The status of observation as a source of knowledge cannot itself be justified by observation. The psychology and physiology of sense perception are themselves based partly on observation and cannot be used to justify observation epistemologically without a *circulus in probando*. The status of observation as a source of knowledge seems in science to be postulated or to be taken as intuitively evident. That is, the justification of this status does not seem to be different from the kind of justification

needed in relation to norms, provided we have all found certain norms intuitively evident.

Comparing basic norms with basic nonnormative statements relied upon in science, we see that they have much in common from the point of view of methodology of testing: on the whole, “intuitions” are relied on.

If the basic methodological rules of science are formulated as norms—as they often are—the difficulties of testing will be similar to those in science. The question arises whether a proposition in science arrived at by means of such a rule should be called true or false, if basic norms are denied truth-value.

As regards the principle of induction, it is agreed that it cannot be justified by observation. Max Black and others prefer to speak of the principle as a policy, the policy of expecting certain things to happen rather than their opposites (Black 1954). It is often formulated as a norm. If this norm is negated and a very different one adopted, the content in textbooks of physics or history would have to be radically changed.

All this adds nothing to the reason for believing in the possibility of normative knowledge, but it eliminates certain misconceptions about non-normative knowledge. Nonnormative knowledge also has its problems or even paradoxes. Its basis is obscure.

The foregoing seems to support the contention that the distinction between norms and nonnorms in relation to truth-values is something upheld and justified by belief in what is or is not, that is, in what is the case, rather than by valid a priori reasons. In the strange worlds into which our world may develop, for all we know conditions may favor other beliefs. They are at the mercy of future experience.

In using the term *belief* I do not intend to convey that the change in standpoint toward norms and nonnorms would be irrational. The change may be justified by induction or any other kind of rational argument a posteriori that commands universal assent today.

Consensus omnium should not be taken, it is often said, as a reliable criterion of truth. On the whole, however, what actually is considered to constitute knowledge among researchers in a field is just those beliefs that are universally held by those who are considered to be experts. If there is much disagreement among experts about a proposition, it is not considered (safe) knowledge. Practical variation of conditions of agreement, whatever their

causes, changes our conception of what is real or objective, and the change may be in favor of normative or mixed normative–descriptive models of reality, away from the physical or other purely nonnormative models favored today among scientists.

A Posteriori Questions Leading Us to Empirical Research

Our conclusion from the foregoing is that arguments functioning in the debates concerning norms and truth-values as if they were a priori arguments, in part are not a priori, in part are a priori, but not decisive.

It is not the aim of this article to enlarge upon the a posteriori arguments. I should like, however, to emphasize that in many a posteriori considerations of general and abstract kinds, empirical research has been fruitful. It is methodologically sound to look for possibilities of such research relating to norms.

A task for empirical research of a nonsemantical kind is, just to take an example, to find out how scientists and others actually justify their assertions (whether normative or not) when confronted with repeated, persistent questions of *why* and *how*. Preliminary experiments suggest that the chains of arguments do not tend, in the long run, to end up with observation sentences (Naess 1937–38: 384). It seems that methods of verification by non-philosophers generally comprise both norms and descriptions as links in the argumentation chains. This has some bearing on the contention that there are no methods of verification of pure norms. There is no indication that the norms occurring in the links are all instrumental or otherwise different from basic or pure norms.

Another task of empirical research is to study fluctuations in the conceptions of reality, especially the fluctuations in regard to the prestige of a space-time manifold as typical of what is real. Such studies would be relevant for our estimation of the sources of our intuitive certainty that it cannot be the case that something ought to be. If what is the case is always something in space and time, as, for example, Hägerström seems to presuppose, it will never be the case that something ought to be. The strong conviction that value nihilism is true may partly stem from belief in a kind of physicalist reality.

This does no more than hint at the kinds of a posteriori arguments that

lend themselves to empirical research with more or less established methods, or that ought to be studied in order to look for possibilities of empirical avenues of attack. There seems to be enough to do in this field for generations of researchers who are interested in philosophical reflections with empirical bearing.

Ultimate Epoché

Will empirical research give decisive results? Or, more generally, can a posteriori arguments be decisive? It is difficult to see how any set of arguments whatsoever can be decisive without its framers' already assuming rules of inference and basic descriptive assumptions. The "choice" at this initial stage of any argumentation will largely determine the force of empirical findings.

Thus, the above reasoning results in rejecting the decisive force of both a priori and a posteriori argumentation in answering the question of truth-value of basic norms. I cannot see any way leading to a rational decision. A suspension of judgment, an *epoché*, seems appropriate.

We Still Do Not Know That Norms Cannot Be True or False: A Reply to Dag Österberg

Argumentation 1

Premise 1: Norms are not propositions.

Premise 2: All denotata of the predicates “true” and “false” in philosophical literature have been, until now, propositions.

Conclusion: Only propositions can be true or false according to philosophical concepts of truth and of norms.

This conclusion I do not think tenable because whether norms can be true or false depends rather on connotation than on denotation of concepts of truth. Until certain discoveries were made, denotata of “carnivorous” in zoological literature were always animals. It has been fruitful, however, to let the connotation of “carnivorous” be free from references to the distinction between animals and plants. The appearance of plants as denotata did not necessitate redefinitions.

Österberg has interpreted me to mean that contemporary definitions (and therefore connotations?) of truth are such that “true norm” and “true but not a proposition” are contradictory. However, only *some* definitions of truth contain a clause that only propositions can be true, and I see no reason

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automatically to take them as authoritative. There are dozens of definitions or statements closely resembling definitions without such a clause. Thus, Bertrand Russell says: "What an asserted sentence expresses is a *belief*: what makes it true or false is a *fact*, which is in general distinct from the belief" (1948: 111–12) and "My definition of truth is that a belief is true when it corresponds to a fact" (1948: 18).

The conception of an absolute, correct concept of truth is utterly foreign to me. So-called definitions of truth must, to be adequate, have certain relationships to actual use, but occurrence analysis or other scientifically satisfactory techniques of studying actual use cannot yield (by induction or otherwise) just one definite, so-called definition. The definitions are conceptual constructs with complicated and indirect relations to the observational data.

If we have good reasons for believing that a certain norm is true (or false)—using one of the definitions of truth that do not limit truths to propositions—consideration of fruitfulness may lead us to abandon those definitions (or, more general, conceptual constructs) that make it impossible for norms to be true. As stated explicitly in my article "Do we know that basic norms cannot be true or false?" argumentation 1 concerns "the denotata, not connotation of truth and falsity."

Let us briefly consider another argumentation.

Argumentation 1a

Premise 1: Norms are not propositions.

Premise 2: All definitions of truth in philosophical literature until now have included a stipulation that only propositions can be true or false.

Conclusion: Only propositions can be true or false.

Even this conclusion seems to me unwarranted. One might say "According to every definition in philosophical literature until now, only propositions can be true or false," but formulations of definitions in philosophy are implementations of certain *tasks*, for example, in relation to explication or analysis of actual use of the terms *true* and *false* in certain texts. Definitions are

considered more or less good, and there are more or less generally accepted rules for when to discard a definition and adopt a new one. In the case of definitions of truth and falsity, the core of the definitions is not a stipulation that only propositions may be true or false, but expressions such as “agreement with reality,” “coherence,” and so on.

Österberg would be right in maintaining that my criticism of the conclusions in argumentations 1 and 1a is commonplace or trivial. If, however, we consider the actual situation, namely that some norms *are*, by some philosophers and many nonphilosophers, claimed to be true or false, the insufficiency of arguments based on definitions or on denotata in philosophical literature should be pointed out. Those who maintain that they know that norms cannot be true or false because of certain definitions, should state their reasons for thinking that those who do *not* deny the possibility of true norms should adopt a definition of truth such that norms cannot be true or false.

Österberg agrees that it can be true that we ought to do X if it can be the case that we ought to do X, but he adds that “it is valueless to us until we know what is meant by ‘something being the case’.” “*Criteria* must be given,” says Österberg, and he thinks it a “sin of omission” that I do not offer criteria (Österberg 1962).

Now, formulations of general criteria of something being the case are scarcely helpful, perhaps because “to be the case” is something very fundamental and very simple. Phenomenologists have offered masterly and vivid accounts of what is experienced when judging something to be the case. Especially the descriptions of self-evidence, of insight that such and such evidently must be the case, are impressive pieces of literature. There is, however, something unsatisfactory in the phenomenological accounts if addressed toward people who are uncertain about which criteria of “being the case” are good criteria. Either one’s intuitions fit the descriptions or one has no reason to accept them. Even, however, if it may be unfruitful to search for *general* criteria that something is the case, particular criteria might be useful. I consider it to be the case that $7 + 5$ equals 12, that only extended things can be green, that dynamite is explosive, and that one ought to act with due regard to consequences. I can state special reasons for considering each to be the case.

As to norms, I have the suspicion—backed up by psychological and

sociological theories—that corresponding special reasons are not so strong or so good as in certain cases of sensory experience, or of logic or mathematics. However, I have not found, and cannot formulate, any convincing general and direct criticism a priori of norms being true or false. Sometimes what norms *assert* is to me, and to many others, as compelling in their evidence and just as independent in their validity from my likes and dislikes as mathematical or any other propositions.

Is it an empirical question whether something is the case or not? My answer has been yes, but it seems to me now that the answer rests on an unduly general concept of 'empirical', taking it roughly to be equivalent to 'ontological'. One may ask whether it is the case that an absolute proof of consistency is not available for the whole of arithmetic. I would say that the question is—as formulated—an ontological question, but not empirical. Maybe *factual question* is a better term; if something is the case or not the case, it is either a fact or not a fact. It is a factual question in contrast to one, for example, of terminological convenience or convention.

As to whether something *can* be the case, I agree with Österberg that this is a different question (from the point of view of connotation) from that of whether something *is* the case. Insofar as definitions of *true* and *norm* and related terms leave open the question of whether norms can be true, I do not see how it can be concluded that norms *cannot* be true. If definitions—or more general, conceptual structures—agreed upon by convention by very distinguished authors do not rule out a possibility, I cannot see that there remains anything else to do than to show that something *in fact* does not exist, meaning that there actually are not true (or false) norms.

Thus, I am not convinced that there is a logical flaw where Österberg sees one.

Österberg touches on a very important point in the following words:

It seems that value-objectivism can be intelligibly defended within idealistic philosophy. But what is the significance of this fact to a philosopher belonging to an analytical, empirical trend? Obviously he cannot adopt the conclusion that "norms can be true or false" if the premises are incompatible with the frame of reference within which he is thinking. Statements on this issue simply do not mean the same to a Simmel and a Carnap, even if they are given the same wording. So the whole argument of Professor Naess can be reduced

to the following: If our views on life were different, so would be our philosophical positions. If I had been Edmund Husserl, I would have been a phenomenologist. This is without a doubt true, but unfortunately with necessity.

(Österberg 1962)

I doubt very much that Österberg would find it adequate to say “Norms cannot be true or false because I think within a frame of reference such that norms cannot be true or false.” As soon as one can formulate a frame of reference, one does not think completely inside it, and one should be able to state whether it is considered to be expressing postulates, self-evident truths, and so on.

There are certain *fundamental* positions found among idealists or Platonists (Georg Simmel, Nicolai Hartmann, Edmund Husserl, Alonzo Church) such that, if they are believed in, one is likely to believe not only in the possibility but even in the actuality of true norms. Just because they are fundamental, it is hard to find a frame of reference that goes still deeper and from which the belief can be *shown* to be a false belief. At least I have not found an empirical or analytical position satisfying this condition. My conclusion is therefore that I do not *know* that (basic) norms cannot be true or false. Aristotle’s position seems to me wise when he denies that principles represent knowledge. What is so fundamental that it cannot be shown to be the case by reference to more fundamental (true) principles is not *known*.

If by a “fundamental frame of reference” or a “set of basic assumptions” is meant what I take it to mean, the ultimately ontological or factual question “What *can* be the case?” has no answer that constitutes a piece of knowledge. One may vehemently disagree that norms can be true or false, but this is no proof of the cognitive character of the disagreement.

In reply to Österberg, I would say that if one sees analytical and empirical frames of reference as special frames of reference at the same level as idealist and Platonist frames, one is apt to consider explications of the frames as sets of postulates rather than insights. In that case, answers to “What can there be?” and “What can be the case?” will be either postulates or derivations from postulates.

Österberg tries to show that by logical necessity norms cannot be true or false. According to him, “ought” has a primary use, and this use is such that it *necessarily* involves someone telling another to do something: it is

true that I ought to do *X* if an authority expects me to do *X*. Why, though, should one obey the authority?

In some instances of “ought,” Österberg’s analysis may be correct, but it is certainly not correct of those instances that are of interest in our present discussion. All authorities may be wrong: they may tell me that I ought to be an informer but I know I ought not. “Why should I obey?” is a pertinent question if I am told by somebody to do something. In judging “I ought to do *X*,” however, we do not encounter a question of obeying somebody else. There is a sense in saying “All authorities say I ought to do *X*, but nevertheless I ought to do *X*.” Whether this is a primary use I consider irrelevant in the present context; I think empirical investigations of the use of “ought” would reveal that “ought” is often used in this impersonal way, and I do not see how one could argue validly against that use in support of Österberg’s thesis.

Thus, hypotheses about the use of “ought” do not warrant our concluding that norms by logical necessity cannot be true or false.

As regards the theory of responsibility and choice suggested by Österberg, I am afraid I do not understand it. Whether I act according to a true norm or violate it, I am in both cases responsible for my action. Karl Jaspers, who seems to hold opinions similar to Österberg’s concerning the “I” and its “freedom,” does not see any incompatibility between objective validity of moral laws and the “inescapable” responsibility of the “I.” It adopts it and enables it to become itself. It seems to me strange that Österberg, from his point of view, can tell another person that norms by *logical necessity* (common to both persons) cannot be true or false. I do not pretend, however, to understand his theory. My remarks are therefore purely parenthetical.

The Principle of Intensity

If you fill your bathtub half full with water at 40° C and then after a moment's hesitation fill it completely, the temperature does not increase to 80°. Forty plus forty is eighty, but because *temperature is an intensity*, more water of 40° C does not increase the temperature. The rule of addition does not apply. One person in a room is suffering from a toothache of a certain intensity. Then another person enters the room with the same kind of suffering. This does not automatically double the felt intensity of any suffering.

In Hiroshima on August 6, 1945, after 9 A.M. a great number of people and animals suffered intensely. We may safely infer that some of them suffered prolonged pain in the terrible realm of maximum intensity. The same day, thousands of miles away, some other people presumably also experienced extreme suffering. With thousands of millions of people on our planet, there are presumably always people in a state of extreme felt suffering. The larger the population, the greater the “statistical” suffering, or *cases* of extreme suffering. There need not, however, be an increase in *felt* suffering. It is important to emphasize the adjective *felt*, because as criteria of pain and suffering we often rely on “objective” indicators, rather than feelings. I add the term *suffering*, because *pain* is sometimes used only for physical pain. On the other hand, *suffering* is sometimes used without im-

The original version of this paper dates back to the late 1940s; in the early 1990s Naess added the discussion on life quality. A paper by the same title, with much of the same material (but based on an earlier draft that does not include the life quality discussion), appears as “The Principle of Intensity” in *The Journal of Value Inquiry* (Dordrecht, Netherlands: Kluwer Academic Publishers) 33 (1999): 5–9.

plied felt pain, as in the expression “suffering a lack of x ,” vitamin B₁₂, for example.

People in Hiroshima wandered around with eyes intact but with the skin of their faces hanging down in a terrifying way. Some of them seemed to be in a state of confusion rather than a state of excruciating pain. If we look at pictures of 100 people in famine districts, our judgment about relative intensities of suffering tends to confuse the awfulness of what we see with the felt pain. Rescuers with limited supplies are in a difficult position. Who has priority?

Thinking of Hiroshima we might say, “What a stupendous amount of pain!” but strictly speaking, the number of people afflicted is irrelevant when speaking of felt pain. What is pain that is *not* felt? Hiroshima was a catastrophe of staggering dimension, but the dimension is not an intensity. It may *cause* variation of intensities but is in itself irrelevant.

During the Nazi regime more than a hundred thousand people were severely tortured. Some torturers were “scientific,” trying to use only a sufficient dose to get hold of all the information the victim could be *rationaly* supposed to possess. Others started with extreme torture immediately and continued indefinitely, trying to cause the most insufferable pain imaginable. If the tortured started to offer information, their suffering tended to increase owing to their terrible guilt feelings. Unfortunately, the situation nearly always was such that no one could rescue the victims even when the exact location of the torture chambers was known.

At a given moment one may ask, What is the status of felt pain on the planet? With so many people in so many precarious situations, the answer is plain: there is always too much felt pain and suffering.

The next question to be answered is, What can be done to reduce felt suffering, given limited power and opportunity to do so? That is, what can be done by individuals and by institutions? What sort of collective action is feasible? This leads immediately to the question of priorities. If person *A* is obviously in extreme pain and *B* is only in moderate pain, and we have equal opportunity significantly to reduce or even eliminate the pain of one and only one of them, philosophical ethics tell us, or at least some of us, to act on behalf of *A*. What about a situation, though, in which person *A* suffers extreme pain; hundreds of other people, group *B*, suffer moderate

pain; and 10,000, group C, suffer pain of slight intensity? Do numbers count?

Here the maxim “Reduce maximally the pain and suffering of a maximum number of people” is relevant, but of little help. Numbers do count, and for good reasons. It affects us more strongly to hear about a catastrophe like that of the *Titanic* in which at least 1,500 people perished than to learn about a little boat capsizing, killing the two people in it. If, as rescuers, we have to choose, we normally view sheer numbers as relevant.

What if the choice is between saving *one* person from extreme suffering and a *thousand* from moderate pain, assuming that the thousand do not interact with one another as people often do on a boat? My answer is that we should try to relieve the person who experiences extreme suffering, but I have to admit to a feeling of absurdity when I increase the numbers and decrease the difference between the intensities of suffering felt. Suppose we are in a region of starvation, and suppose the many suffering moderately could easily move into situations of greater suffering. I feel we should then help the many who suffer moderately, and explain the situation to the one person suffering much more. I expect he would say something like, Yes, I see your dilemma. I am glad you have decided to help the others.

One thing that unavoidably crosses my mind is that we should consider consequences of more remote kinds in addition to the immediate decrease or elimination of pain. If we are able to help a vast number of people by a decision or action, this may have more beneficial and lasting effects, also in terms of expected new pains, than if we are able to eliminate the severe pain of a single person. I expect that the situation is fluid and that decisive help to a group of 1,000 sufferers or potential sufferers could seriously decrease the possibility that many of them, or their children, would reach a high level of suffering in the future. Although it is often most reasonable, in practice, to let the quantity of persons affected influence our intervention strategy—the *principle* of intensity is not diminished.

No norm is isolated in practice. In “real life” any norm is part of a wide field of norms that interact. Norm conflicts are normal. Moreover, the uncertainty of appraisal enters the picture: under what circumstances are we competent to decide whether a person is experiencing such and such a level of intensity of suffering? Furthermore, whether we like it or not, in prac-

tice we generally think about whether a person deserves to be helped. Age is also a factor. For example, the slight but evident suffering of small children may count more than that of their parents. Babies dying of hunger may suffer very little or, according to physicians, be beyond suffering. They tend to be treated because of the anguish of their parents. Furthermore, dignity is also a factor. Many people *suffer* indignities and wish to be relieved of them more than any suffering diagnosed by a physician.

The strong norm to relieve fellow human beings in situations of intense suffering has sometimes resulted in a rescue of someone who seriously and insistently asks to be left alone. A well-known example is that of old Mr. Fukai. After the explosion of the atomic bomb on Hiroshima, only his head appeared above the rubble of his home. He was suffering intensely. A warmhearted person saw him and started to pull him out because fires would otherwise consume him. But Mr. Fukai, as polite that day as he was on all other days, begged not to be removed from his own home. Despite his plea, he was carried away from his burning home. The warmhearted person waded into the nearby river in order to be away from the heat. Mr. Fukai was able to escape from the refuge his rescuers had put him in. He was grabbed again, and he escaped again. He ran in the direction of his burning home, where he presumably died in the fire. Did Mr. Fukai escape a suffering greater than he would have experienced if he had been "rescued"? I would say he probably did. It is difficult for me to see the justification of grabbing Mr. Fukai, even if his behavior might be interpreted as an expression of insanity in a popular sense of that word. An individual should largely be accorded the competence to estimate his or her own suffering, and persistent mental suffering should be judged as important as physical suffering.

An old colleague complained to me that his doctor concentrated on fighting his deadly illness, neglecting the less dangerous, but much more debilitating ones. He did not mind dying, but while he lived, he was interested in the quality of his life. He neglected the main orders of the doctor and died sooner than if he had subjected his will to that of the doctor. This brings us to the question of whether there are important exceptions to the rule that intense suffering should, if possible, be relieved; whether the wish of the sufferer about how to alleviate his own suffering should be respected. Terminally ill patients who find their lives completely meaningless and

who suffer both from this mental condition and from physical pain are, in spite of persistent requests to be given assistance in dying, in many countries denied this assistance. I expect such resistance to disappear gradually, but a feeling of the sacredness, not only of life, but of staying alive, plays a role here.

Finally, consider an example of a situation involving a form of extreme mental suffering that is frequently overlooked by social institutions. When Norway was liberated from the Nazi occupiers in May 1945, I had the opportunity to locate a group of people likely to be in a situation of extreme mental anguish. When the gate of the huge Nazi concentration camp near Oslo was supposed to be opened, parents streamed to the gate to meet their imprisoned sons. Some of the young men, however, did not show up. For the parents, the thought was realistic that their sons had been killed, or even tortured to death, by the Gestapo, but they hoped frantically that their sons were alive somewhere. It was a meager help, but not insignificant, to investigate the cases and offer certain evidence to the parents about what had happened to these young men. They insisted on getting details. They woke up in the middle of the night considering all the dreadful possibilities. It had a devastating influence, and those engaged in jobs had problems; some could not continue with their work. Of the young men who had not been tortured to death, some had died of "exposure," for example, in extremely cold cells; others had managed to use poison pills to avoid imminent torture. It is not surprising that this group of parents could not reckon with help from ordinary social institutions, including the Red Cross, which had much work to do of a more ordinary kind. More was done to prosecute and imprison the quislings, those who directly or indirectly assisted the occupying Nazi power, than to assist the victims.

In short, not enough is done to save people in a state of intense pain and suffering. We forget that there is, in a sense, never a greater reduction in *felt* pain than when an individual is saved from extreme suffering, and that "statistical suffering," the mere numbers, does not always matter. The false *quantification* of felt suffering tends to quell efforts to reach the victims.

In countries where torture is used regularly and ruthlessly, people who fight year after year against those in power daily face the prospect of being tortured themselves. Very little, in my opinion, is done to organize secret

routes out of these countries, so that the victims themselves can get out on short notice—and back in when the situation is more favorable. Such routes played an important role during the Nazi occupation of many European states. Thousands of people were engaged in saving others from continued torture. Governments today, however, take few risks to put outside pressure on dictators in spite of the improbability that the dictators will harm the rich, industrial states. It is an international task to support human rights activists in every way, including direct, nonviolent actions.

There are organizations specializing in helping people who have been tortured to restore them to normal life, but they receive little publicity. This is probably because most people avoid the thought that at every moment of their lives people are being tortured somewhere in the world. Pictures of land mines and their victims helped to secure agreements to stop the use of land mines. There is an understandable reluctance to publish drawings of the physical effects of torture and a reluctance to interview people in psychiatric care who are unable to resume normal life. From insistence on inspecting the possible manufacture of biological weapons, we must proceed to insistence on inspecting the treatment of prisoners.

In general, there is a tendency to neglect “quality of life” in favor of quantity of objects and services, which supposedly secures quality. Suggestibility is a formidable force, and it is easy to increase to some extent the quality of life by noticing every day the great number of *means* available. “See what I *have* to secure happiness and avoid depression! I have everything!” Every *thing*, yes, but we all agree that it is unrealistic to believe that a steady stream of more and new things may or must increase an intensity called quality of life.

At a deeper level, however, there is a tendency to help where we believe we *see* what is most needed. The “needy” are conceived to be those *lacking* something, and they themselves naturally express their wants in those terms. What *is* needed, more than anything else, is to relieve intense and prolonged felt suffering. The reduction in the material standard of living in the richest countries of the world does not help suffering in the poorest if the decrease of consumption in the rich is not combined with an increase in the poorest. What complicates matters, however, is the tendency to discount the suffering of future generations of human and other life-forms.

The increase of consumption of the poorest of this generation may be of a kind that will decrease the quality of life of future generations.

The discussion of the principle of intensity applied to felt suffering has brought us a long way. We face the question "To what extent do policies in the poorest countries focus on felt suffering and to what extent do they focus on acquiring things that symbolize an increase in material standard of living?" To what extent do the rich countries have responsibility for making the poor countries unduly focus on the things that can be added rather than on what does not follow from the law of addition?

Let my closing words be: Let us not forget that feelings are facts, but not like any fact; they are intensities. They do not obey certain rules of addition. There are feelings so terrible that rescue deserves a higher priority. Awareness at some moment that someone is being tortured spoils that moment. It is to be hoped, however, that more people respond with the question "Is there anything I can do?"

Creativity and Gestalt Thinking

Long and intense training is required to express in words major aspects of a spontaneous experience. We enter a room and “the room” makes an impression upon us that we express in conventional terms by *light, dark, cozy, small, cold, beautiful*, and so on. These terms, however, are (of course) class terms. We experience an *instance* of coziness, not coziness in general. By uttering “cozy” we have only started on a verbal report, namely that of the particular content, different from any other, that makes us utter the general term *cozy*. Perhaps it was the first time we entered the room; the next ten times may also elicit a spontaneous experience, an aspect of which makes us utter, for example, “cozy as usual,” “cozier than usual,” or which does not make us utter anything like that. We may for a moment think “not *so* cozy,” or there is at least a faint or weak feeling of disappointment which seems to relate to a less vivid or less convincing impression of coziness.

It is common to look to poetry for vivid and beautiful verbal expressions of spontaneous experiences.

The yellow fog came creeping down
 The bridges, till the houses' walls
 Seemed changed to shadows and St. Paul's
 Loomed like a bubble o'er the town.
 (Oscar Wilde)

Some expressions reveal separation from the spontaneous: “seemed.” Others do not—for example, “yellow fog came creeping down” instead of

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the reflective “yellow fog seemed to be creeping,” and “changed to shadows” instead of “looked like shadows” or “seemed to change to shadows.”

The poet makes us more or less adequately create spontaneous experiences, or better, elicit spontaneous experiences, some aspects of which are inspired by the poem. In a flash we see yellow fog creeping down.

Accomplished poets, writers of novels, and a variety of artists use words in brilliant ways to express aspects of their spontaneous experiences, but of course we all verbalize, however crudely or conventionally. A spontaneous experience may be of burning intensity but our words flat, dull, and conventional.

In the case of artistic expressions, creativity is obvious, and the spontaneous experiences are the obvious, infinitely rich source. Can the same be said of creativity in mathematical physics? The physicist is not asked to express a spontaneous experience, but his need to use vernacular terms such as *waves* and *particles* for immensely abstract entities reveals dependence on concrete contents of experience in order to create. What is called the function of imagination, whether in writing novels, inventing gadgets, or constructing physical theories, is to elicit spontaneous experience where we “see” something. Instead of keeping only to the algebra involved, the physicist sees the equation in the form of a “real” wave. However abstract the reasoning, the mind needs concrete contents. The world of metaphysics is polluted by creatures suggesting *aspects* of vivid spontaneous experiences.

Within contemporary literature loosely referred to as postmodern, we find interesting ways of speaking that *seem* to tell us that our society “constructs” reality. Expressions such as “the (dominant) conception of reality within a society” are avoided. It is sometimes suggested that we never experience reality as such because we are limited to what our texts and narratives instruct us about what is real.

Against this view it is pertinent to insist that personal spontaneous experiences (of gestalt character) acquaint us with the real. The richness of those experiences is such that verbalization can only refer to aspects of them. The gestalt character in an obvious way implies richness. When in a certain situation a subordinate tonal gestalt within Beethoven’s Fifth Symphony is experienced by a definite person who knows that symphony well, aspects of the whole symphony and perhaps aspects of recent experiences of going to a concert color the content of the *total* spontaneous experience.

The complexity may perhaps be said to preclude the formation of a text that adequately expresses the experience, that is, adequately describes the total spontaneous expressions (in their full richness). Rarely does a situation occur in which we are motivated to engage in such an endeavor. Moreover, the need to act requires us to focus on definite aspects of the spontaneous experiences. The yellow fog creeping down a bridge over the Thames *instantly* elicits a decision to wear a coat or some other decision.

It has been suggested that the immense power of the new forms of mass communication narrows down our conceptions of reality in such a decisive way that our spontaneous experiences reflect what is mass communicated, and our capacity is destroyed to experience anything that is squarely incompatible with mass media.

The importance of increasing our awareness of the influence of mass communication is obvious. It should not, however, diminish the trust we have that we are able to make full creative use of our access to reality through our own spontaneous experience. The confidence of having a *source* of creativity that never disappears (until our mental capacity completely disappears) might be undermined by speaking as if we are imprisoned in our conceptualizations—our socially accepted metaphors and texts. Spontaneous experience transcends personal, social, and cultural specifications. That is, any attempt to nail down the dynamic, process-oriented character of gestalt experience by specifying a person, a society, or a culture, pretending that the *gestalts* belong to a definite kind, is in vain. The attempts by historiographers to characterize epochs (the Renaissance, Baroque, Enlightenment, and Romantic periods, for example) are frowned upon by historians who delight in complexity, not uniformity, in irregularities as much as in regularities. When we conceive an event as part of a whole, for example, as part of a campaign or a war, the conception of the event is furnished with *emerging* properties. The event, defined in terms more or less common to the members of a group or society, becomes part of a social stereotype, but this does not totally inhibit the creation of nonstereotype *gestalts*. The range of creativity may be reduced, but it is not destroyed.

The formulation of cohesive communities and societies is said to depend on shared values, on consensus in vital matters of life. These have gestalt character, but even in traditional societies with stable shared values,

processes of change are going on. They depend on creativity, and the main source is the richness of spontaneous experiences.

If in a storm, for a moment I have the impression that a tree is going to hit me on the head, there are spontaneous experiences of tree-and-me, but in general, spontaneous experiences focusing on a tree do not also contain me. There is not a subject-object cleavage in every spontaneous experience, only in a small subgroup of them. *Cogito ergo sum* does not seem to hold necessarily unless an instance of cognition is a gestalt with a “me” as a subordinate gestalt. It is not easy to imagine, but a human being capable of focusing steadily on something else would be aware of a subject, a “me.”

Children are apt to lose much of their creativity when they are repeatedly confronted with statements from adults such as “No, it is not *really* so.” Consider a child who sees a dog as threatening. Instead of saying “You are *wrong*, the dog is not threatening,” one may insist that it will not bite or do other things the child fears may happen next, or that running away is not advised.

The richness and intensity of spontaneous experiences often induce strong expectations about what will come next—they may induce spontaneous actions. Here the adults, with their largely socially determined common sense, are indispensable as guides. However, if they use terms such as *wrong*, *mistaken*, and *nonsense* or react with a laugh, the child starts to distrust what he experiences. He starts to believe in a social and objective reality that is only a kind of meeting point within a community, a consensus reality devoid of originality, and only a kind of a skeleton: a mass classification of items. “You ask what you see there? It is just a common daisy!” Spontaneous experience, however, is never *just* a specimen of a class, the vast *class* of daisies. What is experienced spontaneously is something that never has been experienced before and will never be experienced again.

The gestalt terminology helps us avoid the conception that “what there is” is a mass of things and their external relations. The relation between gestalts is that of more or less comprehensiveness, like the gestalt units within the larger units of Beethoven’s Fifth Symphony. A performance of the symphony is only a collective name, socially essential, to assure geographical unambiguity.

What is experienced by a member of the audience is not simply the symphony, but the symphony in a setting that is peculiar to each member.

There will be a unique series of spontaneous experiences of gestalt character. A young composer listening will perhaps be inspired not to create within the style of Beethoven, but to write something in a grander style than he is accustomed to. He or she will treasure and recapture the total experiences. The other members of the audience may through their particular gestalt experiences increase what is called their originality. They communicate in less conventional terms and metaphors.

Education is officially concerned with learning, but unlearning is a phenomenon that ought to be taken more seriously. One learns to neglect certain aspects of spontaneous gestalt experience; certain, mostly very subordinate gestalts lead to socially advantageous actions. The larger frameworks are socially irrelevant, misleading—you will soon be called a dreamer if you stick closely to the more comprehensive or idiosyncratic aspects. Utilitarian, pragmatic, and practical concerns are like pressures reducing the intensity, normalizing the seemingly chaotic changes of what is experienced, standardizing and simplifying. We unlearn in a way in order to be useful citizens, but mostly or always at the cost of originality and creativity. What can be done in education is to oppose the extremes of unlearning and to try to enable children to change viewpoints from the action-oriented to the focus on gestalt experiences, and back again. As it is now in at least some industrial states—for example, the Scandinavian—education is increasingly utilitarian in spite of a material richness that should open great opportunity for a wider acceptance of the nonutilitarian.

Gestalt Thinking and Buddhism

Impermanence

In the oldest forms of Buddhism, monks were reluctant to answer metaphysical questions. If answers were offered, they were expressed undogmatically: take it or leave it. Even if true, a philosophical opinion might be of little help, or even a hindrance on the Eightfold Path.

Permanence, even eternal being, is often asserted of substance (Descartes, Spinoza) and of some other types of metaphysical entities beyond or behind "appearance." Gestalt ontology considers these entities to be *entia rationis*, abstract constructions created (by reason) to facilitate rational analysis.

The concrete structure may have a lower or higher degree of permanence. The structure of an ecosystem may show notable change during a century or practically none at all. It may show a short or long *half-life*, in the sense that this term is used in the theory of radioactivity. Abstract structures are timeless, but reason employs them for a short or long time.

The concrete contents of reality are shifting. Discontinuity and universal impermanence characterize the world of gestalts,¹ perhaps not quite in the sense of Buddhism, but in a closely related sense.

Anatmavada and Self-Realization

The "doctrine of no (permanent) Self" is essential to both Buddhism and gestalt thinking.

This article was written in 1985. It is being published here for the first time.

In my personal outline of a deep ecological philosophy (Ecosophy T), “Self-realization!” is the logically (derivationally) supreme norm, but it is not an eternal or permanent ‘Self’ that is postulated. When the formulation is made more precise, it is seen that the Self in question is a symbol of identification with an absolute maximum range of beings. Selves are frequently recurring entities, or “knots,” in the structure of contents, but they do not have the concreteness of contents! Ego, self, and Self are *entia rationis*.² The same applies to a term such as *self-realization*. This status as instruments for thinking, however, does not exclude such terms from appearing in important statements. “Only through one’s self-realization one can attain nirvana . . .,” says Masao Abe in his article (1985: 31) concerning Dōgen’s term *buddha nature* (*buddhata*).

Everything May Become Buddha

“Grass, tree, nations and lands, all without exception attain Buddhahood.” This is taken to be a motto in the Japanese Tendai tradition (Nara 1985: 1). Tentatively, I take “all without exception” to refer to gestalts, not to fragments or relata in abstract structures. Thus, it is not asserted that a tree defined solely by its primary or “objective” qualities may attain Buddhahood. Rather, I assert that attainment of Buddhahood is only permissible for gestalts, such as those that connect the tree with all qualities and attain semipermanence through recurring traits.

There are, of course, a variety of interpretations of “becoming the Buddha,” but some are closely related to the concepts of Self-realization through identification. The Buddhist compassion extended to all beings implies “seeing oneself in all things,” a process of identification. Without this, things appear foreign, *devoid of life*, and impossible as objects of compassion. If I have understood Abe correctly, Dōgen’s concern for elimination of the process of generation and extinction is central. The identification of human beings with animals, plants, and other natural objects rests on a common basic cosmic characteristic: generation and extinction.

There is a question of how wide a range of beings may be said meaningfully to realize themselves. Animals, yes; plants, yes; but including a wider range of things further dilutes the very concept of realization and

Self. There is a limit here, but it is not definite, and the options regarding how to trace it are many.

The similarity to certain forms of *mābhāyana* consists primarily in the tendency to widen the range of “becoming Buddha” or “realize the Self” beyond what common sense in our culture seems able to digest. The meaningfulness of everything becoming Buddha is in part dependent on the disappearance in (certain forms of) *mābhāyana* of *distinct* things. This leads us to the difficult problem of how to interpret the Buddhist *anatmavada*, the negation of the existence of selves.

Selves as Processes

Personal pronouns and all other forms of language referring to individuals and groups of individuals are used freely and in a standard way in fundamental Buddhist texts. Consider the following examples:

“Monks, do you not speak that which is known by yourselves, seen by yourselves, found by yourselves?”

“Yes, sir!”

“Good, monks! You, monks, have been instructed by me through this timeless doctrine which can be realized and verified, leads to the goal, and can be understood individually by the intelligent.”

(*Majjhima Nikaya*, I, 265)

Engineers lead water,
fletchers make arrows,
carpenters form the wood,
wise men master themselves.

(*Dhammapada*, verse 80)

In the sentence “wise men master themselves” the word *atta* is used (Sanskrit *ātman*). There is, in this passage and in others, no hesitation in proclaiming that wise men (*pandita*) have selves. The selves are tamed or mastered (*damayanti*), but not destroyed.

The famous sentences in the *Diamond Sutra* must, as I interpret the text, be understood in a way that does not make the use of personal pronouns and terms such as *self* questionable or even illegitimate. The individual selves are processes or aspects of processes, always changing, but always

showing an important, limited continuity and permanence. The words of *Samyutta Nikaya*, I, 135, are instructive:

Why do you then harp on the word “person”? Mara, you are starting from wrong premises. This is nothing but a lot of processes; no “person” is found here. For just as the word “carriage” is used when the parts are combined, so the word “person” is commonly used when the factors are present.

One may, as in this translation (which is Rune Johansson’s),³ render the word *satta* with “person,” but a more general term may also be used. What appears to be said is that no entities exist that do not have the character of processes.

To “realize oneself,” as I use the phrase, corresponds to some degree to the Buddhist expression “to follow the path.” Each must follow his or her own path, because of different experiences (see the quotation from *Majjhima Nikaya*), but the different paths, if followed far enough, lead to states that have something in common.

The ultimate goal in Buddhism is indicated by the term *nirvāna*. However interpreted, *nirvāna* cannot be understood in terms of Hindu metaphysics. The idea of a universal, absolute *Ātman* is foreign to Buddhism. As I use the expression “realizing the great Self,” it does not correspond to a Hindu idea of realizing the absolute *Ātman*. If I should choose a Sanskrit phrase for *self-realization* I might select “realizing *svamārga*,” “realizing one’s own way.” The “great Self” corresponds to the maximum deepening and extending of the *sva*⁴ through deepening and extending the process of identification. In any case, the great Self is an *entitia rationis*, not a concrete content or the set of all concrete contents—but it is still unclear if such a concept can even be defined without paradoxes.

Once the status of egos and autonomous selves is downplayed, there is little left of the foundation for making sharp distinctions between anything. The *warning* not to take individuality too seriously or literally is forcefully expressed in the *Diamond Sutra*:

Subhuti, what do you think? Let no one say the Tathagata cherishes the idea: I must liberate all living beings. Allow no such thought, Subhuti. Wherefore? Because in reality there are no living beings to be liberated by the Tathagata. If there were living beings for the Tathagata to liberate, he would partake in the idea of selfhood, personality entity, and separate individuality.

The special wording of this passage should also not be taken literally. The idea of liberation has validity, but one must not absolutize the distinctions and believe in substantial existence.⁵

Transcending Subject-Object Dualism

The belief and acceptance that all whole beings can attain Buddhahood depend upon the rejection of subject-object dualism. That is, one must abandon the sentiment that there is always and always must be an ego involved in experience. Appeal to spontaneity, perhaps especially spontaneous experience in nature, is favorable to a detached view of subject-object relations. The nondualism in Buddhism is sometimes expressed verbally by saying that all beings are one, or that each being is one with all other beings. Such a formula must not be taken in the counterintuitive sense that, for example, I cannot be cold and hungry and somebody else warm and satisfied. The formula does not imply rejection of personal pronouns or any psychology of the ego and self.

It is an interesting problem to formulate clearly the views that have rejection of subject-object dualism as a common characteristic. Whatever way we formulate the nondualism, adherents of deep ecology tend to feel sympathy with views such as the following, expressed by Yasuaki Nara:

[I]n Dōgen, through the negation of the egocentric self, whole being, including man, animal, mountains, rivers, grasses, trees etc., is one with him, making both nature and himself encompassed within the world of the Buddha.

(Nara 1985: 2)

Referring to a poem by the poet So-to-ba “in which the sound of the mountain river revealed reality and the poet had *satori* in listening to it,” Dōgen emphasizes the oneness of So-to-ba and the sound of the river by asking whether it was So-to-ba who had *satori* or the river (ibid., p. 4).

As I see it, a happening refers to a whole constellation or gestalt of relations. “Satori!” might well be an expression of a kind of happening. In that case, it is not evident that one should be able to sort out a subject “having” satori, or an object eliciting satori and revealing reality to the subject. The satori as a content is one, and only an analysis of abstract structure leads to definite conceptions of parts of the whole.

The *words* of Buddhaghosa can be used in proclaiming the reality of gestalts rather than subjects and objects:

For suffering is but no sufferer,
 not the doer but certainly the deed is found
 peace is but not the appeased one,
 the way is but the walker is not found.
 (*Visuddhimagga*, XVI, 90)

The term *suffering* (*dukkham*) may be a good name for a class of gestalts. Each member of the class has a structure comprising subject, object, and a medium. The term *sufferer* (*dukkhita*) suggests a narrower connotation, pointing merely to a subject who suffers. Similar reflections may be made concerning the other pairs of opposites in the quoted text.

The indefiniteness and plurality of conceptual analysis are clearly indicated in what Yasuaki Nara says about another poem, one by Matsuo Basho:

Old pond
 A frog jumps in
 The sound of water

“Here Basho and surroundings are interfused; Basho, the frog, and the pond are one world and the one who jumps into the water may be a frog or Basho himself; the sound is of the water or of the frog or even of Basho” (Nara 1985: 5).

The poem is from the point of view of gestalt thinking a high-level expression of a concrete content. Conceptual analysis may split it up, but it has gestalt status, and the splitting will be more or less arbitrary. This applies even to the subject-object distinction. It may or may not apply as a significant abstract structure attributable to the gestalt.

Western historians of world literature tend to create conceptual analyses that stress the *internal* life of the mind. A Zen Buddhist poem “about” the branches of a tree might in this tradition be explained as follows: The poem tells about the sadness expressed by these branches, but in reality the poem expresses the sadness of the poet. The poetical style requires a projection of personal states of consciousness into objects of the external world. This form of analysis makes Zen poetry and ontology into a subclass of Western poetry and ontology. Yasuaki Nara proposes a translation that is

not essentially different and offers the following to the above analysis: “This poem is *not* a mere description of the scene communicating the quiet atmosphere but the expression of the poet himself, absorbed in the quietude” (ibid., p. 5).

Nara resorts, in explaining the poem, to the distinction between the poet and the scene, a distinction similar to that between man and environment in the shallow ecology movement.

What the both-answer can do in these matters is to delay, or hold back, the introduction of the subject-object distinction by admitting a diversity and richness of ontologically homogeneous traits (rather than “properties”) of a constellation. Primary, secondary, and tertiary traits are completely on par. The secondary and tertiary are not in need of a subject, a mind, a consciousness in the form of a container with subjective ponds, frogs, trees, and water inside it. The concept of “things in themselves” is held back because we do not find contradiction between dissimilar utterances about “the same thing.” (“Things with properties” are described in terms of “fields”—comparable to what occurs in physics.)

The both-answer has, of course, a rather limited function; the same holds for the notion of “concrete content” as contrasted with “abstract structure.” As starting points of reflection about “things,” however, they liberate us from certain prejudices.

Things in Themselves and Values in Themselves: “All Things Have Value”

There are some complications worth mentioning at this juncture. One must distinguish subject-object dualism from subject-object distinctions in general. The term *dualism* is used when the distinction is said to be fundamental, absolute, and pervasive. Dualism is accepted in the theory of duplication and in the theory that things in themselves do not have qualities. Everything we experience has such qualities. Rejecting them means establishing duplicate things inside the mind.

The outstanding dualist of Western philosophy is René Descartes. Many of the contemporary efforts to avoid the paradoxes and counterintuitive consequences of dualism are conceived in terms of anti-Cartesianism. It is not sheerly coincidental that Descartes is also the main proponent of

the view that animals are insensitive machines and nature has value only as a resource for human beings. However, I shall not attempt to explore connections between dualism and these historically significant views.

The insistence that there is nothing, no substance, “behind” the concrete contents corresponds to the Buddhist conception of *sarvam tatbatvam*, “all is such as it is.” However, the conception of a world of concrete contents and fields rather than things in themselves may seem to undermine our concern for individual beings—animals and plants—and for abstract entities such as species. This need not be so. Spontaneous experience is not sense experience. It is experience of more or less stable things and processes of “the world we live in” (*Lebenswelt* in the terminology of philosophical phenomenology). When we see an orange we see a thing, not a patch of yellow or orange or greenish color. When meeting an animal, we meet in our spontaneous experience something enduring and self-propelled. The essential aspect of the ontology of contents is not a negation of enduring beings, but of the omnipresence of the “we” or “I” and the duplication in external and internal worlds.

These words are meant to introduce my comments to Yasuaki Nara’s interpretation of the Japanese notion *inochi* (life). He thinks it slowly came to refer to the intrinsic value of all beings. “Gradually, the Buddhist precept of *not-killing* has come to be understood not only as not taking life of animals, but also not taking *inochi* of all things. Sometimes it has further been said that *not-killing* is to let *inochi* live” (Nara 1985: 7).

The notion of intrinsic value as some form of life in a broad sense has important consequences. In some countries, the deep ecology movement is closely allied to lifestyles that are, in part, characterized by careful and respectful handling of things more or less in general, not only of sentient beings, not only of living things in the sense of organisms. There is remorse for taking their *inochi*.

The Japanese custom of *kuyo* (memorial service) must be mentioned here.

On a day sometime in Autumn, eel-dealers, restaurant managers and some ordinary people representing the general customers gather together to have a religious service. A small altar is constructed and one or more priests chant Buddhist sutras to the eels who were killed and eaten by us to nourish our

lives. The Japanese do not exactly believe in the existence of a soul of an eel. The implication of the ceremony lies rather in the complex feelings of remorse for taking their lives and *inochi*, of thanks, and of soothing their souls, if any. . . . In the Edo period, the housewife and daughters of each home were supposed to do *kuyo* for the used or broken needles with a sense of regret for their lost *inochi*, thanks, and also with prayers for the enhancement of their sewing talents. Since the Meiji period, the needle-*kuyo* has come to be observed by some temples or Shinto shrines collectively annually on February 18. . . .

Some medical doctors and nurses sometimes join, bringing the needles used for injections. *Kuyo* is also done for old clocks, dolls, chopsticks, spectacles, tea-whisks, etc. To sum up, the traditional view of nature in Japan first of all does not make a clear distinction between man, animals, and things. Though the individuality of each exists, all are felt to be part of the one world of the Buddha, each revealing its value.

(Ibid., pp. 9–10)

This horizontal or antihierarchical way of feeling things is gained by using the notion of concrete contents as a starting point. Or, to be more precise, the kind of philosophy I think comes closest to truth and that I feel at home with supports this kind of horizontality, and the notion of concrete contents facilitates its formulation.

If we think of some of the cruelest parasites, inflicting slow, painful death on their victims, it is difficult to invest them with any sort of positive intrinsic value. That analysis applies even more strongly to chemical and other weapons—but they certainly are “things” and therefore seem to be eligible for *kuyo*.

In short, what about the “problem of evil” in relation to the concept of intrinsic value of all things? Clearly this concept is as vulnerable as any other that tries to attach uniform positive value of some kind to all that is felt to be real (*sattva*). There is a need for clarification of the meaning of the intrinsic value conception, but I cannot go into the matter here.

The *inochi* and *kuyo* phenomena are primarily cultural in a general sense, not philosophical, but they furnish irreplaceable and invaluable raw material for philosophical reflection. In many Western countries, environmental struggle involves direct actions and violent confrontation. The norms of nonviolent group conflict as worked out by Gandhi and others ex-

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clude violence not only against the opponents, but also against their machinery and other equipment that, from a direct causal point of view, destroy life and life conditions on a vast scale. The norms against so-called sabotage involving such equipment are based on deep attitudes that express themselves in cultural phenomena such as *inochi* and *kuyo*.⁶

Kierkegaard and the Values of Education

Kierkegaard's *Concluding Unscientific Postscript* can be used in a more or less futile effort to construct a total philosophy of Kierkegaard, or it can be taken at face value as an independent writing covering a great variety of subjects. The latter use is the more fruitful for those concerned with the crisis of higher educational institutions, such as universities, in affluent societies. If we take it as a completely independent work by a seeker and humorist, Johannes Climacus, we may interpret its key terms (*the ethical, inwardness, passion, involvement, subjectivity*, and so on) solely in their context within one particular text. It turns out that its importance, thus considered, is much broader and its application much wider than if key terms are interpreted in the light of what, for example, is said in *Eitber-Or*.

There are in the *Postscript* at least a dozen subjects with a bearing on the educational crisis.

Against Pretentious and Premature Systems

The delightful anti-Hegelian sayings of Johannes Climacus are today applicable to every pretentious explicit or implicit systematization covering controversial matters. They hit the belief in any scientific worldview based on (normative, decision-making) observational methodology. Such views are systems, and the question "How do they start?" is relevant. How does the system begin with the immediate? That is to say, does it begin with it immediately? Textbooks used in schools and universities propagate special

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points of view in an authoritarian way. The young are asked to kneel down before nationalist, theological, historical, "scientific" dogmas and myths. Their own sources of myth-building and belief are ignored or made fun of.

The system-building most dangerous to the inner, individual sources of belief, including valuation, is today the interpretations provided by popularizers of science and by "experts" in administration. We need a neo-Duhemian stress on the difference between more or less certain and indubitable results of scientific or technical research, on the one hand, and interpretations and interpolations, on the other. The latter can exhibit vast differences in direction, but owing to ideological and other idiosyncrasies of teachers and parents, the young are stuffed with one interpretation, to the accompaniment of a negative inducement to allow their imaginations to play with other possibilities. Consequently, the very sources of creative personal belief are apt to dry up, with resulting loss of individuality and interest in spiritual matters. The vast textbook systematizations foster the illusion of a preexisting world common to all individuals in which they all live, one that is known in all important respects. We need to stress a pluralism of worldviews, of historical interpretations, of views on human existence. The unspoiled young feel that what is already there, preexisting and unchangeable for the individual living now, is only a skeleton of a world, an abstract structure, a set of invariances, without color and individuality. It is up to them to shape and give color to the world of today and tomorrow.

It is the choices of each individual, the process of finding himself, that gradually illuminates that particular world he is living in. Kierkegaard teaches us that there is a source of inner life that, if not clogged, generates values and sets of value priorities, that is, in short, an inwardness; and that truth in the abstract, as mere agreement with external observation, has no place for the individual if not related to that inwardness. In our time we stress the difference between results that can be recorded and stored in a machine, and a result incorporated in the personal worldview of an individual. The aim of the educator cannot be to multiply the former, but to bring about the latter.

Lack of space unfortunately precludes extensive quoting from the *Unscientific Postscript*; I can only invite readers to see for themselves how the critical remarks on Hegel's system and on systems in general are admirably suited to contemporary textbook authoritarianism and intolerance toward pluralism.

Correct Versus Deep Choices

The *Unscientific Postscript* contains a number of unsurpassed maxims stressing the importance of making personal choices. What counts, according to Johannes, is the seriousness, pathos, energy, genuineness, enthusiasm, and depth of choice. A choice may be taken as deeper the more it touches the system of attitudes as a whole, that is, the more radical or fundamental it is. Every deep choice creates a discontinuity; the individual develops into something different from what he was before, and something more self-made, autonomous. Only through such choices can the youngster develop into a strong personality. Only if he is able to “go into himself,” concentrate and listen to more or less immature impulses, and have the courage to follow them, only then can the growth of personality withstand the external pressures of parents and teachers trying directly to influence choice. Kierkegaard stresses this “consolation of personality” through personal choices. The ability to choose is itself a function of success in choosing—not success in the external sense of doing the right thing (socially) or believing the truth (scientifically or theologically), but success in overcoming compulsion from the outside or inside.

In higher education, there are choices to be made: what to learn, how to learn, how much to learn, how to use free time, how to establish genuine personal relations—and which kinds of relations—with fellow students and teachers. In principle, the choices must be made every day: there is no automatic transfer of decisions from day to day. These choices are classifiable as correct or incorrect only at superficial levels. The deeper choices have a purely personal relation, an individual component: is the chooser in truth?

To Hold True Opinions and to “Be in Truth”

Kierkegaard does not belittle the importance of facts and factual knowledge. On the contrary, the inner tension of the Christian believer can only develop if he takes the facts of historical and other sciences seriously, for only then can the paradoxical character of belief make an impact on him. Kierkegaard’s maxim, that truth is subjectivity, has the function of stressing the importance of the relation of the individual to what he believes is

true. The individual can be in truth or be in untruth in relation to propositions that have personal relevance. If the personally relevant factor of objective truth has been contemplated and chosen, the individual is in truth: where there is social pressure, there is untruth. In moments of choice the individual is alone. Through the artistic use of paradoxical terminology Kierkegaard has provided us with a rich store of expressions stressing the personal aspect of knowing.

Applied to institutions of higher education, this means that they serve depersonalization, uniformity, indifference, "other-directedness," if they limit their concern to teaching truths (which are in any case mostly mere conjectures), neglecting the individual's own relation to truths. The authority of Kierkegaard is sometimes used to belittle scientific research and objectivity. Seen another way, however, the researcher tries to be intellectually honest and open-minded in his choices, and the dedicated researcher requires his own kind of endurance and faithfulness as he proceeds (like the historians of the Bible) along the infinite "road of approximations." Research, therefore, is one of the professions admirably adapted to test inwardness and ethical stamina. Actually, many youngsters have a clearer view of the scientific attitude than many teachers. By giving them suitable personally (but not necessarily socially) relevant tasks, we can maintain their respect for unending research (but not necessarily for the results of research).

The Ethical and the Inward

The neglect of *Unscientific Postscript* as a coherent, self-sufficient unit of thinking has negatively affected the interpretation of the term *the ethical* in that work. Researchers have linked this term with specific moral doctrines—for example, those of Assessor Wilhelm in *Eitber-Or*—or with topics that are centrally important in other writings by Kierkegaard but not in the thinking of Johannes Climacus, the alleged author of *Unscientific Postscript*. In that work, *the ethical* is mainly another term for "the genuine," "the inward," and there is no propagation whatsoever of any definite morality, for example, that of duty.

Applied to educational philosophy this means the limitation of moralizing to stressing the duty of the person to choose in all seriousness, and to

follow a decision faithfully, working out all the consequences of his or her choice. The educator can only help the individual with information relevant to the preparation of the choice and the derivation of consequences. Any indoctrination or direct influence, especially as regards norm systems and theological, moral or political propositions, is poison; either it destroys or undermines the growing individual's ability to consolidate a personality, or it supports negativism: the uncritical acceptance of views in opposition to those of authoritarian teachers.

The Illusion of Greatness and the Unimportance of Results

Unscientific Postscript contains a rich variety of maxims stressing that an individual should not concern himself or herself with success, with the external results of choices, efforts, or acts, because they are only indirect at the moment of choice. The only concern is that of being ethical—reaching a high level of inwardness—being in truth. It is clear that to obtain a high score here does not require intellectual ability, social position, or smartness. For the educational philosophy of higher educational institutions, the consequence is to minimize the stress on the external success of the pupils, on competence measured by objective tenability of views and effectiveness in handling “problems.” There are, of course, kinds of training (for example, that of a future surgeon) in which external criteria are all-important, but no institute of learning can, or should, limit itself to such training. In all training, including that of mathematicians, the stress on success can safely be minimized in relation to the importance of the personal relations. For example, rather than “the mathematical,” we can emphasize mathematical contemplation and fantasy in the value of individual mathematical exploration. We have our machines to store results, and to carry out tasks with the sole view of obtaining results.

With the increasing centralization and trend toward uniformity of world culture, and with the accompanying increase in the comparability of results, the attainments and success of the average individual are less and less conspicuous. Young boys or girls are confronted with people who have achieved a level that it is utterly improbable that they themselves can reach. The constantly recurring implicit and sometimes even explicit rating of individual attainments based on external criteria makes it more diffi-

cult than ever for the average youngster to feel important, to feel what Kierkegaard stresses: that he or she is something unique, worthy of development and care. Insofar as education favors inwardness, the rich and intensive inner life, exposure to superior scholastic talent does not endanger it.

Indirect Communication

Nothing essential can be communicated from one individual to another, according to *Concluding Unscientific Postscript*. Insofar as the maxims on inwardness are essential to the welfare of the individual, they cannot be communicated directly. Ordinary, informatory language is direct; it does not elicit or free the inner forces. Therefore, the teaching of Johannes Climacus, if he does teach, cannot be made part of any curriculum. The philosophy of inwardness, if there is any, cannot itself be made the subject of any textbook or any educational indoctrination. The spirit of that philosophy can only manifest itself in the personal relation between teacher and student.

This is not the place to map out specific applications of a philosophy of education based in part on the above interpretation of the maxims of *Unscientific Postscript*. There is, of course, scope for various interpretations of those maxims, and application cannot be immediate but must carefully take account of how each contemporary educational institution is operating.

Of the various objections that might be made by leaders of such institutions, there is at least one that deserves to be mentioned here: it is said that the institutions must adapt the young to the present complex, technological society. In this society it is the external, the smoothly functioning, and the successful that count, not richness, variety, and intensity of inner life.

The answer to this must be that such a smooth society turns things upside down. Such social smoothness is of lower priority than community, and personal togetherness with fellow beings. For in being together, smoothness and external success do not count, and there are no technicalities to adapt to. Further, even the norms of being together have a lower priority than those of the inner life of each individual; that inwardness is the ultimate reference for any norm whatsoever. Thus, the higher educational institutions must make it easier for the young to remain unadapted, or imperfectly adapted. Otherwise, they contribute to the life of the big, impersonal, affluent society, with its external richness and inner poverty.

Notes

Chapter 2: Logical Equivalence, Intentional Isomorphism, and Synonymy as Studied by Questionnaires

1. In *Interpretation and Preciseness* (SWAN I) the terminology is sometimes misleading, suggesting as it does that Q₅B-synonymy and, in general, concepts of questionnaire synonymy are offered as candidates for the title “adequate definition of synonymy.”
2. The term *synonymy* is not taken here in any technical sense; it corresponds to the occurrences of “learning” or “intelligence” in the titles of articles in which certain technical concepts of learning or intelligence are introduced and made use of.
3. See pp. 61 ff., and particularly D₁₄–B₂ on p. 70. Strictly speaking, I do not know for certain what Carnap would wish to mean by *L*-equivalent if used in reference to ordinary language. The following rests on one interpretation among many possible ones.
4. A questionnaire question is here said to be misinterpreted if the interpretation differs from that intended by its framer.
5. See Naess 1954a.
6. In school we learn that the correct vernacular is based on explicit rules (usually having some exceptions), but in the light of linguistics such a view is not tenable—without heavy modifications.
7. Q₅A- rather than Q₅B-synonymy is used in this hypothesis because the respondents seldom interpret the question sentence of Q₅1 as its framer does.

Chapter 3: A Study of *Or*

1. The study of how the child’s logical concepts arise has been approached with nonverbal techniques by J. Piaget and by B. Inhelder. See Piaget 1953.
2. The percentages here and below are percentages of the total number of *classifiable* answers. The percentage of unclassifiables was high for some of the groups.

Chapter 4: Typology of Questionnaires Adapted to the Study of Expressions with Closely Related Meanings

1. See Naess 1958: 476 (in this volume).
2. The objection that Qs-family-1-synonymy is not real synonymy is of the same nature as the objection that intelligence as measured by this or that test is not real intelligence. See Naess 1957.
3. If questionnaires have been used in a study the results of which have been published, a reference is made to the publication, here and below.
4. See species 1 of genus 1, family 1. No definite event of interpretation is presumed analyzed. Under strange, imagined conditions, the text may acquire other meanings, and these may be conceived by the subject. Q₅₅-synonymy is present if *T* and *U* make similar changes in meaning with similar changes of conditions.
5. See especially note 7 in Carnap's "Meaning and synonymy in natural languages" (1956).
6. The choice of hypotheses leads to the main problems of meaning analysis of occurrences of terms in natural languages (see Naess 1954b).

Chapter 5: The Empirical Semantics of Key Terms, Phrases, and Sentences: Empirical Semantics Applied to Nonprofessional Language

1. Referred to (briefly) on pp. 383–84 in *Erkenntnis* 7.
2. In using this example, I do not take up the question of how "strong" the equivalences are. Some are certainly too weak to serve as a basis for substitutability.

Chapter 6: A Necessary Component of Logic: Empirical Argumentation Analysis

1. As an example of the neglect of empirical components in logic, let me recount an amusing incident that occurred at the Congress for Unified Science convened by the logical empiricists at the Sorbonne in the 1930s. As a central feature of that congress, the organizers had chosen the presentation of Alfred Tarski's theory of truth. This theory has an empirical component: the "adequacy" of definitions in relation to common usage. Although I had a large amount of material on the subject, only a small fraction of it could be said directly to confirm or corroborate the empirical pretensions of Tarski's paper. The material was declared largely irrelevant, however, because intuitive understanding was considered sufficient.

**Chapter 7: “You Assert This?”:
An Empirical Study of Weight Expressions**

1. Measuring the length of text by the number of words is less adequate, because the average word in, for example, German texts is longer than in English. As a consequence, one would overestimate the frequency of weight expressions in German if the unit of text were taken to be one word.
2. The choice of texts was to some extent based on what was available in a small library in my hut at Tvergastein.
3. For a discussion of knowledge as *Verhaltensweise*, see Naess 1936.
4. On confrontation with the “apodictic” certain, see Naess 1954c: 53–63.
5. The option of possibilism is favored in my *Pluralist and Possibilist Aspect of the Scientific Enterprise* (1972 [SWAN IV]).

Chapter 8: Husserl on the Apodictic Evidence of Ideal Laws

1. Husserl 1913: 1:51. All quotations are from the 2d ed. (1913). (“The essential theoretical foundations of Logic lie in psychology. . . . Logic is related to psychology just as any branch of chemical technology is related to chemistry, as land-surveying is to geometry, etc.” Findlay ed. 1:90.)
2. Husserl 1913: 1:57. (“Theoretically regarded, Logic therefore is related to psychology as a part to a whole. Its main aim is, in particular, to set up propositions of the form: Our intellectual activities must, either generally, or in specifically characterized circumstances, have such and such a form, such and such an arrangement, such and such combinations and no others, if the resultant judgments are to have the character of evidence, are to achieve knowledge in the pointed sense of the word.” Findlay ed. 1:94–95.)
3. Husserl 1913: 1:68. (“The psychologistic logicians ignore the fundamental, essential, never-to-be-bridged gulf between ideal and real laws, between normative and causal regulation, between logical and real necessity, between logical and real grounds.” Findlay ed. 1:104.)
4. Husserl 1913: 1:13. (“an immediate intimation of truth itself,” and “the luminous certainty that what we have acknowledged *is*, that what we have rejected *is not*.” Findlay ed. 1:60–61.)
5. Husserl 1913: 1:229. (“If now we perform an act of cognition, or, as I prefer to express it, live in one, we are ‘concerned with the object’ that it, in its cognitive fashion, means and postulates. If this act is one of knowing in the strictest sense, i.e., if our judgment is inwardly evident, then its object is *given* in primal fashion [*originär*]. The state of affairs comes before us, not

merely putatively, but as actually before our eyes, and in it the object itself, *as* the object that it is, i.e., just as it is intended in this act of knowing and not otherwise, as bearer of such and such properties, as the term of such relations, etc." Findlay ed. 1:226.)

6. Husserl 1913: 1:73. ("one of countless theoretical possibilities within a certain factually delimited sphere" . . . "the single, sole truth, which excludes all other possibilities." Findlay ed. 1:107.)

Chapter 9: Can Knowledge Be Reached?

1. Another restriction is this: I do not speak about "knowledge" that this is a table, that it is not raining on the table, and so on. With certain kinds of everyday utterances, we scarcely talk about evidence, collecting more evidence, etc. I am talking about utterances in relation to which it is pertinent to ask, What about the evidence?
2. This last maxim does not, of course, hold if one takes "*p* is known" to be implied by "our evidence that *p* is up to the relevant standards." Then, however, one must also face the possibility of having to accept statements such as "Yesterday Mr. *A* knew that there are birds on Mars whereas Mr. *B* knew that there are no birds on Mars."

Chapter 10: Pyrrhonism Revisited

1. I follow, in the main, the terminology of Sextus Empiricus and his *Outlines of Pyrrhonism*. This quotation, from the opening of the work, is translated rather freely. *Tois zetousi* is translated as "investigators" rather than as "searchers" or "seekers" in order to make it more plausible that a person can be an *all-around* "zetetic." He is a permanent searcher relative to all *systematic* investigations, not relative to all everyday searchings. He does not find his socks less often than others (but perhaps they never were his).
2. See *Outlines of Pyrrhonism*, bk. 1, chap. 29.
3. The exclusion of the admitted possibility of error in knowledge claims goes back to Plato and Aristotle. See my *Scepticism* (1968: 77n [SWAN II]).
4. For affirmation of truth, Sextus mainly uses the term *apophbasis*; for utterances such as exclamations, he uses *phoné* (sound). It is a noncommittal word that largely leaves open the *kind* of meaning, whether propositional or performatory.
5. See *Outlines of Pyrrhonism*, bk. 1, chap. 23, and Naess 1968: 10 (SWAN II). The Sceptic is said to report things "as a chronicler," to report what strikes him at

the moment without reflecting on truth or falsity. This characterization is misleading today because a chronicler *is* generally supposed to tell what is true. The Greek expression is *historikos apangellomen*, which may be interpreted in the direction of uttering something as indicative of one's mind, giving vent to a feeling or attitude or unreflective belief.

6. The Sceptic deliberately "talks loosely," according to Sextus, because otherwise the Dogmatist misunderstands his pretensions. The Sceptic does not pretend to have a definite conceptual framework within which he conceives his own Scepticism. See Naess 1968: 10 (SWAN II).
7. In defending Sextus's way (*agogé*-way, not doctrine), it is important to use a distinction such as that between an idea or notion and a (fairly precise) concept. The arguments used by Sextus against holding evident or trivial sentences such as "There are men" rely heavily on requests for definitions of *man* or other crucial terms in the proposed "truths." He may be said to ask for a conceptualization of "There are men" such that it is made into a theoretical proposition constituted (*konstituiert*) within a definite conceptual frame. Sextus tends not to hold back positive reaction to what "seems so," what "seems evident," but starts reflecting when utterances are taken to express true or false propositions.
8. A detailed discussion of incorrigibility may be found in Naess 1968: 136–51 (SWAN II).
9. In his first publications, Tarski proclaims that his conceptual construction is adequate in relation to what "true" ordinarily means, that it is "*sachlich richtig*." However, no empirical investigation had been made. The data I gathered in the 1930s confirmed his hypotheses in only about 70 percent of the cases, and then only when one adopts several nonintuitive auxiliary hypotheses.
10. For some detailed arguments, see my "Freedom, emotion, and self-subsistence" (1969a).
11. See, e.g., *Outlines of Pyrrhonism*, bk. 1, chaps. 7 and 10.

Chapter 11: Trust and Confidence in the Absence of Strict Knowledge and Truth: An Answer to Nicholas Rescher's Critical Reappraisal of Scepticism

1. See my "Common sense and truth" (1938a: 39–58 [in this volume]) and the many interviews in my *Truth as Conceived by Those Who Are Not Professional Philosophers* (1938b).

Chapter 12: How Can the Empirical Movement Be Promoted Today? A Discussion of the Empiricism of Otto Neurath and Rudolf Carnap

1. See writings by C. S. Peirce and W. James and their discussions with the “intellectualists” in the *Journal of Philosophy, Psychology and Scientific Method*, vols. 4 ff.
2. Older formulations of physicalism may be found in Neurath 1931 and in papers by Carnap and Neurath in *Erkenntnis* 2: 397, 441 and *Erkenntnis* 3: 136, 185 ff. See *The Monist* 41:620. Newer formulations may be found in the publications by Carnap mentioned in the text, as well as in Neurath 1937a. See also Neurath 1935, 1937c.
3. See Naess 1936: secs. 37 ff. (n. 13).
4. See Carnap 1932a, 1934, 1935a; Hempel 1935, 1936.
5. Hull 1938; “Preliminary draft of theorem sequence covering adaptive behavior” (MS). See also the research programs (not “doctrines”): “Memorandum presenting rough preliminary statements of problem groupings involved in a coordinated study of motivation” (37c); “Notes on some tentative research projects for the investigation of motivation based primarily on hunger” (37b).
6. See also Frank 1938.
7. One can find many a striking remark on antiempirical tendencies in psychology in Neurath 1933.
8. See the publications mentioned above by Neurath and Carnap since 1935, but also: Neurath 1936a; Kämpfert 1937. (The foundation of science was the program of the “Encyclopedia Committee of the Organisation for the Unity of Science.”)
9. Because this term was often misunderstood, Bleuler later gave it up. Nowadays he speaks of “dereistic thought.” In his textbook on psychiatry, Bleuler (1923) writes:

When we give our imagination free play, in mythology, in our dreams, in many pathological states, our thought will not and cannot trouble itself with reality; it follows goals set by instincts and passions. It is characteristic of this “dereistic thought,” “the logic of feeling” (Stransky), that it disregards contradictions with reality—Mythology lets the Easter hare lay eggs because hares and eggs happen to have in common that they are sacred fertility symbols of the Ostara. A paranoid person finds a fibre of flax (*Lein*) in his soup; this proves his relations to Miss Feuerlein. The reality that does not fit in with such thinking is not merely ignored but actively split off.

The concept of “reality” as used here by Bleuler seems to be translatable by “reality of everyday life and of the sciences”; so it is not meant as a philo-

sophical reality concept. When I use the term *autistic* below, I have Bleuler's examples in mind, particularly those in his book on medicine, and not his definitions, which on account of his use of terms like *reality* seem rather too unclear to me to be applied within the area of discussion of the present paper.

10. [Editors' note: Cf. the Dutch philosopher-logician E. W. Beth's war against the so-called philosophical disciplines—philosophical logic (for the logic of the Interregnum), Naturphilosophie, etc.—that in this opinion were continued and called by that name in order to prevent unexpected scientific results from attaining cultural and philosophical influence.]
11. [Editors' note: The German *eine Präzisierung*, Norwegian *en presisering*, is of the greatest importance in this and other publications by Naess. The fact that English does not have a direct translation of this noun, nor of the verb *å presisere* (*en formulering*), German *präzisieren*, makes it hard to translate texts in which one of these words occurs. I (E. M. B.) have usually translated the sentences in which they occur into ordinary English. Naess's translators often make use of two neologisms in English: (1) to precizate an utterance of a formulation, which in Naess's writings means exactly to make it more precise by replacing it with an utterance of another formulation that eliminates some reasonable interpretations without adding new ones; and (2) a precization (of an utterance of a formulation), which means the outcome of a precizating operation, as well as the operation itself.]
 Pier A. Smit has pointed out to us that C. S. Peirce had already suggested the introduction of a new word in English as a translation of *presisering/Präzisierung*. Naess was not aware of that: "we only knew one paper of Peirce's here at that time; his *Collected Works* came later" (Naess, in letter to E. M. B.).
12. [Editors' note: Naess did this himself, viz., in his empirical studies of the understanding, by the man in the street, of "or," "true," etc.]
13. [Editors' note: Naess's definition of *is a precization of*, or *is more precise than*, in terms of a reduction of the class of "reasonable interpretations," is found in his *Communication and Argument* (1966) and in many other publications.]
14. In this section, I have attempted to summarize the ideas that inspired me to write the treatise *Wie fördert man heute die empirische Bewegung?* insofar as I want to defend them today.
15. In the history of philosophy and science one finds examples of thinkers who are hardly ever characterized as empiricists but who did further the empirical movement. It is sufficient to mention Plato's contribution to geometry and also that of Eudoxus. Moreover, there are examples of thinkers usually classified as empiricists who turned down contemporary research, or who ascribed a definitive character to their own results. Here Francis Bacon and Auguste Comte may serve as examples. It would therefore not be correct to identify all

contributions of so-called empiricists, and only those, with the empirical movement.

Chapter 14: Logical Empiricism and the Uniqueness of the Schlick Seminar: A Personal Experience with Consequences

1. I have been asked whether the influence of logical empiricists on my thinking limits itself to their wonderfully friendly—almost Gandhian—philosophy and technique of communication. Of course not. I am also indebted to them for their use of symbols. Without symbols I would have found the conceptual structure of Spinoza’s *Ethics* much too complicated to survey. There are about 300 important extensional equivalences between the terms he uses. That is, he in part answers (as transformation rules) or declares (as “hypotheses” about the actual use of terms) a manifold of relations that should not be neglected in any interpretation of his wonderful text. It is pathetic to see how people shy away from reading my *Conceptual Structure* . . . when their eyes fall on the symbolic version of Spinoza’s theorems. Incidentally, Joel I. Friedman has now studied how the proofs of the first part of the *Ethics* can be made acceptable from the point of view of modern formal logic. The result is that the addition of only 164 premises will do the job. The majority are utterly trivial—Spinoza would not have cared to mention them.
2. Today it is difficult to understand why Schächter’s mildly critical way of assessing material implication was met with indignation. He introduced a sign “symbol” to symbolize an if-then relation closer to that of everyday language. The sign “-” indicates that nothing is said in these cases.

p, q	$p \rightarrow \bar{q}$	$p \rightarrow q$	$p \rightarrow \bar{q}$	$\bar{p} \rightarrow \bar{q}$
WW	W	F	-	-
WF	F	W	-	-
FW	-	-	W	F
FF	-	-	F	W

It was found intolerable that Schächter (p. 176 in his dissertation) flatly denied that logic consists of tautologies: its rules are obviously not tautologies, nor are its grammatical *Konstatierungen*—I deplore that he did not explain why material implication was extensively used, seemingly with great success.

3. Dissatisfaction with the treatment of empirical components of philosophical problems within the analytical tradition made me work many years on experimental and other procedures to arrive at scientifically testable conclusions on the use of words, in scientific and everyday language. In the preface to *Interpretation and Preciseness* (1953 [SWAN I]), my last effort to make a new unpretentious, slight *Wende der Philosophie*, I state my aims in formulations like the following:

Very roughly, one may distinguish a deductive, an intuitionistic, and an empirical component in the writing of analytical philosophers. Even in those cases where deductions and intuitions can help us considerably, consistent neglect of the empirical component will bring research toward stagnation. If empirical studies are neglected, we shall see much intelligent debate along intuitionistic lines, but less of that process which many of us find so inspiring in the history of philosophy and science: the development of new branches of reliable knowledge as a result of combined philosophical and scientific efforts.

My efforts to establish a wide group of “scientifically inclined” philosophers who in close cooperation would pursue the empirical components of the problems facing logical empiricists largely failed—for reasons that were not too difficult to unravel. As regards professional studies of language, Noam Chomsky told me frankly in about 1955 that their interest in the years to come would go in a very different direction: that of deep grammar, transformational grammar, generative grammar, and so on. He was perfectly right. Even though studies of the use of terms like *democracy*, *ideology*, and *objectivity* increased in importance before, during, and after World War II, and especially during the Cold War, performing detailed investigations of the sort I had in mind was not inspiring. In the politically relevant field, Chomsky chose a more fruitful, direct way of cooperation than mine! However, some logicians and philosophers have persevered; see, for example, *From an Empirical Point of View*, edited by E. M. Barth, J. van Dormael, and F. Vandamme.

Chapter 15: The Spirit of the Vienna Circle Devoted to Questions of *Lebens-* and *Weltauffassung*

1. [*Editors' note:* See “Logical Empiricism and the Uniqueness of the Schlick Seminar: A Personal Experience with Consequences,” this volume.]
2. For more about this, see my *Scepticism* (1968, 1969b [SWAN II]).
3. What is said in this article about total views and Spinozistic views is elaborated in various publications. See, e.g., Naess 1975 (SWAN VI), 1989.

Chapter 16: Do We Know That Basic Norms Cannot Be True or False?

1. Professor Alf Ross emphatically disapproves of my suggestion in a previously published version of this article that value objectivism should be less icily considered than has been the case in recent Scandinavian philosophy of value. He refers to his own counterarguments in “On the logical nature of propositions of value” (1945). I have in what follows tried to show why his counterar-

guments are not convincing. Magister E. Stroheim has, by his unpublished manuscript, influenced my conclusions (toward a priorism).

2. See Ofstad (1951: 55 ff.) for a summary of Ross's argument.
3. Empirical tests of various kinds have shown that this way of speaking is rather common, but not, or at least not always, associated with an explicit or implicit belief in a normative or ideal "reality," a Platonic heaven.
4. "Nun gibt diese ideale Forderungen, die weder in einer objektiven Realität, noch in unserm Subjekt ihre Heimat hat, ebendamit ein Problem auf, dass man wahrscheinlich nur durch das Axiom lösen kann, dass diese als Anspruch des Daseins an uns auftretende Ordnung eine selbständige, nicht auf Bekannteres zu reduzierende, völlig autochtone Kategorie ist. . . . Es kann diese Entgegengesetztheit der Ursprünge zu haben scheinen, weil es tatsächlich von keinem dieser herkommt, sondern einen ebenso primären und eigenrechtlichen Ursprung hat, wie das subjektive Leben und die äussere oder die geschichtliche Realität" (Simmel 1950: 117).
5. A critique is attempted in my "Husserl on the apodictic evidence of ideal laws" (1954c [in this volume]).
6. See, for example, what Henry Sidgwick, the intuitionist, has to say: "when I speak of the cognition or judgment that 'X ought to be done'—in the stricter ethical sense of the term ought—as a 'dictate' or 'precept' of reason to the persons to whom it relates, I imply that in rational beings as such this cognition gives an impulse or motive to action: though in human beings, of course, this is only one motive among others which are liable to conflict with it, and is not always—perhaps not usually—a predominant motive" (Sidgwick 1874: 34). "Unser Bewusstsein empfindet Forderungen an sich gerichtet, die es durch den Willen realisieren kann" (Simmel 1950: 114). Our obligation can be realized or our wish to do our duty only if the prescription furnishes a sufficiently strong motive.
7. The narrowness of this conception is well argued by Marc-Wogau in his "Axel Hägerströms verklighetsteori" (1940). The author thinks that scepticism about the existence of nonmaterial worlds sometimes owes to lack of *empirical* reasons. This is in line with our own thinking.
8. One main source of Ross's argument for value nihilism is his requirement that truths should be testable or confirmable in a rather definite way, which he describes in detail. If this requirement is accepted as a basic postulate, the position of value objectivists is indeed in mortal danger; but why should the objectivists accept it? It has the form of a postulate, and arguments presuming acceptance of the postulate are irrelevant to those who do not accept it. For criticism of the postulate, see Ofstad 1951.

Chapter 20: Gestalt Thinking and Buddhism

1. I follow here the gestalt terminology I used in “The world of concrete contents” (1985: 417–28 [in this volume]).
2. See, e.g., what Suzuki (1963: 140) calls the “ground-principles of the philosophy of Mahāyāna Buddhism, and, indeed, of all the schools of Buddhism”:
 1. All is momentary (*sarvam kṣanikam*).
 2. All is empty (*cunyam*).
 3. All is without self (*anatman*).
 4. All is such as it is (*tatbatvam*).
3. See, e.g., Johansson’s excellent *Pali Buddhist Texts* (1973: 35).
4. In the oblique cases, *sva* is used as a reflexive pronoun, synonymously with *ātman*.
5. Therefore, I think D. G. Merzel’s comment (1982: 1) might be misleading:

This teaching of the illusory nature of the ego is the core of Buddhism, and the *Diamond Sutra* is one of its most profound expressions. According to this sutra even the idea of liberating all beings must not be cherished because in reality there is not one to be saved. If we think, “I must help this person,” we are seeing things dualistically. We are operating out of the idea that there is a self, an “I,” that is doing the saving, and one that is going to be saved.

In this quotation, Merzel freely uses the word *we*: “if we think . . . we are seeing . . . we are operating. . . .” To me, this use of the personal pronoun is neither more nor less metaphysically relevant than the use of the word *I* in saying “I must help this person.”
6. The Buddhist scholar Robert Aitken, who encouraged me to publish this article, has in a personal letter made a couple of comments of importance:

About the word *satori*: this usually refers to an experience, but sometimes it refers to a state or condition. It implies something complete, and in view of the ongoing process of realization after realization, Zen masters generally don’t use it, preferring the word *kensho*, which means “seeing into (true) nature,” and by usage implies a glimpse. D. T. Suzuki used *satori* a lot, so this practice is copied by others. I wonder if references to *inochi* and *kuyo* should include their ordinary translations, “life” and “memorial service.”

I think that Professor Abe’s statement “Only through one’s self-realization can one attain nirvana,” refers to a personal grasp of the fact that all things are empty, and also of the fact that nirvana and samsara are the same. I don’t think that it reflects any concern by Dōgen that the process of generation and extinction be eliminated. The Mahāyāna view that all beings are enlightened from the beginningless beginning makes process a matter of realizing what has always been true.

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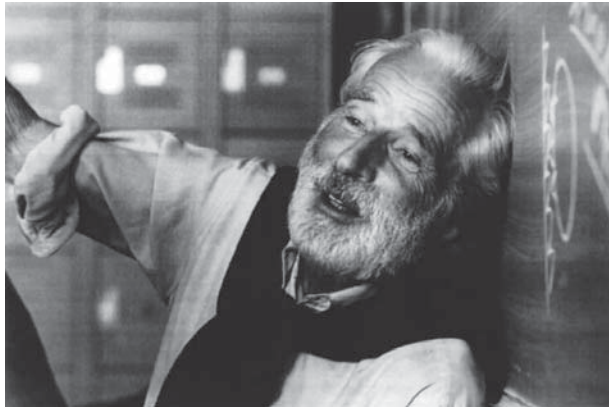
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VOLUME IX

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Author's Introduction to the Series

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

AUTHOR'S INTRODUCTION TO THE SERIES

"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 for improving the readability of the first editions of *Scepticism* (SWAN II),

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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

by Alan Drengson

The breadth of subject matter in these eighteen essays by Arne Naess is apparent from the first four section titles: (1) Democracy, Ideology, and Rationality, (2) Philosophy of Science, (3) The Philosophy of Peace and Gandhian Ethics and Communication, and (4) Spinoza. Then, in the final two essays in this volume, Naess explicitly relates the scholarly pursuits of his professional life to larger practical issues about which he cares deeply. The first piece in section 5 (originally published in 1983) gives us an overview of Naess's philosophical development throughout his career as a scholar, educator, and social activist, beginning with his first reading of Spinoza while still in high school. In the second piece ("Deep Ecology and Education," first published in 2000), he describes how he became a leading spokesman for the international deep ecology movement.

The close connection between Naess's scholarly work and his wide-ranging social and environmental concerns can be discerned throughout this volume. In section III, for example, Naess discusses the relevance of his work on Gandhi and nonviolent resistance to the peace, social justice, and ecology movements. (SWAN V, *Gandhi and Group Conflict*, is devoted entirely to Gandhi's philosophy of nonviolent activism.) Over his long life as an active scholar, philosopher, and mountaineer, Naess has applied his scholarly knowledge and research skills to furthering the main principles of the grassroots movements that aim for social justice, an end to war, and the nonviolent resolution of disputes. A nonviolent stance in our relations with the natural world is supported by the movement for deep ecological responsibility. For all these movements, nonviolence in language use is of upmost importance for positive communication. Naess has always been strongly motivated to work for positive understanding and better commu-

nication. He is not a pure theoretician but rather tries to solve practical problems in relationships through Gandhian communication and improved clarity. Both in his methods of teaching and in his philosophy of education his aim has been to empower people confidently to develop and articulate a personal philosophy of life based on their ultimate values and view of the world (see chapter 18). This, he believes, is part of being a well-integrated person with a sense for the world as a whole. In logic and argumentation courses, he aimed to empower students to reason well, to state their views clearly, and to help others clarify their own views. These methods and aims make congenial learning and research possible.

Much of Naess's energy has gone into promoting greater clarity and better understanding through improved communication and education. Issues of communication and interpretation came together in his first major work (SWAN I). Helping him to advance this work were the lessons Naess learned in the 1930s from participating in the discussions of the Vienna Circle (chapter 17). Circle members showed him that philosophical and research undertakings are not necessarily adversarial but can be based on mutual respect and cooperation. In much the way that researchers work cooperatively to unearth fossils (Naess worked on a dig in North America), philosophers can work together to understand better the exact nature of human disputes and conflicts resulting from failures in understanding that, in turn, result from failures in communication. Interpretation is always involved when we use language, written or spoken, and the various interpretations necessarily exhibit personal features, colored as they are by cultural differences and unique personal experiences.

From his earliest days as a professional researcher, Naess has held in high regard the abilities of ordinary people (chapters 17 and 18). In his studies of *truth* as defined by experts and by ordinary people, he found that the nonexperts managed to come up with all the views articulated by the experts—and some others as well. In talks with Noam Chomsky and other theoreticians of language and philosophy of language, Naess found that their interests were primarily focused on syntactics, generative grammar, and theories about language that were not directly applicable to reducing conflicts and avoiding misunderstanding. They were working out details of abstract theoretical knowledge. In contrast, he favors looking in depth at what people actually say and do with respect to important central concepts

such as *freedom and democracy*. In that way, we can improve understanding in a wider context.

Naess has sometimes described himself as a wandering seeker (zetetic) of truth, knowledge, and wisdom (see, for example, SWAN II and VIII). His approach to philosophy is Spinozan in that he looks for the applied, daily-life implications of his philosophy of life and his global vision. Reading Spinoza for the first time when he was seventeen, Naess was inspired to try to articulate his own worldview and philosophy of life. He appreciated the way Spinoza articulates his grand vision by means of geometric exposition aimed at leading the reader to the same unitive insights and intuitions that Spinoza himself had about the integrity of our whole experience (see, especially, chapters 12, 15, and 16, “Is Freedom Consistent with Spinoza’s Determinism?,” “Spinoza’s Finite God,” and “Einstein, Spinoza, and God”).

Spinoza’s discussions of emotions and freedom are central in Naess’s interpretation of the *Ethics*. Unlike most Spinoza scholars, Naess thinks these qualities not only lie at the core of Spinoza’s philosophy of life but are of great practical importance in the modern age. Spinoza teaches a way of life that is joyful. His teachings on feelings are close in spirit to some of the great philosophies of life from the East, such as the form of Buddhism that Naess discusses in this volume (chapter 13, “Through Spinoza to Mahāyāna Buddhism, or Through Mahāyāna Buddhism to Spinoza?”). Spinoza’s emphasis on active, positive emotions as a way to freedom also sheds light on the life-denying features of negative, passive feelings. For Naess, Spinoza is a philosopher who sees life whole and, moreover, is able to sketch his total view through carefully defined terms and axioms expressed in Medieval Latin (chapter 14, “An Application of Empirical Argumentation Analysis to Spinoza’s *Ethics*”). Naess’s appreciation for the complexities and depth of Spinoza’s texts leads him to the recognition that there cannot be a single definitive interpretation of those texts. Like so many philosophical (and other) texts, they are rich and deep in possibilities that even the author himself did not fully recognize. As Naess points out, texts do not usually have a guide that explains how they are to be read and interpreted—and even if they had such a guide, the guide would have to be interpreted.

A reading of all the papers in this volume allows one to pick up the main themes that run through Naess’s ways of writing, researching, and thinking. He regards our spontaneous, uninterpreted experiences of the

world as far richer than we can ever express in any language (chapters 17 and 18). When we learn our native languages, and then specialized ways of symbolizing our thoughts and feelings, we are able to produce texts that become artifacts with a narrative life of their own. They become part of a body of literature with criticism and commentaries. This is true on many levels and for many types of documents used in a variety of settings, from constitutions and treaties to manifestos and political propaganda. Even when people come from the same culture and speak the same language, there can be widespread disagreement about how to read such documents, just as there are with religious and philosophical writings. Within a single tradition differences exist, for example, between spoken language, literary or poetic writings, and scientific textbooks. Often, too, there are contexts and specialties devoted to interpretation of key documents: court decisions, legislation, and the like. When cultures having different languages and histories, plus different religions and worldviews, encounter each other, these interpretive differences can increase exponentially. Under such circumstances, difficulties in understanding can easily develop. People sometimes feel threatened by worldviews they see as competing with their own values, and they cannot make sense of what their perceived opponents are saying. The result can be open conflict, escalating violence, or even widespread war (see, for example, chapters 1–3, “The Function of Ideological Convictions,” “Analytical Survey of Agreements and Disagreements,” and “Ideology and Rationality.”).

During the Cold War enormous tension developed between the Eastern Soviet Bloc and the West. Politicians in the West asserted that the Soviet system was not a democracy as there was no freedom of press, expression, or religion within its sphere of control. Some key Soviet documents, however, seemed to favor freedom and democracy. Naess compared how certain key terms were used by Russian writers (see his discussion of Zaslavski’s texts in SWAN I) and how the same terms were used by authors in the West. Later, he took part in an ambitious study funded by UNESCO to find out exactly what different people—experts, policymakers, and others—thought about key concepts such as *freedom* and *democracy* (chapter 2). Eastern and Western experts and policymakers were polled by means of questionnaires and documents on which they were asked to comment.

Naess’s UNESCO research showed that no clear consensus about these

matters existed in either camp. Neither side, it turned out, exhibited very much internal agreement. This research was undertaken using a methodology that Naess had helped pioneer in earlier studies of scientists doing science and of what experts and nonexperts think about *truth* (SWAN VIII) and intrinsic values in Nature (SWAN X, chapter 18). The methods developed and used were part of his engagement in empirical semantics (see also SWAN I, VII, and VIII), a descriptive discipline that attempts to understand how language functions in everyday life, in various academic and other specialties, and cross-culturally. While other philosophers were assuming they knew what ordinary people meant by various words, Naess decided that we should observe and ask questions. When others speculated on how science is actually done, in their attempts to clarify what science is, Naess conducted empirical research by observing experimental psychologists working with rats. (Naess himself had also done experimental research with rats; see chapter 17.)

In using Naess's approach, one soon learns that the actual practice of science is considerably more diverse than would appear from reading textbooks about science. In texts about science, we are given to understand that there is consensus, that all scientists more or less think and do the same things. Naess shows that the idea of a specific scientific worldview, complete with all the *t*'s crossed and *i*'s dotted, does not follow either from historical studies or from observations of the current state of science in the West. Moreover, the historical studies of science in the differing traditions of East and West lead us to identify an even greater diversity of views regarding how the world is to be understood and related to, and how human beings should value and work with it.

Science as open inquiry is based on the integrity of individual researchers (chapter 5, "A Plea for Pluralism in Philosophy and Physics"). One could say that in this sense it is a democratic undertaking, since people and communities should be free to make their own observations of how things happen in their own places. In modern industrialized societies, however, science has become a professionalized enterprise, a place or cult for the expert and specialist (chapter 6, "The Case Against Science"). In addition, special interest groups and government policies strongly direct scientific undertakings in the industrialized world, funding or not funding research according to their own priorities. As we know from much experience, sci-

ence as an enterprise has not always worked to further freedom, nonviolence, and democracy (for more on this, see SWAN IV).

The modern approach to science, pursued after 1550 in the West, is unique in the emphasis it places on prediction and control and in its development of highly specialized disciplines that fragment our knowledge of the world. The world, Naess has always felt, is one. Reality is one, but it is multifaceted and there are endless ways to describe it. One of the important lessons learned from the study of global ecosystems is that human cultures are interacting parts of these systems and, as such, should not be thought of as outside them (chapters 17 and 18).

Beginning early in his life, Naess's approach to open inquiry has combined all his interests with a desire to articulate his total view using all forms of knowing and experiencing, all types of methods and experiments, always guided by a philosophy of nonviolence and respect for individuals. He has distilled the values at the core of his personal philosophy into a single fundamental norm, "Self-realization!" which he then expanded to "Self-realization for all beings!" (chapter 17). He became aware early in life that we have a sense for the wholeness and unity of the world that comes from our undivided spontaneous experience of it as we are fully in it, such as while wading in the sea or walking in a mountain meadow. For all of his adult life Naess has been an alpine mountaineer, a follower of Gandhi, and a wandering seeker who decided early on that it was his life's calling to be a philosopher in Spinoza's way.

Throughout the essays in this book, we see evidence of Naess's wide-ranging interests as well as his commitment to open inquiry and nonviolence. He strives to be inclusive and generous. In all his undertakings he tries to bring about better communication and understanding by using a variety of methods. He feels that it is a sign of maturity when we appreciate diversity on *every* level, from personal to cultural. As Spinoza said, the more we know about the world, the greater our appreciation for the way things are, and then we realize that our smallness is a way of being in tune with God, or the ultimate. Our freedom is found through deeper understanding and through emphasizing positive active feelings (chapter 12, "Is Freedom Consistent with Spinoza's Determinism?"). Deep understanding depends on nonviolence, even in attitude. When we sit quietly in a meadow or a tidal pool, the lives around us return to normal.

Another realization that came to Naess early in life was that he did not want to become a specialist. He wanted to understand how the world hangs together and what the most important values are for having a meaningful and joyful life. He found his joy in mountain climbing and in the search for interdisciplinary knowledge, communication, and understanding. These have distinguished his career. Through his empirical and logical studies he came to appreciate that there are no value-free inquiries. All knowledge pursuits are value-laden; even pure logic assumes certain values, such as consistency. Comprehensive knowledge leads to understanding, and each of us acts *as if* we had a total view, even if we cannot articulate it very well. The better we understand and can articulate our own total view, the more confidence we have and the better we can communicate with others about our thoughts, feelings, and values.

Naess has devoted considerable effort to clarifying and exploring normative systems and qualitative evaluations of experience and the world. In his youth he loved math, logic, and other quantitative subjects. As he grew older he realized that the Earth's material resources are limited and that we must put a cap on material consumption. In the domain of quality of life and deep experience, however, there are great possibilities for endless expansion. For example, there are countless ways to appreciate beauty in the world. Even if we only improved the quality of our immediate relationships at home, our life quality could rise enormously. There are so many ways to find joy in the smallest things in the world around us that science can be a wonderful undertaking at any age. Science and philosophy should not, in Naess's view, be the special province of adult experts; they should be open to everyone. We can develop and use all sorts of ways to learn more about the world and life, about values and quality of experience, provided we exercise our creative imaginations, are willing to apply ourselves, and are willing to act freely with an open mind. As a wandering seeker Naess searches for knowledge and truth. He states his ultimate values and assumptions about the world, but he never claims to have the one defining right view. He encourages others to state theirs and he finds joy in this diversity.

Even when the great pluralism of worldviews, cultures, and ways of doing science seem inconsistent with one another, conflict can be avoided. (These issues are raised in chapters 5, 7, and 8, "A Plea for Pluralism in Phi-

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losophy and Physics," "On the Structure and Function of Paradigms in Science," and "Why Not Science for Anarchists Too?") Just as we learn to live with inconsistencies in our personal lives, so we can come to appreciate the cultural, religious, and philosophical diversity on Earth as akin to the biological, ecological, and individual diversity found throughout the natural world. Naess shows by his example that appreciating this diversity can lead to a sense of unity on a global scale, since with maturity and wisdom we realize that diversity is life's way of creating energy. Acting in generous and beautiful ways by giving more to the Earth than we take (chapter 18), more to our community than we take, and more to future generations, we can help to build a world without war, with ecological sustainability and social justice, and yet with diverse cultures. (On the end to violent conflicts, see chapters 9 and 11, "Nonmilitary Defense" and "Consequences of an Absolute *No* to Nuclear War.")

One key to peace is a better understanding of the nature of languages as they are actually used. How do they shape the lives, feelings, and thoughts of people in different cultures around the world? This study, as exemplified by Naess, leads us away from dogmatism, from thinking our way is the only way. We realize that there are many wonderful possibilities for creating ever greater diversity with sustainable cultures of place. Unfortunately, there are forces working against this deep movement under the guise of a globalization that aims to control other nations as a first step toward turning them into modern Western consumer societies. Naess has worked to realize other possibilities, among them the combination of localization with international cooperation for global concerns (chapters 17 and 18). He welcomes thriving vernacular cultures that preserve the integrity of the natural world in their home places. He also stresses the importance of international cooperation with commitment to principles cutting across cultural boundaries, such as the platform principles of the deep ecology movement. He has shown a way for reason, democracy, and science to flourish in freedom and diversity.

Author's Preface

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 non-violent 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-

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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

DEMOCRACY, IDEOLOGY,
AND RATIONALITY

The Function of Ideological Convictions

What are the main influences on the development of national aggression? This and closely related questions are raised in thousands of speeches, articles, and books all over the world. The majority of authors write as if there were a solution, as if they knew the solution, and as if they believed the wording of their solution were fit for the communication of insight to other human beings.

Excessive Claims to Certainty and Finality in Writings on National Aggression

In some cases, the authors who write with certainty and finality do so without seriously believing that their solutions can in fact claim any certainty or finality; they word their statements as they do to conform to norms of eloquence and techniques of propaganda. In other cases, though, the preten-

The three articles in this section fit together as a seamless whole. They offer an overview of Naess's work on democracy and ideological conflicts, which began with his role as the scientific leader of the UNESCO Democracy Study. It was the first major application of his empirical semantics, after his creative Truth Studies (see SWAN VIII). The first article, which addresses the UNESCO project, originally appeared in *Tensions that Cause Wars: Common Statement and Individual Papers by a Group of Scientists Brought Together by UNESCO*, edited by H. Cantril (Urbana, IL: University of Illinois Press, 1950), 257–98. The second article gives an extended survey of responses by the experts consulted and offers Naess's important and controversial overview and summary of the agreements and disagreements among the participants. The third article carries Naess's work into a general discussion of the relationship between differing conceptions of rationality and ideology.

sions seem to be seriously meant and are so understood by those hearing or reading the solutions set forth. In these instances the "solutions" do not appear to be held in a tentative way but are set forth as nothing short of statements about reality as it *is*. The solutions—whether in terms of imperialism, struggle for existence, release of irrational impulses basic to human nature, hateful propaganda, lust for power, fanaticism, or religious or political faiths, or in terms of more complex factors—are set forth without qualifying phrases carefully describing them as more or less tentative but fruitful hypotheses worth testing.

To any man searching for reliable knowledge more than for inspiring faith, the certainty claimed for such solutions is excessively high. To profess belief in such degrees of certainty against the background of the grave shortcomings of basic research in these fields is incompatible with the discerning attitude required in any science of human relationships. This holds good even if we consider that the proponents may have felt a kind of moral or social obligation to combine a cool analysis of influences on national aggression with a plea for a certain ideology or political faith.

Moreover, the exaggerated certainty, preposterous expectation, and subsequent frustrations are not the worst features of the solutions from the standpoint of those seeking to avoid action based on misinformation. Still worse is the fact that the solutions are rarely free from gross slogans and catchwords.¹ In the search for reliable knowledge, clearly stated mistakes are generally more easily eliminated than foggy generalities lacking precise meaning, because the latter are not verifiable. That they are apt to stir the emotions and control the action of men is no disproof of their uselessness in the search for reliable knowledge. A few social scientists, for example, Bryce, have even hinted that the very lack of precise meaning is a prerequisite for mass control. That may not hold good for the future, however.

Education Should Stress the Hypothetical Character of Textbook "Knowledge"

If there is any important prediction that social scientists today can make with a fairly high degree of certainty, it is the following: in tackling the problems involved in an inquiry of the present kind, answers likely to

prove tenable and likely to embody fruitful working hypotheses will be highly conditional, complicated, and piecemeal compared with most answers so far given publicity.

We may safely make this prediction not merely as specialists in certain narrow fields of science but as men seeking knowledge rather than influence. If scientists could enlist a broad consensus for the tenability of such a prediction, the ground would be cleared for an appreciation of what research can do for human welfare at large. Expectations of simple solutions make it difficult to mobilize the energy and resolution necessary for people to work with and act upon complicated piecemeal hypotheses of admittedly limited certainty.

This principle is one of the few important things that may be stressed in a short survey such as this: we need to foster a critical attitude toward “general solutions” involving pretensions of finality. Such an attitude is a prerequisite of any program for the application of social science to the major problems of our time. To foster such an attitude should be a major goal of infant as well as adult education. The tender seeds of critical attitude cannot develop and give fruit as long as the sturdy weeds of unquestioned ideological convictions are, at the same time, permitted to grow undisturbed.

It is within our reach today to counteract the undesired consequences of the tendency to have either complete or no confidence in a statement. It can be done by reforms of elementary and higher education. Graduate students, and not just those in statistics and related fields, could be trained in the estimation of weights of hypotheses. Further, the level of popularization and mass communication can be improved by a shift of content from a mere description of hypotheses toward a description of hypotheses combined with critical weight indications. There is fairly accurate evidence that the weightings tend to be ignored or lost from memory. The result is disappointment because of misled expectations. Present-day textbooks, by and large, fail to satisfy these requirements and are thus a menace to the fostering of a critical attitude.²

Social Science More Effective in Reducing Pseudoknowledge Than in Building Up New Knowledge

I decided to begin this article with a warning against vague generalities and pretensions of certainty because any article dealing with a major aspect

of the question of this inquiry, and naturally also the present paper, will easily degenerate into just the kind of proclamation that I should like to see vanish from the earth. In a short survey such as this, there is no place for adequate argumentation and precise formulations. Thus, a paradoxical situation arises. If this article is read and its intention accepted, the reader might turn against it because it does not give what the general title indicates: a description of major influences on the development of national aggression. As long as we do not have a science of popularization and condensed description, only preliminary hints appealing more to readers' imagination than to their intelligence can be conveyed in an article like this. The numerous important but piecemeal findings of the social sciences cannot be dealt with adequately. Neither would these findings as yet in any way appreciably confirm the hypotheses that are formulated in the following pages. I think, however, that they are reasonably strengthened by everyday observations and may furnish fertile hypotheses for future research.

Concluding these introductory remarks, I venture to affirm that under prevailing societal conditions one of the factors that on the whole tends to bolster large-scale aggressiveness and to block the expansion of sympathy on the international level is the *excessive reliance on hypotheses about means-end relations of social and political importance*. Theological fanaticism and credulity of former ages have largely been displaced by social means-end credulity culminating in aggressive political ideologies. In this century the largest contribution of social science to peace might turn out to be more adequately described as the *liquidation of pseudoknowledge* than as the building up of new knowledge.^{3,4}

Scientific Information on Means-End Relations Is Unfavorable to the Development of Large-Scale Aggression

Let us consider the following hypothesis: the mass of present-day *tentatively* assertable working *hypotheses* on means-end relations and on the desirability of ends are on the whole less apt to motivate large-scale aggression than the mass of present-day doctrines making claims of unconditional acceptance.

Even if this hypothesis, which I think is tenable, is judged untenable by others, there is still room for belief that the social sciences may con-

tribute substantially to the understanding of controllable factors in national aggressiveness. However, I consider its tenability an important guarantee that scientific working hypotheses about means-end relations will not have the devastating effects sometimes attributed to the “relativism,” “cynicism,” and “positivism” of our era by men like Berdiaeff, Sorokin, and others. If the assumption is tenable, we have reason for optimism about the future services of social science; its beneficial influence may turn out to be largely independent of special social hypotheses. Even if they all prove more or less mistaken, a beneficial influence may result from the fostering of open-minded inquiry, of willingness to *modify* opinions, and of basic scepticism toward pretensions of the finality of conclusions in general.

The assertion that the prevalent excessive reliance on opinion, concerning the way in which desirable social conditions can be realized, tends toward national aggression and against international understanding needs detailed documentation. After surveying the very indirect relevance of existing research, however, we find that the best characterization of the situation is that detailed documentation is not possible today.

What we should like to establish in this paper is, not so much the hypothesis of an objective, absolute norm of justice that might be taken as an aggressive belief, but of beliefs (1) that some outgroup violates justice, (2) that justice can be restored by punishing or annihilating the outgroup, and (3) that the ingroup can or even has the duty to do this. Thus, we do not so much fear the existential formulation “There exists an objective justice” (in most plausible precisations of that formulation), as formulations of the kind “We have objective justice on our side in our fight against the others” and “Our ruthless fight against them can reestablish justice.”⁵ In short, it is the attempt to *apply* principles, not the belief in principles, that is dangerous. Our concern is with this means-end form of absolutism, not with *any* kind of absolutism. We are not concerned with statements such as “God is” but rather with “God is *with us*.” Clarity at this point is of importance to the interpretation of the main theses of this article.

There is a passage in Russell’s *Freedom and Organisation* (1934) that illustrates the above distinction: “Mazzini’s conscience told him that England ought to intervene on the Continent by force of arms to secure freedom for oppressed nations, Cobden’s conscience told him the exact opposite. Both were earnest and highly moral men. Two men who both accepted the prin-

ciple of utility could argue about their practical differences, since they had a common standard, but two men who both followed the 'law of God' and found that they differed could only accuse each other of wickedness and fight it out. Thus Mazzini's ethic, which sounds so much nobler than Bentham's happiness principle, becomes, in its application to practical affairs, nothing better than the rule of the big battalions."

Mazzini scarcely believed it to be a law of God that England ought to intervene on the continent by force of arms, but he might have believed that such an intervention would be in accordance with a law of God, that it might be an application to a concrete case subsumable under a more or less general law. Now, however, there is no difficulty of principle that prevents peaceful discussions on the *applicability* of a law to concrete cases, however holy that law may be.

If both Mazzini and Cobden were absolutely convinced of Bentham's happiness principle but made with complete confidence opposite application of it to the question of English intervention on the continent, such a situation might perhaps just as well lead to a "solution" by big battalions as would exactly opposite views based on moral intuitions and alleged laws of God. The basic issue would be their confidence in their own conclusions, not the kind of principle adhered to.

What Russell, in our view, might say in favor of the happiness principle is that *attempts at rational application* of that principle to concrete cases more probably lead to solutions held as tentative working hypotheses than do attempts at application of theological principles. Our thesis is not that national aggression would no longer take place if means-end hypotheses were properly weighted and action were based on the result. We only predict a decrease in trends toward such aggression. A more radical statement of the thesis is hinted at by Hitler when he says that *only* "fanatical belief" of some kind can make men find it justifiable to use "the most brutal weapons" for their aims.

Does a Critical Attitude Make for Indifference in the Face of Aggression?

Some might well agree to the assertion that tentative working hypotheses constitute an unfavorable basis for inducing men to join programs of large-

scale aggression, but might at the same time be prone to maintain that attitudes fostered by research are unfavorable to every large-scale effort and are therefore unfavorable to large-scale resistance to violence. A critical attitude fosters indifference, it is said. "Doubt weakens the will." The behavior of interval Social Democrats in Germany is often cited as evidence of how people highly educated in self-criticism and means-end opinions are unable to halt waves of aggressive opinion. To oppose effectively such waves and to motivate protracted and intense action in general, people need strong, steady motivation. The cool weighting of science undermines and makes impossible such behavior, it is maintained.*

Here we touch a basic point concerning the function of scientific information on the one hand and the function of contemporary ideologies on the other. We shall therefore try to word our point of view somewhat more carefully than usual in this article.

A distinction must be made between faith in ultimate ends and values and faith in ends that we accept because of the relation they are supposed to have to ultimate ends and values. Social science has by definition nothing to say directly for or against any value judgment that we deliberately pose as an ultimate premise to all or a certain part of our means-end thinking.⁶ *There is no inconsistency between a strong will to realize an ultimate end and extreme criticalness toward each particular means proposed as conducive to that end.*

If a man or a rat is hungry and uncertain about how to get food, this may induce him to energetic action in various directions. The man will normally form verbalized hypotheses that are tried out, one by one. Roughly speaking, the hungrier both are, the more energetically they will try out various means. To generate and maintain eager search, it is not necessary to be absolutely certain of the reliability of a particular means-end hypothesis—for example, one stating that a certain alley in a labyrinth leads to food.

The belief that only unconditional acceptance of hypotheses can moti-

*Against the use of the argument concerning interval Social Democrats to support this thesis it may, for example, be argued: There was among them uncertainty about fundamental aims rather than about means. There was even acceptance of ideological doctrines teaching that evaluation is "unscientific," that no value judgments can be derived as conclusions from premises expressing knowledge.

vate strong action is frequently mixed up with certain beliefs about the "crisis of our age." The extreme success of Western society in procuring means to greater production and to a higher material standard of living has turned attention away from ends and their hierarchical order, thus leaving many people without those steering mechanisms that only clarification of means-end relations and faith in ultimate ends can furnish. In saying that Western society has been successful in procuring means rather than ends, we wish to indicate that it has been particularly successful in procuring what has nearly universally been thought of as instrumentally, rather than ultimately, valuable. Without some basic conviction about which ends and values are lofty enough to be accepted as ultimate, the critical attitude toward means-end hypotheses will result in a lack of motives for strong and protracted action. This will hardly be denied by anyone. Then, however, the so-called crisis of scepticism and relativism is not necessarily caused by a critical attitude toward social means-end hypotheses but may owe to unawareness of norm hierarchies and to the consequent lack of steering mechanisms for social behavior.

Thus, the above argument may be answered by the assertion that wholehearted *belief* in ultimate values *in addition to critical and tentative acceptance* or rejection of means-end hypotheses can make up a motivational basis for intense and protracted action. Metaphorically, our argumentation can be reformulated thus: a cool head can never make up for a warm heart, but neither can a warm heart take over the functions of a cool head. Cool-headed manipulation of questions about *how* to realize basic values is necessary to successful action on their behalf.

There is a relation between the state of alarm and tension within a society and the limits of socially approved critical-mindedness. The limit is narrowed down in times of supposed crisis, and above all during wars. One of the reasons for these attempts at crippling man's capacity for intelligent deliberation seems to be the fear of decreases in the intensity of motivation. To continue the metaphor, the reason that tentative means-end thinking is tabooed in wartime is not so much the fear that it will weaken the will of the coolheaded as the danger that it will reduce the efforts of the muddle-headed and of those who are cool at heart; the capacity to act on uncertainties is not judged to be very widespread. The question of whether such a taboo is an effective means for military or other ends can only be answered by future research, not by speculation or propaganda.

Is Social Science Allied with “Nihilism” and “Relativism,” and Does It Thereby Contribute to the “Crisis of Our Age”?

It is the opinion of millions of people that further development of science will aggravate the present moral crisis and that its position in a future society will be less dominant than it is today. A future stage of humanity is believed soon to be reached, which will be characterized—as the European Middle Ages were—by firm, nearly universally held convictions on fundamental ideological principles as well as their applications. Empirical methods and even empirico-scientific criteria of truth would be disregarded or used within much narrower limits than today.

We mention this kind of interpretation of the “crisis of our age” because many contemporary social philosophers and some sociologists have developed similar doctrines. A conspicuous example of the latter is Pitirim A. Sorokin (1941: 231ff), who predicts that within the framework of the contemporary (sensate) culture, society, and man, no elimination, even no substantial weakening of group tensions—economic, racial, ethnic, occupational, and others—is possible. In a future framework, the weakening will be affected by forces other than social science.

When social science is made responsible for or considered typical of “decadent” Western thought, this cannot reasonably be justified by pointing to the absence of fundamental norms proclaimed as valid by assertions within social science. Justification of such norms would lie outside its scope, just as it lies outside the scope of artistic activity. To this most scientists agree, but whatever the basic evaluations may be—whether religious or nonreligious—there is need for research on means-end relations. If no misconceptions about the scope of the sciences are used as premises, it is difficult to see how one can arrive at the conclusion that social science is detrimental by its “relativism” or “nihilism.”

Ideology and Ideology Research

The above argumentation leads us into the difficult realm of ideology research, a convenient name here used for research on highly stable clusters of opinions, believed by their adherents to represent coherent doctrines capable of justifying group action. In cases of political action, we speak of political ideologies.

The word *ideology* has never designated any well-delimited class of phenomena. It has a slightly dyslogistic function, comparable with but probably less intensive than the word *propaganda*. As here introduced, it may roughly be said to comprise both ideologies and utopias in the terminology of Mannheim. As used here and by some other authors, the ideologies or, in a more general way, ideological doctrines consist of clusters of (1) ethical or social norms or principles and detailed codes of behavior; (2) politically relevant hypotheses, especially means-end hypotheses; and (3) verbal stereotypes with no fairly precise meaning, but influencing controversies within and between nations.

The ideological doctrines are normally set forth with emphasis on certainty and finality, and they claim to command respect in the way that religious faiths usually do. As examples we might take argumentation patterns in defense of capitalism, the liberalism of John Stuart Mill, Marxism, syndicalism, Leninism, fascism, anti-Semitism, and the Americanism of the Thomas committee.⁷

Ideologies play a decisive role in the mobilization of public opinion, a process of vast importance in preparations for modern war. We shall, therefore, take a brief look at the field of ideological research viewed as a part of future social science.

One of the objectives of social science is to describe and classify ideologies in terms of their doctrinal contents; another aim is to "explain" them in terms of their function in society: how and why they are built up and how and why they change in correlation with economic, social, and cultural factors. A classical work like Dunning's on the history of political theories serves the former aim to a large extent. Series of works of Hegelian and Marxian inspiration attempt to serve the latter. Among the notable works in the latter field may be mentioned Charles Beard's *Economic Interpretation of the Constitution of the United States*.

The vast majority of publications on ideologies are themselves partisan descriptions. They are mainly concerned with "goodness" or "badness" even if masquerading as pure descriptions. Nonpropagandistic study of ideology is an almost virgin field. It can be extensively cultivated only in societies in which social pressure against disconformity with the dominant ideology does not intimidate researchers and those responsible for their financing. This requirement excludes practically all contemporary societies.

The following are some keywords (not necessarily expressing doctrines) having important functions in ideological controversies and crusades. We mention them just to remind the reader of the vast infiltration into social life of faiths and doctrines defended as indisputable by some people. We have, for example, Americanism, anarchism, anti-Catholicism, Aryanism, Catholicism, Christian democracy, fascism, humanism, individualism, internationalism, liberalism, my duties as a good Afghan (Australian, Austrian, Belgian, Bolivian . . . Venezuelan), nationalism, Nazism, nonviolence, Nordic way of life, planned society, positivism, radicalism, relativism, scientific attitude, socialism, syndicalism, the rights of the individual, and the system of free enterprise.⁸

The slogans listed here stand for complexes of valuations and descriptions intricately and vaguely intermingled. For example, anti-Semitism may, as an ideology, be said partly to consist of *descriptions* of supposed characteristics of Jews as a more or less vaguely delimited class of persons. Further, it consists of doctrines stating *how* Jews may be eliminated from having the influence, etc., they are supposed to have. These descriptions are means-end hypotheses. Lastly, there are in anti-Semitism as an ideology more or less implicit norms: valuations justifying the elimination of Jewish influence and condemning the characteristics attributed to them as being of negative value. Sometimes these norms are such as are held by most people, whether anti-Semitic or not: for example, the norm "You should not cheat." In such cases, it is the strong belief that certain groups violate the norms, and the manner in which that belief is held—for example, moral condemnation of doubters and scorn for unbiased investigations—that makes us class the beliefs as ideological.

In other cases it is rather the value judgments that are characteristic of the ideology. Thus, in fascism fighting as such, apart from goals, is considered a value; and in anti-Semitism, we find the norm that race discrimination is socially and morally justified.

Given the prevalence of descriptions and means-end hypotheses, scientific research is highly relevant to the acceptance or rejection of ideologies. The likelihood that an ideology resting on uncritical assumptions and prejudices will prevail will diminish perceptibly if research and dissemination of its results are given free scope. This may be one of the reasons that the scientific attitude is so much distrusted by people strongly believing in the elements of their descriptive ideologies.

To What Extent Do Ideologies Function to Organize and Justify Aggression?

The expressed contents of an ideology are important for its aggressive potentialities. If an ideology glorifies national conquests and wars, its influence must of course be expected mainly to be toward national aggression. Even if an ideology does not openly advocate aggression, however, it may be apt to foster militant views likely to prevent nonviolent settlements of disputes. Certain features of Buddhist and Christian ideological patterns are expressly nonviolent and favor consistently nonaggressive modes of settling conflicts, but considered as wholes and viewed in the context of their function in the life of societies, they are among the dominating ideologies that stress the wickedness, injustice, and inferiority of outgroups and that use hatred to pave the way for violence.* Political and social ideologies, *as they operate today*, seem to be instruments of organizing hatred rather than benevolence. Religious ideologies that cherish nonviolence in theory may function to reinforce the trend toward violence at times when political ideologies have contributed to the creation of a sufficiently tense atmosphere. This function may be studied by content analysis of preachings before and after declarations of war. There are, on the other hand, many examples of the opposite function of religious ideologies: that of reconciling conflicting groups. Thus, the Norwegian State Church that in 1945 strongly supported the large-scale punishment of quislings has more recently worked for less aggressive treatment.⁹

Aggressive intentions release more energy for efforts of justification and rationalization of action than do benevolent ones. Thus, the technique of building up impressive superstructures of principles and means-end doctrines is to a large degree used for the rationalization of demands that seem most easily satisfied by fighting or oppressing other peoples. Benevolent intentions do not need elaborate ideological superstructures.

We have already tried to establish the point that the exaggerated certainty of means-end hypotheses, and the invocation of moral indignation in case their certainty is questioned, on the whole works toward violence, non-cooperation, disbelief in arbitration, a high-handed attitude toward new information, ignorance of the opposition's view, and self-righteousness.

*As forms of violence, we class any use of physical compulsion.

Closely related to the blinding influence of absolute convictions is the influence of thoroughgoing vagueness and ambiguity in preventing any testing and any formation of coherent doctrine. If opinions are couched in sufficiently vague and ambiguous slogans, the absence of meaning is not perceived, and they may be used rather independently of whatever happens. No testing is possible when nothing definite is described or predicted, so whatever is found to be the case the adherents may stick to their "faith." This means in practice the reinforcement of certain patterns of action that are habitually associated with slogans.

The Function of Ideologies in Cementing Ingroups and Making Outgroups Seem Remote and Wicked

How can thoroughgoing, vague, and excessive claims on certainty be upheld in an age said to distinguish itself by "scepticism" and "relativism"? How can such claims survive in the face of the rising prestige of tentative working hypotheses in natural science and the world of technical knowledge?

Much can be learned here from research on the effectiveness of commercial advertising, on propaganda and suggestibility. The applicability of many findings in these fields would not be contested—except when applied to the particular ideological patterns supported by the subjects asked.

For present purposes, some of the findings may be summarized as follows:

1. Mere repetition of a slogan tends under many conditions to make it more acceptable, that is, tends to reinforce patterns of action that those promoting the slogan wish the public to display.
2. Expression of firm, unshakable conviction on the part of the promoters of a cluster of opinions tends generally to enhance the effect—even if the public in reflective moods does not think the opinions plausible.
3. Sentences set forth by the promoters in a manner and in a context suggesting that they are fairly precise assertions, may be reacted upon as if they had those characteristics, even if closer analysis reveals a high degree of vagueness and ambiguity, making them unsuitable for rational discourse.

There are, however, features of commercial propaganda and advertising that limit the use one can make of them for understanding how ideologies are believed in and fought for. All manufacturers of, say, beer or radio sets have interests in common that are clearly seen and that in part explain the moral codes forbidding direct attacks on each other's products. There may be common interests among absolutist ideologists too—I think they are important and make “consumer research” of ideologies very desirable—but the common interests are inconsiderable and difficult to analyze. This makes it profitable for the ideologists to exploit an extremely potent realm of antagonisms not available to the commercial advertiser. It is commonly held by students of social and political movements and by historians that antipathies can be more easily evoked and are more powerful stimuli for action than are sympathies. However difficult it would be to confirm such contentions in a fairly precise way, what at least seems clear is a prevalence of “anti-” content in most ideologies. They are tools for fighting *against* something rather than *for* something.¹⁰ They create outlets for aggression rather than for cooperative behavior.

To understand better the function of ideological convictions it is useful to examine some hypotheses on the function of ideology in intergroup conflicts. The hypotheses are usually accepted as adequate as long as they are made to bear upon ideologies other than those toward which one is himself sympathetic. Hitler is one of the few who admitted some of the functions of ideologies to hold good even of his own tactics.

Suppose a large number of people find that they have some basic interest in common for which they are willing to fight, in the sense in which pressure groups and parties can be said to “fight.” If the group is to act in an organized, persistent, and determined way, it is important to consolidate, to *gleichschalt*, it, to make its members aware of a common and strongly demarcated frontier toward people of opposite interests. The narrowness of vision that seems to be a requisite for joint action by large, unevenly informed masses can be maintained only in this way. It may also be necessary to make some people join the action who do not have a strong interest in common with the others. Now ideologies and all sorts of isms and stereotyped catchphrases with strong and persistent emotional associations within the group are highly adapted to the purposes of consolidating and enlarging the ingroup and creating hostility toward the outgroup. The

members of the ingroup get a platform that they share and that they can cherish as a common basis for *justified* action. A cleverly distorted picture of the outgroup provides the maximum of justification for fighting it.

All differences between ingroup and outgroup must be strongly emphasized and therefore tend to be grossly exaggerated. For this purpose, tendencies to give fair statements of the views of opponents are thwarted and regarded as acts of treason or signs of weakness. Of special importance is the slanted description of morally relevant traits of the outgroup. Attempts at fairness tend to be scorned as indicating lack of loyalty, hairsplitting, or lack of devotion to the great cause. To make schisms appear simple and straightforward, it is important to slur over the structure of the outgroup, so that it looks like one compact homogeneous group. Public attention has lately been drawn to this trick because of the worldwide misuse of words like *democratic*, *communist*, and *fascist*.¹¹

Consolidating and fortifying the ingroup is likely to require a vague phrasing of the program or faith; in this way ingroup differences can be downplayed. There may be precision only at crucial points referring to action: for example, "Vote for Mr. X." This precision we usually find when particular measures are to be taken against outgroups.

The above description of some aspects of how ideologies are built up in the verbal warfare of groups would probably be subscribed to by most people in the abstract, but would be differently applied in concrete cases. It has become fairly clear that even allegedly nonpartisan institutions such as the Institute of Propaganda Analysis have tended to "discover" trends toward distortion only in some groups, and that that did not include groups represented more or less indirectly by the institute. Thus, the eagerness to accept any "debunking" views on ideology is considerable, but implicitly it is accepted only as describing adversaries. What is needed in this grave situation is a fairly exact science of controversy and ideology construction, so well based on relevant observation that conclusions cannot easily be dismissed as biased. As long as there is no such science, analysis of controversy and ideology will itself continue to be biased and partisan.

The analysis of ideologies as they function in consolidating ingroups and alienating outgroups cannot be undertaken by persons belonging to either the ingroup or the outgroup. Even when the analyst is independent of group loyalties, it is a complicated job to disentangle gross exaggerations

from fairly unbiased descriptions of differences of opinion. To accomplish this job, we need the tools that are being worked out under the name of "content analysis." It is adapted to the situation in which members of one group give distorted rendering of the opinions expressed by members of an outgroup, for example, a slanted newspaper report by group *A* of what a leader of group *B* said in a certain speech. So far, content analysis has been used to study relatively simple structures, but it may in time prove useful for ideology analysis.

The Tendency to Exaggerate the Philosophical Profundity of Ideological Conflicts

The doctrine of Marx and Engels on superstructures, Pareto's statements on derivations, and the application to ideologies of Freud's theory of rationalization of motives may all be made use of to reduce radically the claims of ideologists to fight for certain commonly accepted values believed to be expressed by words and phrases such as *justice, the well-being of the people, progress*, and so on.

These "reductivistic" theories of ideologies may themselves be analyzed as ideologies. They are not conclusions reached by large-scale, patient research. On the contrary, they have been shaped as tools of ingroup conflicts.

It is a formidable task for future social research to investigate the meaning and validity of theories asserting that a conflict is not "really" about what the participants claim it is about. Today very little can be said about the outcome of such research.

The following are some hypotheses that seem to merit further testing. If two groups have conflicting economic or other fairly easily observable interests, each group can, and usually does, try to enlist neutrals to support its fight against the other group by involving objectives that it can expect the neutrals to be willing to support. Thus, if the narrow interest of power, domination, or prestige of a certain group is by this same group considered compatible with certain broader interests such as the well-being of the citizens or the dissemination of a certain religion, the group will look for arguments enabling it to describe its fight as one for these broader objectives. There is, then, a constant search for objectives that can cloak the basic ones and thereby (1) relieve ingroup members of a sense of guilt and give them a

common platform that is socially acceptable and (2) induce people to join them who do not have the basic interest in common with the ingroup.

Thus, narrow partisan interests *may* be encapsulated into impressive superstructures so that the conflicts of interests seem unimportant compared with the ideological issues at stake.

Only future research can give us methods for analyzing ideologies from this point of view, however, and let us judge the extent, if any, to which a particular ideological conflict is built up as an enormous superstructure hiding some definite basic interest of a relatively small group, compared with the total number of people involved in the conflict. Large views of political philosophy, morals, national history, etc., may be made relevant to any conflict and even pretended to motivate the campaign independently of the narrow clash of interests. That clash tends to be looked upon by the ideologists as merely a consequence of some profound schism between out- and ingroup. On the international level we might be tempted to use the conflict between the United States and Spain in 1898 as an example. The United States invoked a deep ideological reason for rescuing Cubans from the unworthy Spaniards, and Spain invoked the ideology of national honor to justify its position. A clash of power interests, however, seems to have been at the root of the conflict.

However dominant economic and related interests *may* have been in particular, perhaps in nearly all national and international conflicts, it has so far not been possible to gather sufficient relevant material to confirm hypotheses about such dominance in a fairly reliable way. There is no science of group motivation in conflicts. On the commonsense level of rough vagueness, I think one can take a stand against any one-factor theory. Causes of war have been of very different kinds. This is the conclusion of such students of war as Quincy Wright. The conclusion seems particularly tenable if we think not just of motives and causes *precipitating* war, but of factors linked by chains of motives and causes for the outbreak of wars. When we stress that the development of a *science* of these things is urgently needed, it is not so much because of the shortcomings of reasoning on the commonsense level as it is because of the misuse of professional theorizing as part of group controversy. Pseudoscientific theories such as social Darwinism have, where properly exploited, misled public opinion and will probably continue to do so until discredited by large-scale research.

One of the chief contributions of ideology research would be to show how issues in contemporary ideological conflicts are, through biased argumentation and excessive and vague unhistorical generalizations, made to appear of great moral and philosophical consequence. On the whole I venture to say that if the conflicts were divested of the superstructure of hypocritical moralizing and philosophizing, they would not be found to involve conflicts between divergent philosophies, in the sense of conflicting ultimate values or ultimate principles of knowledge. It belongs to the tasks of today's philosophers to oppose the misuse of their terminology and methods to make narrow conflicts of interests look like philosophical conflicts.

If the issues are trivialized, influences toward violence and group hostility may be reduced.¹²

These opinions on the comparative triviality of contemporary ideological conflicts from a philosophical point of view are not, and cannot be today, based on extensive research. This also holds good, of course, for any negations of the opinions. The grave danger in the present situation is that a greater and greater part of mankind is being made susceptible to ideologists speaking with certainty about problems that have not yet been attacked by reliable methods.

Dangerous Aspects of Ideologies Fostered in Schools

What about the effects of the work of ideological clarification? Will not whatever positive value it may produce be blotted out by the devastating frustrations brought about by the propagation of its results? If education continues to give us strong implicit expectations of simplicity, certainty, and permanence in means-end relations, then our answer would be yes. If we by all means of biased communication and public opinion pressure go on trying to bolster such expectations—yes.

Any training adapted to the needs and insights of our times should emphasize the risks of error and bias and the prevalence of low levels of precision in historical and social descriptions. As a contrast, look at any history textbook at nearly any page and note how fluently and convincingly causal relations are set forth, explicitly or implicitly.

Between the world wars various international institutions took up

textbook revision as part of their program. In the future such revisions should eliminate not only nationalistic exaggerations but also any form of crude violation of the principles of critical attitude. There is scarcely any field in which international understanding can be more directly and intensively served than in the preparation of textbooks.¹³ The shortcomings of most contemporary texts are so obvious that sabotage of attempts at revision cannot be easily rationalized.

A Science of Communication and of Description of Value Systems—Its Use in the Clarification of Conflicts

In ideological research, the role of communication in stirring up emotion and in the *Gleichschaltung* of public opinion cannot be studied reliably without the help of scientific tools that neutralize to some extent the bias of the social scientist himself.

It is no longer necessary for social science to make the public aware of widespread misuse of one-sided, exaggerated, and malicious descriptions of social and international problems. The role of science will be the much more difficult task of opening the public's eyes to *ingroup* misuse, that is, to the misuse by persons having approximately the same opinion and main interests as oneself in a particular conflict. As regards the outgroup, the tendency to find that its members are biased and indulge in vicious, misleading representations is all too well established. The tendency is cultivated as one of the favorite tricks of contemporary ideological discussions.

To convince ourselves by rational means that some of our own presentations of outgroup views are misleading, and that some of the outgroup's presentations of our positions are not, we must summon not only great detachment but also large amounts of scientifically analyzed observational material. Only a beginning has been made to substitute propaganda against propaganda with a discerning tool of analysis suitable for scientific studies of communication, whether outgroup or ingroup.

The task of constructing fairly neutral descriptions of ideologies faces even greater obstacles, because many people, even if they belong to different and hostile groups, have in common a fear of "objectivity," a belief that the masses are unable to take a stand if issues are not oversimplified and

made emotionally stirring. In spite of the prevailing mistrust of "vague generalities," "evasive talk," "big words," and so on, there is not much eagerness among people of influence to give fairly objective versions of out-group opinions and actions.

Fundamental, Nearly Universal Norms and Attitudes Favorable to International Understanding

On the basis of psychological and sociological findings, we can very tentatively confirm 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. We may rely on reactions of sympathy so strong that large-scale aggression among people who are fairly satisfied as regards primary needs (food, water, shelter, sex, etc.) must be carefully organized and built up by devices such as indoctrination and isolation against contact with the antagonists. Only by such efforts can aggressive tendencies be mobilized that are sufficiently strong and widespread to counteract the reactions of sympathy.

The basic reactions of sympathy have their normative counterpart in humanitarian ethical principles believed to be valid *except* in cases in which aggression for some reason or other is conceived to be necessary. It is definitely not the other way around, viz., that aggressive principles are conceived as basic and the norms of benevolent action as exceptions to the rule.

If any particularly deep-lying influence toward international understanding should be stressed, I think it is the influence of sympathy as an immediate reaction and as a verbalized norm. Much work for international understanding can be conceived of as efforts toward removing obstacles to the free flow of sympathy reactions.

The existence of the basic reactions and norms of expansive sympathy makes it probable that all or most ideologies should show traces of them, however well concealed. In fact, this seems to be the case: though the description and propagation of political ideologies usually give predominant emphases to their aggressive and isolating elements, there are usually or always elements in them that are common to all and that recognize basic norms of benevolence.

Basic Agreements in Ideologies

A powerful but insufficiently advertised influence toward world cooperation is the far-reaching similarity of basic principles within the main political ideologies of today.¹⁴ Perhaps because of the interests in portraying outgroups as essentially different in principles of social and moral thinking, similarities have been largely ignored.

Communism, anarchism, syndicalism, and liberalism—in various forms and connotations—have in common as an ultimate, or at least as a fairly basic, aim the abolition of organized coercion implemented by brute force. Instead of the *Zwangstaat*, a society is conceived in which the members form groups voluntarily and settle disputes peacefully. In the famous wording of Engels, the state will wither away when certain grievances that now foster class antagonisms and imperialism are finally eliminated. In the various forms of anarchism, the organized and legalized use of brute force is stated to be an unconditional evil: it should be abolished if a peaceful society is to develop, with cooperation on a worldwide scale. According to various forms of liberalism, the system of free enterprise will result in such a high standard of living that everyone willing to work will have his needs satisfied, and therefore no incentives for organized violence will be found. The state should be nothing more than a polite force defending the individual's rights and liberties. No state activity would be needed to create economic security or for other economic or social purposes. Even in Nazism, such organized cruelties as genocide are conceived of as necessary evils inflicted for the purpose of a new society that does not provide for organized infliction of pain other than as part of sport activities.¹⁵

There are still groups who believe not only that some people will meet a future eternal hellfire but that they ought to endure it as a punishment. Even if it turned out that such predictions and such norms can only find acceptance because of sadistic impulses, there is no reason to believe that people other than sadists in a psychiatric sense would find conditions satisfactory in a utopia in which their enemies already had been roasted for a thousand years. Even in a Teutonic utopia like Valhalla, killing had a sportive character, as might be inferred from the resurrection each night of that day's victims. There is nothing to indicate that a person who should happen to prefer peaceful entertainment would have to take part in the

fighting. There is in the Valhalla ideology much room for violence against persons, but *on a noncoercive basis*. If wars only affected those who deliberately wanted and liked them, we should not have a “problem of wars.”

Thus, there are in contemporary and past ideologies few traces of anything like a depiction of national aggression as ultimately desirable. If organized coercion and violence are glorified, it is done largely in terms of their instrumental value for the perfection of races or societies.

The ultimate goals of political ideologies are generally very vaguely described. This is particularly the case as far as ultimate forms of society are concerned, and the vagueness and incompleteness seem to have a function similar to the corresponding character of descriptions of heaven in Christianity. Eulogistic and positive terms are used profusely; the conditions are described by words such as *joy, happiness, fulfillment, and perfection*. There is no exploitation, no coercion, no violence, no poverty, no selfish motives, no need for exploitation, and so on.

The steps to be taken to realize the utopian (the future, imagined states of) society are also left vague and incomplete *except insofar as first steps go*. These steps, which largely have a character of means rather than ends, are described in concrete terms, and the hypotheses of their success are—as mentioned in previous sections—given excessive credence. It is on the basis of such first steps that different ideologies are judged incompatible: ideological controversies are largely made up of mutual denunciations of immediate programs, as well as of mutual defamations of the sincerity of proclamations on further aims, including ultimate ones.

The proportionality between vagueness and level of aims in the means-end hierarchies may in part be explained by the prevalence of rather narrow and immediate aims among those who try to shape ideologies to suit their group interests.

However important for any long-range peace effort, the similarity and compatibility of ultimate goals as pictured in ideologies does not in itself give us important clues for the reduction of current major tensions. The insistence of the leaders of ideological groups that those in the opposing camps have radically different ultimate aims is a minor effect of those tensions rather than a cause. If research can be centered on the function of ideologies to mislead great numbers of people to work for the selfish interests of narrow groups, the vitality of an important source of organized aggres-

sion may be reduced. This would, first of all, imply detailed analysis of the means-end beliefs to clarify their highly hypothetical character, and second, imply a comparison of ends without distorting the contentions of out-groups.

Such research cannot, however, directly reduce the clashes of interests of the groups that use ideologies to mobilize peoples and institutions on their side. Neither can it reduce the aggressions rooted in unsatisfactory living conditions. The aim of reducing national aggression and increasing international understanding brings us into a larger sphere of problems than that tackled by ideological research as emphasized in this article. It brings us into economics, sociology, psychology, and history, where influential factors can be tentatively identified. The discussion of such factors lies outside the scope of this contribution. Some words will be said, however, about the interconnection among various factors.

Causal Weight of Factors Influencing National Aggression

Time and energy are easily wasted in discussions of the relative importance of various influences on national aggression. It should be borne in mind that what can be expected from social scientists is primarily hypotheses about certain interactions of factors under postulated conditions that are very difficult to compare with "actual conditions" in the world at a particular moment.¹⁶ Thus, under some conditions increases in mutual sympathy and understanding and in economic security and equality may be factors interacting with others so as to precipitate war. Churchill, among others, seems to mean that under the particular conditions in Europe between the two world wars, pacific temper, benevolence, and economic security influenced England and France, especially through leaders such as Neville Chamberlain, to adopt a policy by which a great war was precipitated in 1939 instead of no war breaking out at all or only a small one in 1935, 1936, or 1938.

The expressions *on the average* and *on the whole*, as used in this survey in statements about the way in which factor *x* influences national aggression, have no place in more exacting descriptions. We are in possession of, or we can get, immensely more information on factors operating under rather narrowly and precisely delimited sets of conditions. It is on the basis of ten-

tative hypotheses about the frequency of such sets of conditions and about their similarity to those prevailing at any moment that we should determine which factors should be deliberately strengthened by individual and group action.

In this connection, I should like to stress yet another methodological difficulty in the evaluation of answers to questions about influences on national aggression: Churchill's insistence on the causal role of pacifism and goodwill in the development of World War II—rather than, for example, militarism in Germany—probably owes to his belief that the policy of Great Britain might in 1935–1939 “easily” have been otherwise; if men sharing Churchill's convictions had been in power, there would have been no war. Thus, Churchill labels World War II “the unnecessary war.” In general, answers to questions about influences on national aggression are, however contradictory they may look, rather complementary or mutually independent, because the criteria for calling factors “causes” of or “influences” on national aggression include, in practice at least, criteria such as the following: (1) Human beings might have given events another course by eliminating or changing factor *x*. Thus, the likelihood that we could have changed certain features makes us picture those features as preeminently important. (2) If a factor is conspicuous and easily observed, it is counted as causally more important than if it is inconspicuous. The stage of industrial development, or more generally, the stage of the means of production, is considered extremely important in the history of civilization, partly because it is so easily observable. Any particular set of conditions precipitating a change in industrial development might in theory be considered just as important, but such conditions are often left unmentioned because they are more complex and more difficult to observe and describe. Such conditions would include the state of science, the organization of scientific and administrative work, the intelligence and emotional states of scientists, the stability of the economic and social status of the workers making the tools, and so on.

Against this “relativism” in our attitude to the hypotheses of degrees of influence, it might be objected that it would undermine the now fairly well established maxim “There is no biological basis of war.” That maxim, however, is only a vague popularization of well-established hypotheses of the following kind: “there are no biological factors that persistently influ-

ence national aggression, however economic, social, and psychological conditions are altered.”*^{17,18}

*In signing the *joint statement* I have subscribed to some very general—and necessarily rather vague—statements on the subjects of the present inquiry. Paragraphs E, F, H, and the last part of C deal with issues discussed in the preceding pages in terms of ideological conflicts. In the light of what I have said on the relativity of causal weighting, it would be misleading to speak of economic or psychological or any other particular class of factors as the “real” or “main” influences on national aggression. I should maintain, however, that an organized battle against certain fairly general features of ideologies, such as their claims on finality and certainty and their more or less deliberate vagueness, ambiguity, and distorted outgroup descriptions, may result in a sort of mental disarmament that makes appeals to large-scale aggression less effective than they have been so far.

Analytical Survey of Agreements and Disagreements

Introduction

In its recommendations for the use of material collected through the UNESCO inquiry into ideological conflicts, the Committee of Experts, which met in May 1949, suggested that an analytical survey of agreements and disagreements explicit or implicit in the material be worked out and published along with a selection of significant contributions received in response to the inquiry. On the following pages an attempt will be made to trace the outlines of such an analysis.

To facilitate assessment of the validity of whatever conclusions are suggested in the following, a few remarks on the character and limitations of the material under scrutiny are called for.

The inquiry undertaken by UNESCO was from the outset conceived as an enterprise in philosophical analysis: in analysis of meanings, conceptual differentiations, theoretical implications, and normative foundations. The preparation of the inquiry was guided by the idea that considerable progress toward the clarification of the grounds of current conflicts could be made through the initiation and organization of philosophically detached debates across national and ideological frontiers. Several avenues of approach to the implementation of this idea were discussed. The assembling of general essays on themes like "the nature of ideological conflicts," "disagreements over democracy," "the essence of democracy," and so on, was found to be of little avail. Some device had to be found that would en-

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sure a higher degree of comparability between opinions held on the more precise problems involved in the general issue. In an effort to achieve this end, a fairly detailed questionnaire was worked out. In its final form,¹ this questionnaire did not make any pretensions toward exactness in its formulations but was mainly intended to induce scholars and experts to focus their discussions on approximately the same range of basic problems and thus make it possible to reach a clearer picture of the location of agreements and disagreements.

The questionnaire thus devised was distributed directly or through National Commissions to almost six hundred philosophers, political scientists, jurists, historians, sociologists, economists, and others who had given evidence of interest in the foundations of ideological conflicts. Of those thus approached, more than one hundred sent in direct contributions to the inquiry. Others confined themselves to referring to or sending books or articles in which they thought they had already stated their views on the problems at issue. Still others explained that lack of time and the urgency of other commitments prevented their taking part in the inquiry. A few of those approached complained of the abstruseness, or futility, or both, of the undertaking, but on the whole the reactions registered were positive and sympathetic.

A considerable number of these contributions took the form of letters discussing one or more aspects of the problems at issue. Others were confined to laconic replies to the questions listed or consisted of short notes on a small number of points that had been found particularly important. A majority of the contributions, however, were fairly thoroughgoing in analysis and argumentation and were undoubtedly based on conscientious rethinking of the problems in terms of the approach adopted by UNESCO. Some of these took the form of general essays on the theme of the inquiry, and a few actually comprised monographs on more limited topics like the history of the usage of "democracy," the Marxian conception of "democracy," Soviet definitions of "democracy," and so on. Most of the more thoroughgoing contributions, however, kept fairly close to the order of questions in the questionnaire: although very few respondents found it worthwhile to work out replies to *all* the questions, a great many gave their views on more than half the questions.

A small number of the contributions were mimeographed and distributed to other contributors for cross-discussion of points of disagreement.

Unfortunately, only a small beginning could be made within the framework of the UNESCO inquiry toward systematic organization of such cross-discussion. A few samples of comments and replies to comments were included in the UNESCO volume described in the introductory note to the first article in this section and in the notes to this article.

The material made available through the UNESCO inquiry cannot in any way claim to be representative of world opinion in a statistical sense. Nevertheless, the material may be said to make up a significant cross section of enlightened opinion on the foundations of current conflicts concerning democracy. All the major trends of ideological thinking in the world of the postwar era have, in one way or another, found expression in the material, but unfortunately not always in direct proportion to their world importance, however that may be measured.

In the account of agreements and disagreements that follows, no attempt has been made at statistical tabulation of the data in the material. Given the relatively small sample and the geographical as well as ideological arbitrariness of the distribution of responses, any effort toward quantification would seem futile. Instead, all cases of complete agreement or disagreement have been explicitly noted; intermediary cases have been described by vague phrases such as "the majority," "many," "some," and "few." In a number of cases it was difficult to work out any definite classification of opinions and far more fruitful to outline analyses of the relationships between individually stated opinions. Adequate surveying was also made difficult by the fact that hardly any of the thirty questions of the questionnaire were given explicit answers by *all* the contributors. For several questions, so few answers were found in the material that it was thought advisable to pass them by in the survey.

It should be borne in mind that the analytical survey given below sets itself the task of taking into account opinions expressed in *all* the direct contributions received: it will not be confined to those published in the UNESCO volume. For reasons of space as well as to avoid repeating similar views, we could not print all the material: a selection had to be made. This survey may serve to remedy to some extent the inevitable shortcomings of a selection of this nature by supplying direct or indirect accounts of the ideological opinions and the philosophical analyses of a number of the scholars and experts whose contributions could not be printed in the UNESCO volume.

The publication of a volume of this kind will serve the purpose of acquainting a wider public with the complexity and diversity of ideological thinking. In the existing literature on the controversies on "democracy," only rare and unsystematic attempts have been made at comparative analysis of opinions held on the precise issues into which the general problem can be broken down. The UNESCO questionnaire has served to press the argumentations of the opposing parties into common or nearly common thematic channels and thus made a comparative survey possible.

The aim of the ensuing account is to trace the outlines of such an analytical survey of agreements and disagreements explicit or implicit in the material at hand.

The analysis will make it abundantly clear how desperately difficult it is to compare ideological patterns of argumentation in terms of theoretical agreements and disagreements rather than in terms of historical affiliations or concrete political antagonisms. By stating these difficulties in a frank and intellectually honest way, I hope that the analysis may serve to counteract tendencies toward ideological black-and-white thinking and toward propagandistic oversimplification of the issues. In this way, painstaking analysis of ideological opposition may serve the purposes of UNESCO by counteracting tendencies to obscure whatever is common to the doctrines of conflicting groups. An important step toward world understanding might be achieved through concerted action to thwart the effects of the kind of ideological thinking and propaganda that tends to exalt existing antagonisms beyond all possibility of settlement.

The classification of opinions expressed in the material under scrutiny has proceeded from the tentative assumption that ideologists mean what they say: that when someone expresses an opinion as his own, he has that opinion. The possibility that he lies—deliberately or unintentionally—is not discarded by this tentative assumption, but the assumption serves the pragmatic purpose of counteracting any tendency to succumb to the temptation of interpreting and classifying ideologically opposed statements so that they fit into preconceived and stereotyped pictures of the antagonism. The aim is to analyze controversies, not to continue them. One way to achieve this end is to classify statements at their face value. That is what has been attempted in the ensuing survey.

The obvious objection to the adoption of an initial assumption of this

kind is that no understanding of conflicts can be achieved without an analysis of the *motivations* of the statements from opposing camps, without an analysis of what is *really meant* and *really wanted* by those who use ideological concepts and appeal to ideological principles and ideals: it is such a trivial truism that people may really want and mean the very opposite of what they appear to say.

Nevertheless our tentative assumption can be upheld, and for three reasons at least:

1. What people say is, after all, one important symptom of what they “mean”: any opinion leader attacking ideological opponents will easily deceive his audience if for each statement he does not make it clear whether he is describing what his opponents say they believe or what he indirectly infers that they “really” believe.
2. Any one of us who has honestly tried to compare the doctrines of his own group with those of his opponents will have to admit how much harder it is to apply the brutal tools of motivational analysis to our own rationalizations, hypocritical appeals, and tacit assumptions than it is to those of our ideological opponents. Deeper insight into the intricately biased character of current imputations of “real” meanings and motives may result in valuable attempts to treat ideologically opposed doctrines on an equal footing, either by subjecting both to the same rigors of motivational analysis or by taking the more lenient approach of analyzing both in their surface expressions.
3. Even if we can prove that the opinion leaders of our ideological opponents hold doctrines very different from those they say they hold, there may well be large masses among their followers who believe just as sincerely in their expressed doctrines as we believe in our own. Uncritical emphasis on motivational analysis may therefore serve to strengthen the widespread ideological tendency to picture opponents as a homogeneous mass manifesting the same evil traits that have been imputed to its ruling group.

It goes without saying that this argumentation in favor of a comparison of expressed doctrines does not imply any depreciation of efforts to go

beyond the verbalized reactions of human beings. However, the comparative analysis of expressed doctrines is an important initial phase in ideology research. The material under scrutiny does not allow us to go any farther in this analysis: the study of the behavioral correlates and the social and historical settings of ideological controversies will have to be based on broader foundations of theoretical inquiries, historical investigations, and experimental research.

The Semantics of *Democracy*

Is the Term Democracy Ambiguous?

From the very outset of this inquiry nearly every one of those who discussed the matter seemed to expect universal agreement among the experts consulted on the first of the questions in the questionnaire: they were all expected to answer that democracy is ambiguous. A survey of the actual answers, however, reveals that they did not. A few of the contributors expressly deny that democracy is an ambiguous term. Several others attribute to it an unambiguous core of meaning unaltered throughout its usage in historically and geographically varied contexts. The majority of the contributors, however, expressly affirm the ambiguity of democracy. It is true that the introduction to the UNESCO document and the very wording of the question may have led a number of them to adopt this view without critical scrutiny, but that is a matter that will have to be left to conjecture.

One outstanding reason for the discrepancies in the reactions to the ambiguity question must be sought in the imprecision of current semantic terminology. Only crude beginnings have been made toward critical assessment and theoretical integration of basic concepts in semantics. Current usage of terms like *meaning*, *definition*, *synonymity*, and *ambiguity* is so vague that agreements as well as disagreements of a purely verbal character are constantly apt to crop up. There is no semantic highway opened up anywhere to the clarification of ideological disputes: rigorous analysis and codification of the theoretical structure of semantics and the logic of concepts and definitions will have to precede any successful attempt in this direction.

As used in the UNESCO document, the word *ambiguity* easily lent it-

self to divergent interpretations. There is ample evidence that the respondents did not all understand the word in the same way. The disagreement registered between respondents affirming and respondents questioning or denying the ambiguity of democracy may not necessarily have reflected ideological or theoretical discord but simply a difference in interpretation and usage: the disagreement might not have emerged at all if the question had been given a more precise formulation.

Those who deny the ambiguity of the term *democracy* do not therefore deny divergencies in its usage; on the contrary, they all expressly affirm that the term has been used in different ways in different contexts by different groups. That the word *democracy* is used in different and occasionally incompatible ways is not questioned by anybody. What is questioned is whether these divergences of usage constitute ambiguity and whether they are at all relevant to the determination of the meaning or meanings of democracy.

Several of those who entered upon an analysis of this problem have taken a stand for strict separation of meaning from usage.

Risieri Frondizi² takes the view that the word *democracy* is neither ambiguous nor unambiguous per se; it is only its usage that is ambiguous. An almost identical assertion is made by C. J. Ducasse,³ but perhaps for very different reasons. Statements by D. Brown, Charles Eisenmann, and Gunnar Heckscher seem to go in a similar direction.

How, then, is the meaning of the word to be determined if its actual usage is not to be taken into account?

A number of respondents simply postulate one sense as the only legitimate one, as the intrinsic, strict, or correct sense: actual usage may deviate from this sense but cannot alter it.

Thus, C. I. Lewis does not think that *democracy* is more ambiguous than most words in "its first, literal, or strict meaning": "All will agree that strictly it applies to any political regime in which the sovereign power is vested in the people at large, and that it applies to no other."⁴

Henri Lefebvre does not think there is any ambiguity in the concept of democracy: "Democracy clearly implies justice, liberty, order, progress, reason, fraternity, and a living community of individuals within the nation."⁵

Barna Horvath identifies democracy with "good self-government": "government by unanimous decisions proved to be good and useful to all."

DEMOCRACY, IDEOLOGY, AND RATIONALITY

This general sense of the term is stated to be perfectly clear and entirely free from ambiguity.⁶

Other respondents are equally bent on finding a central formula for the fundamental meaning of democracy but take greater care to determine the relation of this meaning to the traditions of usage.

Thus, Richard McKeon does not consider democracy ambiguous "in the sense that many different formulas have been proposed to define its meaning, but in the sense that many different interpretations have been proposed and elaborated for a formula on which there has been remarkable continuity of agreement. . . . Very few discussions of democracy, adverse or favorable, would be distorted in interpreting 'democracy' as the rule of the people in their own interest."⁷

Limiting his discussion to the nineteenth and twentieth centuries, John Petrov Plamenatz is convinced that implied by practically all serious statements that communists as well as liberalists have made about democracy is a primary meaning he thinks can be roughly defined as "government by persons who are freely chosen by and responsible to the governed."⁸

Going all the way back to Greek origins, G. C. Field thinks there is "overwhelming evidence" that traditional usage bears out a similar definition: "A state is democratic . . . in so far as the whole body of citizens . . . exercise an effective influence on the decisions of government."⁹

Jørgen Jørgensen discerns a far more general core meaning through the variations of usage and application: to him, democracy should be equated with "a general process of liberation and equalization" in all areas of human life.¹⁰

All those who have thus tried to formulate what in their opinion is the fundamental meaning of democracy have immediately felt themselves confronted by the problem raised by current ideological controversies over this keyword: Why the divergencies in usage despite the unity in meaning? Why the disagreements in interpretation despite the agreement in definition?

Solutions of the kind suggested by McKeon are explicitly or implicitly accepted by a number of respondents; agreement can certainly be reached on a central formula defining a basic concept, but disagreement will arise as soon as the different elements of the formula have to be interpreted in and applied to concrete social and political situations.

Chaim Perelman amplifies this approach by analyzing the possibilities of establishing a "normal sense" of the term: attempts might be made to arrive by way of inductions from empirical investigations at determining a structure common to all historically known usages of democracy. An empirical definition of this kind might take the form of a propositional function of one or more variables: agreement might then be possible on the structure of the function while controversies would continue on the value of the variables. It might, for example, very well be possible to define democracy as "government for the equal welfare of all as determined through the free decisions of all": the only advantage, if any, would be to have transferred the focus of controversy from "democracy" to "welfare," "equality," and "freedom."¹¹

Several respondents go into further detail in explaining the relationship between the fundamental meaning and the divergencies of usage.

Horvath, Lefebvre, Plamenatz, and Heckscher, however different their approaches may otherwise be, can all be classified as taking the view that the general meaning of democracy is as clear and free of ambiguity as ordinary language permits: it is the expression of an ideal, a standard, and a goal, a reflection of human aspirations. Ideological disputes do not arise from disagreements on this general meaning and the ideal type of human relationship it expresses: the disputes concern the conditions that make for progress toward the ideal, the means by which it can be reached, the order of measures to be taken in developing it. As a consequence, current ideological controversies do not center on the meaning of democracy but on theories of the conditions of its growth and the means of its accomplishment; what stands opposed are not analytical statements of definitions but synthetic statements of social and political interrelations. Accusations of ambiguity and misuse arise from unconscious confusions of means with goals as well as from deliberate attempts to identify accomplished conditions with the general ideal.¹²

The difficulty inherent in this kind of approach is that in actual practice it is very hard to reach agreement on what is end and what is means, what is ideal and what is accomplishment. Ideological statements constantly oscillate between analyticity and syntheticity, between the expression of the meaning of words and the formulation of empirical relationships between the matters denoted by the words. Statements about what

“democracy demands,” what “democracy implies,” what “democracy means” may be interpreted either way: what one party may question as a possible condition of democracy may be taken as an essential element of its concept by the other party.

Lewis seems to find the reasons for the ideological disagreements in a process of a similar kind when he states that although the primary meaning of democracy is clear and simple, controversies over its meaning will arise “because different parties wish to require further characteristics of anything they will allow to be called a democracy, and because they disagree as to what further characteristics are to be so required.”¹³

It may be inferred that a number of the respondents disagree with this view, partly because in actual practice the “strict” definition given by Lewis will turn out to admit of a great variety of interpretations, partly for the reason that a line cannot easily be drawn between a strict primary sense on the one hand and incompatible ideological uses on the other. The contradiction between the positions taken by Jørgensen¹⁴ and Alf Ross¹⁵ goes to show how mutual charges of ideological exploitation can be leveled even at attempts to formulate strict primary meanings.

In a short letter on this matter, Charles L. Stevenson suggests an approach that ought to inspire further elaboration: it merges into one model most of the elements introduced into the discussion of the ambiguity question by other contributors. To Stevenson, current ideological usage of *democracy* is characterized by multidimensional ambiguity. However used, the term covers complex concepts analyzable into a number of factors expressive of indexes or criteria of “democraticity”: the term is never ambiguous or vague in one respect only, but in several. The indeterminacy of its reference can be traced down to a number of reasons: (1) there is no agreement on the criteria to be included in the concept, (2) there is no agreement on the relative weight to be given each criterion, (3) there is no agreed-upon line of demarcation between “democratic” and “nondemocratic” on the theoretically possible scales that may be constructed to determine the degree to which each criterion is fulfilled.

The short formulas suggested by a number of contributors may serve to express opinions on the first point: the choice of criteria to take into account. Formulas emphasizing the political core of meaning will imply concepts based on criteria such as percentage of population having access to in-

fluence on government decisions, degree of independence of popular opinion formation, directness of popular influence, and revocability of mandates and decisions. Other formulas might give further emphasis to less clearly political criteria: equal distribution of economic benefits, equality of social status, degree of legal security, absence of discrimination, and so on. Others again may indicate concepts of an exclusively economic, social, or way-of-life character, thus opposed to the predominantly political concepts. Stevenson's main point, however, is that even if agreement were reached on the choice of criteria, democracy would still be multidimensionally ambiguous because each concrete application of the criteria would be indeterminate and a potential source of violent controversy: What relative weight should be given to each criterion? What scales of measurement or comparison should be chosen to determine the degree of fulfillment of each criterion? Where on each scale should the line be drawn between "democratic" and "nondemocratic"?

Several other contributors have stressed the impossibility of establishing strict lines of demarcation. Field, Horvath,¹⁶ and A. C. Ewing all maintain that in concrete cases no clear-cut distinctions between what is democratic and what is not democratic can be made; it is all a matter of degree, of more or less. Ewing states that "strictly speaking, we should talk, not of democracies, but of a democratic element in states." Statements of this kind must not be construed to imply indifference to democratic ideals. The point has been admirably put by Field: "On the other hand, there is, of course, no reason why we should not continue to speak, roughly, of one state as democratic if it has a considerable degree of democracy, and another as undemocratic if it has very little or hardly any at all, in just the same way as we speak of the weather as warm or cold, though we could not fix an exact point on the thermometer at which one ended and the other began. But we must not fall into the blunder, either, with regard to democracy or the weather, of speaking as if a difference of degree was not important. The phrase 'It's only a difference of degree' is nearly always a mark of political illiteracy."¹⁷

Ross takes an approach closely similar to that of Stevenson: he suggests the construction of a multidimensional "ideal type" concept of democracy that might serve as the basis for comparative assessments of the degrees of "democraticity" achieved in "real types."¹⁸ Whereas Stevenson is mainly

interested in mapping out the various modes of indeterminacy, though, Ross is primarily concerned with the construction of one working concept. Both attempts, however, point to the need for more painstaking analysis of the elements involved and for greater precision in the formulation of theories of their interrelations in ideological argumentation as well as in sociopolitical reality.

The majority of the respondents do not enter into any detailed analysis of these problems. A great number affirm the existence of incompatible usages of democracy and refrain from attempting to single out any one of them as the "correct" one, the "primary" one, or the "strict" one. Among those who take this attitude are Charles Bettelheim,¹⁹ Humayun Kabir,²⁰ Lord Lindsay of Birker,²¹ Perelman,²² Ithiel de Sola Pool,²³ Wilhelm Röpke,²⁴ Paul M. Sweezy,²⁵ George Boas, Ture Nerman, Svend Ranulf, and T. V. Smith. Arthur Lovejoy does not hesitate to characterize democracy as one of the most ambiguous words in current use.

It should be emphasized that respondents who thus affirm the existence of incompatible usages do not thereby deny the possibility that the usages may have common characteristics; but they do not think that these common traits suffice to make up a useful concept of democracy. Neither does the affirmation of equally valid but incompatible usages exclude the justification of proposals for the discontinuation of some of the usages. It does not even preclude the possibility of characterizing one or more of the usages as misuse in the sense of their being potential tools of deceit.

Complications of this kind have to be faced by anyone wishing to obtain clear-cut evidence of ambiguity. The question arises, What practical criteria are used by ideologists to identify cases of ambiguity? The second question in the questionnaire was formulated in the hope that respondents might quote different occurrences of the term *democracy* in historically given ideological texts and state their reasons for referring to one occurrence as an instance of one sense of the word and another occurrence as an instance of a second sense, incompatible with or at least divergent from, the first.

Evidence of Ambiguity

To any analyst interested in the elaboration of reliable procedures for the determination of minute as well as wide differences in usage, answers to the

second question must be said to have been disappointing. The majority of respondents did not think it at all necessary to corroborate their affirmations of ambiguity with arguments from historically given occurrences of democracy: they either stressed the superfluity and futility of searching for evidence for such an obvious fact or they considered the UNESCO inquiry and questionnaire alone sufficient proof of the ambiguity of the word. Although a small number of contributors—Jørgensen,²⁶ McKeon,²⁷ Ross,²⁸ Oliver C. Cox, J. M. Hagopian, Ranulf—took care to list a number of examples of what they considered usages sufficiently divergent to establish ambiguity, the difficulties involved in establishing rigorous criteria for the identification of cases of ambiguity were not explicitly discussed by anyone except David van Dantzig.²⁹ In assessing the relevance of the quoted occurrences to the determination of ambiguities, two points should be kept in mind:

1. The fact that ideologist *A* calls democratic a state that ideologist *B* violently rejects as undemocratic does not exclude the possibility that they both use *democracy* in the same sense; the disagreement may owe to opposing *descriptions* of the state in question. If *A*'s description were established as adequate, they might both agree that the state would fulfill the requirements of a democracy; if *B*'s description were established as adequate, they might agree to reject the state as undemocratic. Violent controversies over *democracy* may consequently be possible without any ambiguity in the concept.
2. Ideologist *A* may restrict his use of *democracy* to one kind of structure or relationship whereas ideologist *B* thinks it justified to use the term to characterize a number of other kinds of structures or relationships. This disagreement does not necessarily establish ambiguity, since a wider and more diluted sense may be constructed that is common to all the structures or relationships thus characterized.

To take an example, Ross seems to believe that sufficient evidence of ambiguity is implied in these four occurrences of *democracy* or close derivatives in everyday use: (1) The Danish state is a democracy. (2) This law, which deprives widows of economic support, is undemocratic. (3) The army ought to be democratized. (4) It is undemocratic not to take one's meals with one's servants.³⁰

Everybody will agree that in these four cases *democracy* is applied to very different kinds of structures or relationships. It may be inferred, however, that several of the respondents, and particularly Jørgensen,³¹ would disagree with the implication that this diversity of application establishes ambiguity; *democracy* may very well be interpreted to have been used in the same—although highly diluted—sense throughout the four examples.

The fact that practically all respondents leave untouched the intricate problems involved in establishing reliable distinctions between usages should surprise no one who is familiar with the present predicament of semantics and the linguistics of ideological discourse. As long as no reliable methods have been developed, it is quite understandable that even the most competent experts in ideology research fail to agree on the sense in which *democracy* has been used by the great ideologists of the past; it may not at all be necessary to explain their disagreements by assumptions of political bias.

Is Democracy Misused?

Analysis of the widespread complaints of ambiguity and looseness leads the way to a general discussion of the causes and justifications of the indignant charges of misuse that are so frequently hurled in all directions in current ideological conflicts.

This is a problem that seems to have attracted the attention of a greater number of respondents than most of the other questions on the questionnaire. A considerable number of contributors try to give explicit formulations of their criteria of misuse. Fairly thorough analyses of concepts of misuse are given by van Dantzig,³² Ducasse,³³ Jørgensen,³⁴ Lewis,³⁵ I. M. Bochenski, and Lovejoy. A comparison of the definitions arrived at will illuminate the terminological difficulties involved in the clarification of ideological controversies.

Ducasse works out a definition of misuse that furnishes a fruitful point of departure: "Misuse of a word is provable if either: (a) A definition of it is agreed upon, but the concrete things to which the word is then applied lack some of the characteristics specified in or implied by the agreed definition. This is misuse in the sense of misapplication. (b) One or more concrete things are agreed upon as being ones to which the word shall be applied, but

the word is then applied to connote one or more characters not in fact possessed by all the concrete things agreed upon as the ones to which the word shall be applied. This is misuse in the sense of mischaracterization.”³⁶

Ducasse is well aware of the difficulties involved in concrete applications of these criteria. The likelihood of agreement on denotation is just as small as the likelihood of agreement on connotation. An essential part of ideological controversies is focused on disagreements on the characters “in fact possessed” or not by such and such “concrete things.” What is the character of the state of affairs in the United States or in Soviet Russia? Charges of misuse in the Ducasse sense would be justifiable only on the assumption of agreement on descriptions of states of affairs of this kind: a highly unrealistic assumption as far as ideological controversies are concerned.

Bochenski introduces several additional elements in his definition of misuse: there is misuse if and only if (a) the word *democracy* is used in a sense *A* in addressing a public that understands it in a sense *B* different from *A*, (b) the public so addressed resents the shift in meaning from *B* to *A*, and (c) the state of affairs referred to by sense *A* is associated with negative value judgments, while the state of affairs referred to by sense *B* is associated with positive value judgments by the public addressed.

The important factors in this definition are the difference between sender use and receiver interpretation, the valuational relevance of the shift in meaning, and the relativity of misuse to the attitudes and moral dispositions of the public addressed. The definition does not require that the public has been actually misled by the shift in meaning: it is enough that it resents the shift.

The definitions introduced by van Dantzig,³⁷ Jørgensen,³⁸ Lewis,³⁹ and Lovejoy all give particular emphasis to the deceit factor: charges of misuse involve moral indignation at attempts to mislead audiences to accept opinions or adopt attitudes on false premises.

Lovejoy formulates a definition of this kind in the following way: “I should define the ‘misuse’ of a term as its use in such a manner that it is certain, or highly probable, that it will not be understood in the same sense by the readers and hearers as by the writers or speakers, but will nevertheless predispose the former to a favorable attitude toward the ideas favored by the latter, or lead to actual confusion of the two senses of the term.”

In this view, the use of value-loaded words with unstable cognitive con-

notations is a powerful tool of attitude influencing and control. The use of words of this character is an integral part of ideological persuasion processes: the very act of branding some usage correct and others misleading is a step in the process. Van Dantzig, Jørgensen, Lewis, James Marshall,⁴⁰ Perelman,⁴¹ Pool,⁴² Ross,⁴³ and the authors of the memorandum submitted by the International Society for Significs have given particular emphasis to this persuasive function of statements on democracy and its "misuse."⁴⁴

Some disagreement seems to exist on the question of whether charges of misuse should be focused on the actual act of using the keyword in a sense different from the one apt to be understood by the audience, or on the deceitful motive of misleading the audience by effecting a shift in meaning. Bochenski seems inclined to the former position. So does Marten ten Hoor, who seems to think that misuse can be charged even when the speaker or writer only fails "to realize that there are other meanings of the term than his own." On the other hand, Jørgensen does not think that unconscious or unintentional misleading of this and similar kinds can be charged as misuse: with the meanings of ideological keywords being as unstable as they are, nobody should be charged with, and thought guilty of, misuse unless a deliberate motive of deceit can be established at the basis of the misleading use of the word in question.⁴⁵ In a similar vein, Horace M. Kallen does not think the divergencies of usage can be traced to any kind of misuse unless "insincerity or malice is attributable to the user."⁴⁶ The difficulties involved in the identification of concrete cases of deceitful or insincere motivation have not, however, been addressed by any of the contributors.

The divergencies of emphasis and scope manifest in the definitions of misuse are reflected in one way or another in the disagreements registered in concrete exemplification.

Lovejoy concludes that in the sense he has given the word, "there appears to be extensive misuse of the word democracy nowadays, particularly in the propaganda of the Soviet Union." A considerable number of other contributors make statements to the same effect, waiving, however, qualifications and reservations of the kind indicated by Lovejoy.

Lefebvre states that democracy is being misused by middle-class politicians who mislead the people by trying to let their bourgeois democracy pass for the ideal democracy—be it from unconscious prejudice or from "a deliberate, cynical determination to bamboozle."⁴⁷

Bochenski stresses the relativity of any justifiable charge of misuse to the language habits and expectations of the group addressed: "Any man using the word democracy in the current Russian sense in addressing a Western audience misuses the word just as much as anyone using it in the Western sense in addressing a Russian audience."

A considerable number of respondents find it hardly justifiable, possible, or meaningful to charge anybody with misuse. Thus, McKeon,⁴⁸ Perelman,⁴⁹ J.W. Gough, Ranulf, and many others emphasize that in the absence of a generally accepted usage taken to define the "correct sense," no misuse can be charged. Others, like Pool,⁵⁰ Quincy Wright,⁵¹ Boas, and G. H. Sabine, urge the conventionality of word-meaning relations and tend to imply that charges of misuse cannot be upheld without inconsistency by those who adopt this view.

It seems plausible to infer, however, that the "misuse" notion repudiated by these two groups of contributors has more in common with the Ducasse concept of misuse than with the Lovejoy concept; they do deny the justification of charges of misuse in the sense of deviation from usage agreed upon as "correct," but they may very well affirm the justification of charges of misuse in the sense of deceitful exploitation of the language habits of the groups addressed. The surface disagreement may thus resolve itself into substantial agreement; this is only one of many cases of this kind that we shall have occasion to note in this survey.

What, then, are the main trends of answers to the question on misuse?

The confusion of terminology and the complex entanglement of issues make most of the answers difficult to compare. Any conclusions on "main trends" will consequently tend to be vague and airy.

First of all, the material at hand gives evidence that charges or denials of "misuse" may have largely divergent meanings even among experts, and that the diversity of meanings is not generally known to them.

Two main meanings of misuse vie with each other in the contributions: one "logical," the other "ethical." In the first sense, there are charges of misapplication and mischaracterization without any necessary moral relevance. In the second sense, there are charges of deceitful manipulations of meanings in processes of persuasion—charges with ethical implications just as pronounced as those applied to lies and fraud.

Practically all the contributors would agree that *democracy* is being mis-

used in the latter sense, but opinions differ in the concrete attribution of guilt: which ideological groups are most addicted to misleading use of the keyword *democracy*.

On the questions of misapplication and mischaracterization, considerable disagreement is evidenced. Some respondents seem to favor the assumption that a definite sense, a "strict," "correct," "real" meaning of *democracy* can be established and formulated; all use deviating from this meaning is automatically "misuse." Other respondents deny the possibility of singling out any such "correct" meaning and the existence of any universally accepted meaning; this they take to imply that no "misuse" of *democracy* is possible or chargeable—at least in the "logical" sense of deviation from "correct" use.

Confronted with this complex and confused picture, the analyst can only conclude that mutual charges of misuse cannot contribute to the clarification of ideological disputes—at least as long as in each case the criteria of misuse adopted are not explicitly formulated and empirical evidence is not proffered to substantiate the assumption that the criteria are fulfilled.

Aspirations Versus Achievements

Why is so much indignation focused on the terminology used in ideological disputes? One of the reasons has been sought in the frustrations experienced through constant misleading use of keywords: this subject has already been dealt with. Another reason may be sought in the frequent confusion of facts and ideals manifest in the use of keywords in ideological defense as well as attack: *democracy*, for example, may oscillate between denoting an established power structure in a society and connoting the ideal limits toward which the society strives to develop. Some of the violence of controversies and some of the indignation at ideological terminology may be traced to the mutual misinterpretations caused by this oscillation:

1. Our own high-pitched proclamations for democracy will tend to be interpreted as out-and-out praise for our status quo by our ideological opponents, whereas we—at least upon closer analysis—would reluctantly concede that our enthusiasm was largely directed toward characteristics so far not realized in our country.

2. Inversely, our criticism of the undemocratic character of an ideologically opposed people is by them interpreted as an attack on their cherished democratic ideals, whereas in fact our criticism was limited to the actual degree of achievement of those ideals in the rival country.

One of the questions⁵² in the UNESCO document focused on misinterpretations of this kind: it asked whether the confusion of ideals with actual conditions was apt to increase the violence of discussions.

The majority of the relatively few who discussed the matter gave affirmative answers to the question, thus Ducasse,⁵³ Horvath,⁵⁴ Jørgensen,⁵⁵ Gough, Heckscher, Nerman, S. V. Puntambekar, Ranulf, Emil J. Walter.

Lovejoy tries to determine in a more precise way the conditions for an increase in ideological violence. His brief remarks may be construed to indicate the following possibilities: (1) if everybody is confused about the meaning of the term, no increase is likely; (2) if one party is aware of the distinctions but believes that the other is trying to mislead by its ambiguous use of the term, increase is likely; (3) if both parties are aware of their equal immunity to terminological misleading, a truce may take place or new strategies develop.

McKeon takes the view that "the violence of controversies seldom results from the confusion of ideals with actual conditions": far more active as causal factors are disagreements on the character of the imperfections and the means to remove them.⁵⁶

The problem of the causes making for violence in ideological disputes is an empirical one that will have to be settled by investigations within psychology, sociology, and political science. The suggestions made in the UNESCO document and the answers given by contributors largely reflect intuitive opinions on the choice of therapeutical procedure in assuaging controversies.

New Uses

All questions that have been raised in order to throw light on the terminological tangles around the keyword *democracy* lead up to one that cannot be

answered without painstaking research: what can historical studies of the development of usage contribute to the clarification of the controversies over the “meanings,” “ambiguities,” and “misuses”?

Most of the contributors did not have time to concern themselves with historical questions. Those who gave them more than passing attention are easily counted: M. M. Bober on the usage of Marx and Engels, McKeon on the relation between conflicts found in classical and modern uses, Stanislaus Ossowski on bourgeois versus socialist uses, Plamenatz on Marxian-Leninist usage, Pool on the development of the split between Western and Eastern usages, Rudolf Schlesinger on Soviet usage, and Sweezy with remarks on the history of socialist usage. The conclusions arrived at in these studies cannot be surveyed in this context.⁵⁷ Suffice it to say that they reveal deep-rooted disagreements, which can be settled only by patient and detached research on a much larger scale than any so far undertaken.

The focal point of interest was, as might have been expected, the historical relationship between the liberalist-Western usage and the communist-Eastern usage. In the UNESCO questionnaire⁵⁸ the question was raised of whether any of the current usages—and it was apparent that the East-West split in usage was being referred to—could be considered “new” in relation, for example, to nineteenth-century or prewar usages. The question was deliberately left vague in order that respondents might be provoked to develop their views at greater length. Even though only a few could take the time to do so, a considerable number of others expressed fairly definite opinions on the subject without taking any great care to document them.

Practically all those who find that new usages have emerged in the twentieth century locate the main innovations in the usage of revolutionary Marxists and particularly in that of the ideologists of the Soviet Union and the popular democracies of Eastern Europe: thus Ross,⁵⁹ Brown, Heckscher, Nerman, Puntambekar, Ranulf. A few also consider usages stressing the social and economic content in general as “new” in relation to nineteenth-century use. It is quite apparent that the charges of innovation are closely correlated to general charges of misuse.

On the other hand, a number of respondents of divergent ideological affiliation take the view that both of the current major usages can claim ample historical justification: thus Lindsay,⁶⁰ McKeon,⁶¹ Stanislaus Ossowski,⁶²

Plamenatz,⁶³ and Paul M. Sweezy.⁶⁴ The position taken by Pool is slightly more sophisticated; both current usages are innovations in relation to the “classical” usage prevalent in Europe and America until about 1848.⁶⁵

The material at hand cannot support any positive conclusions one way or another. Further research is of importance for efforts of clarification and reconciliation, because arguments from the history of usage play active parts in controversies over “right use” and “misuse”: theories of terminological innovation support claims that usages have been deliberately coined in order to confuse and profit from the confusion. Research may show that the development of the use of *democracy* is too complex and many-sided to justify any monopoly of the term in favor of any particular ideological group. It is not, however, the task of the present analysis to conjecture what results further research will yield.

Common Characteristics

As a direct sequel to the question on the historical basis of current usages, the UNESCO questionnaire takes up for scrutiny the widespread opinion that the meaning of *democracy* cannot be understood in abstracto, but only in its historical relations to concrete social and political structures that have been classed as “kinds” of democracy. The question was asked whether these historical structures have any characteristics in common that make them democracies.⁶⁶

Answers to this question present a muddled picture because it is rarely clear exactly which of the many interpretations of the question the respondent has focused on.

Everybody agrees that *democracy* is not a proper name for one unique structure but a term that can be applied to structures that, although similar in a number of features, may well differ to the point of incompatibility in others. There is disagreement, however, on the range and extent of application of the term; thus, some do not think it is properly used in the phrase *Athenian democracy*, others would not class “bourgeois democracy” among democracies, and still others think that “Soviet democracy” is a misnomer, since in their opinion the Soviet regime is a dictatorship.⁶⁷

The majority of answers, however, express the opinion that all historically given democracies have common characteristics. It is true that these

characteristics are not always held to be common to all structures that have ever been called democratic but only to those that have "properly" been so called. Thus, Lewis states: "Insofar as all are truly democracies, they have in common two characteristics: (1) sovereignty is vested in the general will of the people, and all of them equally; (2) the government is such that it is a rule of laws and not of men."⁶⁸

Most of those who affirm the existence of common characteristics do not make any such reservations, however. Nevertheless, their formulations of the characteristics reveal very wide differences of scope and emphasis.

To James K. Feibleman, the different "kinds" of democracy have nothing in common but a common misuse of the term *democracy*. To Max Nomad, their only common characteristic is the fact that they all claim to be representative of the will of the people. Other contributors are more specific in their formulations of common characteristics. Charles Bettelheim takes the view that, although each democracy has to be judged in its historical context, they have at least one characteristic in common: that each, at its particular stage in history, represents an attempt to reduce to a minimum the scope and intensity of social coercion. Kabir finds a common characteristic to "all the different political systems and ideologies which we call democratic" in "the urge to establish an equivalence if not an identity" between duties and rights.⁶⁹ Gough finds that there are common exclusions: hereditary privileges, racial discriminations, and so on. McKeon⁷⁰ goes into further detail: "All democracies have in common (1) political institutions designed to make effective the will of the people in the regulation of the common life, without discrimination, of all the people, and (2) provisions in the organization of these institutions to protect against arbitrary action, by such devices as the protection of human rights and the promulgation of a rule of law."

The problem of whether the structures referred to by current Western usages have anything in common with the structures referred to by current Eastern usages is dealt with at greater length than any other.

Ossowski⁷¹ emphasizes the historical community of values that exists between the two conceptions. Similar views are taken by Horvath,⁷² Jørgensen,⁷³ Marvin Farber, and Arnold J. Lien. The material does not, however, furnish any detailed analysis of the individual characteristics thus deemed common to the two kinds of structure. There is approximate unanimity that such common traits exist, but the ones on which there is most

widespread agreement are hardly such as to affect the opposition of valuational attitudes toward the two kinds of structures.

Concluding Remarks

What kind of lessons can we learn from the answers to the terminologically centered first part of the questionnaire?

First of all, that there are deep-rooted disagreements concerning matters on which the common man cannot expect to be able to make up his own mind: on the technicalities of semantics, in the descriptions of divergencies of usage, on the history of the semantical fluctuations in the term *democracy*.

Second, that these disagreements among experts in a large number of cases reflect divergencies of ideological bias. There is a manifest tendency to present one's own views as the only ones worthy of serious consideration, whereas those of opponents are more often than not found to contain misrepresentations, distortions, and even deliberate fraud. There is a tendency to picture one's own efforts as serving the purposes of clarification only, while the tenets set forth by ideological opponents are primarily treated as instruments of persuasion adapted to political tactics. There is a tendency to use history as a tool of ideological justification and to affirm the validity of conclusions from historical study in ways more extreme and absolute than are warranted by the meager empirical evidence at hand.

Notable exceptions are to be found in the material, but this is a report on general trends.

The lesson of all this lies in the realization that knowledge of ideological processes is still so little developed that standardized oversimplifications of controversial issues can win widespread acceptance under the shelter of scholarly authority.

The answers to the questions on the semantics of *democracy* furnish excellent illustrations of this predicament: they show how even outstanding experts are apt to treat complex historical, linguistic, and philosophical issues as if there were only a choice between a true account and a definite analysis on the one hand and a heap of crude misrepresentations and deliberate distortions on the other.

Intense analysis and painstaking empirical studies may, if conducted by researchers free of direct ideological entanglements, prove a powerful

weapon against oversimplification and black-white thinking and thus make it harder to appeal to violence on false pretensions. The urgency of an expansion and intensification of ideology research is clearly manifested in the material on the first part of the UNESCO questionnaire.

Political and Other Democracies

The Lincoln Formula

Having in its first part focused on the general linguistic problems involved in current ideological use of the term *democracy*, the UNESCO questionnaire in its second and third parts proceeded to detailed analyses of two of the fundamental issues that were assumed to lie at the root of the intense controversies on terminology: (1) the problem of the relationship between political "democratization" and economic and social "democratization," dealt with in part B of the questionnaire;⁷⁴ and (2) the problem of the right of opposition and the limits of toleration within states to be classed as democracies, dealt with in part C.⁷⁵

None of the respondents has directly criticized this procedure. It is true that there is wide disagreement on the relative emphasis to be given the one and the other cluster of problems, but it seems safe to infer that there is general agreement that both are pivotal issues in the controversies raging in the contemporary world. An extensive survey of current ideological literature seemed to point to the same conclusion.

In its details, however, the UNESCO procedure has occasionally aroused emphatic criticism.

In the second part of the questionnaire, the Gettysburg "of . . . by . . . for" formula was chosen as a tentative point of departure for the analysis of current meanings of *democracy*: provocative interpretations of the three famous prepositions were given, and scholars and experts were asked to work out their comments.⁷⁶

A small but vocal number of respondents resented this choice of approach. Thus, Boas does not think that anything can be cleared up by starting out from a formula that "had an immense emotional force for Americans," but an emotional force that "was in inverse ratio to the clarity of its meaning." William E. Hocking remarks that "Lincoln was not professing to define democracy in his 'of . . . for . . . by' phrase; those who turn it into a

definition must bear the blame of wholly superfluous confusion." Lewis says: "I should interpret Lincoln's Gettysburg address as a tribute to the dead, and not as a political document."⁷⁷

Schlesinger is convinced that the procedure chosen is a highly misleading one as an approach to the analysis of the differences between the Western and the Soviet conceptions of democracy: these differences cannot by any artifice of interpretation be reduced to differences of emphasis on the elements of the Lincoln formula.⁷⁸

However all this may be, the Lincoln formula was chosen as a point of departure because it is still the central slogan of all groups professing their allegiance to "democracy." It has not only preserved its enormous emotional force with Americans and with Westerners in general; it is also constantly used as a formula for defining democracy by ideologists of the Soviet Union and the eastern European states.⁷⁹ In terms of analysis, this means that an inquiry need not start from the mere word *democracy* as a common denominator but can take its departure from the Lincoln formula and proceed to an analysis of the divergencies manifest in interpretations of its elements.

The interpretations suggested in the questionnaire for the *of*, *by*, and *for* relations provoked a considerable amount of disagreement. On closer analysis, however, this disagreement may be seen to be more apparent than real. Opinions differ because they are not answers to the same questions. Part of the discord undoubtedly owes to the vagueness of reference of the question put to the experts: Does it ask for the meaning Lincoln himself may be presumed to have attached to his words? Or does it ask for a general interpretation of how the American public of his time understood the words? Or again, does it ask for the meanings the words may be conjectured to have for the different groups appealing to them in the present age? Distinctions along these lines are generally ignored by the respondents; it is apparent that formulations of the "real" meaning of those historical words are sensed to be of vital importance in ideological persuasion.

In the questionnaire, the *of* relation was provocatively interpreted to indicate "the obedience of the people to the government."

Surprisingly, the majority of respondents seems to have agreed to this interpretation, although rather few state their view on this point explicitly. It seems safe to infer, however, that the word obedience has been taken in a very weak sense by those who have thus agreed to the interpretation sug-

gested: “of the people” is simply taken to mean that what is being governed is the people, that the people are the object of government.

Those who thus accept the “obedience” interpretation of the *of* clause do not thereby take it to express any necessary criterion to be fulfilled by regimes that are to be classed as democracies.⁸⁰ Ross is very emphatic on this point: “The preposition *of* would not seem to indicate anything beyond the bare fact that a government exists; any government is a government of the people. Who else should it govern?”⁸¹

Exactly the same argument is used by Bober,⁸² Perelman,⁸³ and Schlesinger⁸⁴ *against* the interpretation suggested in the questionnaire: if the *of* relation were only to indicate the fact of obedience, it could not serve to distinguish democratic from nondemocratic regimes. Against the diluted “obedience” interpretation, therefore, are pitted interpretations that make of an important index of “democraticity.” Perelman—and with him ten Hoor—takes the *of* clause to indicate that the people are the source of the government’s power, while Bober—and with him Max Nomad—takes the closely related view that the *of* clause means that the government is such that the people desire it and have affection for it. The difficulty with interpretations of this kind is that they tend to make *of* nearly indistinguishable from *by*; this point is particularly stressed by Lewis.⁸⁵

The “obedience” interpretation of the *of* relation may, however, be construed in the more positive sense that the decisions of government are regularly conformed to by the people. Aimé Patri makes a point of stressing this construction by analyzing the distinction between democracy and anarchy.⁸⁶ Sweezy, on the other hand, emphatically denounces the “obedience” interpretation as an attempt to impute to Lincoln a conservative attitude of admiration for “law and order”; instead, Sweezy maintains that Lincoln by “of the people” must have meant “belonging to the people,” emanating from the people, forming an inseparable part of the people.⁸⁷ Commenting on this interpretation of Sweezy’s, Ducasse expresses serious doubt about whether this was what Lincoln meant or his audience understood him to mean.⁸⁸ It may be questioned whether any such search for “real meanings” can contribute to the clarification of the issues involved; it is more important to analyze the persuasive function of imputations of meanings to authority-loaded statements.

In the cases of *by* and *for*, there is little disagreement on the general in-

terpretation of the relations they indicate between people and government; what is vigorously debated is whether both *for* and *by* should count in the determination of what is and what is not democratic. Opinions are almost evenly divided in the material: one group of respondents gives exclusive emphasis to *by* as the essential criterion; another group stresses the equal importance of *by* and *for* in the determination of *democraticity*. Attitudes and arguments on this matter are, however, so closely correlated to those registered on the question of “narrow” versus “broad” usage of democracy that separate treatment does not seem called for.

The “Narrow” Versus the “Broad” Usage

However vague, however laden with emotional associations, the Lincoln formula opens the door to further scrutiny of the role of the keyword *democracy* in current ideological struggles: What is the nature of the disagreements over the relations between the *by* element and the *for* element in the formula? What part do these disagreements play in the fundamental political oppositions of our age?

The division of opinion manifest in our material between adherents of exclusive “by the people” criteria and adherents of inclusive “by *and* for the people” criteria of *democraticity* reflects an issue of old standing in the history of political argumentation. A great variety of formulations—from terse sloganized catchphrases to complex systems of philosophical reasoning—have been devised to express what is taken to be the crux and essence of this opposition. Formulations have largely varied with political affiliations and ideological proclivities, and rare indeed are the cases in which opponents have been able to agree on any joint description of the opposition between them. In the UNESCO inquiry, this presented a dilemma that had to be faced squarely: the choice was between producing a formula so complicated and studded with reservations as to make it unreadable and indifferent and setting forth a cruder one at the risk of accusations of ideological bias. In the end, a compromise was devised: the opposition was tentatively described as one between a democracy concept “designating methods of decision making” only and a democracy concept “designating conditions and methods as well as results of decision making.” The former concept was then labeled a narrow political one; the latter, a broad socioeconomic one.

Objections to this formulation of the dichotomy took different forms. To several contributors (McKeon,⁸⁹ Ross,⁹⁰ Christopher Hollis, and Walter), the formulation appeared ideologically biased in favor of one camp—the communist camp. Not only does the term *narrow* have derogatory connotations while *broad* has laudatory ones, but the entire formulation seems calculated to leave the impression that the criteria involved in the one concept are engulfed without impairment in the larger concept—an impression the one camp has a vested interest in spreading, the other in combating and stamping out.

In assessing these accusations we must bear in mind that the formulation was set forth in an attempt to urge opinions on central divergencies in trends of argumentation and persuasive appeals, not on differences in application and achievement. It might well be questioned—and the material shows that it has been—whether the opposition thus formulated is the fundamental one in the ideological conflict currently raging between West and East; this, however, is a matter that will be dealt with in a later section.⁹¹ The opposition formulated reflects one of the many aspects of the general disagreement and deserves scrupulous analysis before the inquiry proceeds to further clarification.

A great deal of the debate revolves around the terminological question “Should *democracy* be used to cover the ‘narrow’ or the ‘broad’ concept?”⁹²

A small number of respondents strongly resented this question. There is no “should” about it, says Ducasse.⁹³ The question poses a pseudo-problem, states Sweezy.⁹⁴ The same position is taken by Lewis.⁹⁵ Bochenski is even more explicit: “All questions asking how a word *ought to be* used are without scientific meaning and cannot be answered. All that can be said is how in fact a term is being used by a [logical] class of men k.”

Nevertheless, the overwhelming majority of respondents does not hesitate to announce how *democracy* should be used; a large group favors the narrow use, but an almost equally large group comes out for the broad use. How are we to explain this striking opposition of reactions to the terminological question? A fuller restatement of the positions taken will show that the opposition is very far from being irreconcilable; the issue seems to turn on the interpretation of *should*, the minority taking it in an absolutistic sense close to its use in moral discourse, the majority in the pragmatic sense of recommendation and advice. The two positions can be outlined as follows:

1. To legislate, moralize, or dictate in matters of terminology is futile and nonsensical. There is no usage such that it *intrinsically* should or

should not be followed. There is no court sanctioning the observation of terminological norms. It is futile to press for terminological uniformity if there are groups that have vested interests in the continuation of existing usages, however heterogeneous. The ethos of science and the honesty of communication demand that current usages be carefully kept apart and specifically labeled; there is no justification for terminological *Gleichschaltung*.

2. It makes sense to recommend or discourage usages; terminological advice can be based on considerations of economy and efficiency of communication, stabilization of expectations, avoidance of frustrations, and so forth, and is just as open to rational argument as most advice on problems of interpersonal behavior. Moreover, attempts to influence and change the usage of others are very far from futile; they make up a normal element in communication processes.

In the material under scrutiny, the arguments used to justify preferences and recommendations in the choice between the two usages of *democracy* can be classified as follows:

- 2.1. If two usages of the same term are found side by side and the one covers a more precise concept, the other a more confused one, the former usage is to be preferred and recommended for general adoption while the latter is to be rejected and its further application discouraged.
- 2.2. If the one is already established in technical discourse among scholars and experts and has been found to serve a useful cognitive purpose, whereas the other only prevails in popular parlance and has never been adopted in any field of systematically organized knowledge, the former is to be preferred for general application while the latter is to be eradicated.
- 2.3. If the one usage defines a concept bringing together closely interdependent elements sharing significant features whereas the other isolates one or a few of these elements from the others and thus diverts attention from what they have in common, there is reason to adopt the former usage and reject the latter.

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2.4. If a usage can claim a representative history judged by the length of time since its emergence and by the authoritative status of its users, its continuation is justified.

2.5. If a term is heavily loaded with positive emotional associations, any attempt to use it in any but its "strict," "original" sense should be banned; the newly coined usage serves as an ideological tool of deceitful persuasion by effecting a transfer of favorable attitudes evoked by the term to objects, conditions, and actions that do not deserve them.

None of these arguments are, of course, very clear-cut: there is disagreement not only over their tenability but even more so over the relevance of their application in concrete cases. In the answers to the terminological question on *democracy*, arguments 2.1 and 2.2 are almost invariably used to justify preference for or recommendation of the "narrow" usage; argument 2.3 usually serves the cause of the "broad" usage; and arguments 2.4 and 2.5 are just as often used in favor of the one as the other usage.

Argument 2.5 is naturally the most malleable of all. To a number of those who are convinced that the narrow use is the "strict" and "original" one, all broader uses stand condemned as cunning attempts to usurp the traditional goodwill acquired by the term *democracy*. Adherents of the broader usages do not hesitate to return the charge; the narrow usage serves propagandistic purposes insofar as it bolsters attitudes of complacency with the status quo of the political setup and impedes the progress of reforms in socioeconomic conditions.

Jørgensen, accordingly, rules out arguments of the 2.5 group as cutting both ways: "There is no reason why the proponents of the narrow political concept should have a monopoly on the positive charge that for a long time already has made *democracy* a most valuable tool of persuasion. By reserving the word for the narrow concept they exploit for their own purposes the traditional goodwill it has acquired. Their reproach that the broad use is propagandistic can be countered by the argument that the narrow use is just as propagandistic in its effects."⁹⁶

On the whole, when debated on a level of philosophical detachment, the opposition between "narrow" users and "broad" users does not seem so trenchant as is generally assumed. Even the staunchest protagonist of the

strict technical use will admit that as used by a larger public the word will always tend to evoke associations and expectations far beyond what would be warranted by its definition as a narrow concept. Inversely, the advocate of the broad usage will generally concede that within limited contexts the narrow usage may have its cognitive advantages. Both will admit that usage preferences will depend on circumstances; factors such as audience expectations, fields of application, and purposes of communication will all have to be taken into account. The material at hand does not give reasons to believe in the existence of irreconcilable antagonisms on the terminological issues; the majority seems to attach importance to them less for their own sake than as reflections of the more deep-rooted theoretical and normative conflicts.

Mediating efforts are not lacking in the material. A number of respondents think that both usages can claim ample justification: thus Horvath,⁹⁷ H. A. Logemann,⁹⁸ Ossowski,⁹⁹ Sweezy,¹⁰⁰ Eisenmann, Farber, Herbert W. Schneider, and several others. They do not think that there is any reason to give the one usage preference over the other as far as cognitive usefulness is concerned. Neither do they think that appeals to history can tilt the scale one way or the other. There is no sense in monopolizing the term for one of the established concepts.

This does not mean that they advocate obedient conformity to the terminological status quo, but they take the view that the growing public awareness of ambiguities and divergencies in usage will gradually force ideologists and opinion leaders to refine their terminology; the isolated use of *democracy* will decrease and a differentiation of conceptual expressions will take place through specification by adjectives and indexes and through explication by more complex formulas. *Democracy* will then gradually cease to have a cognitive meaning of its own: it will only serve as an element in longer phrases designating the different concepts it has come to suggest.

This process is already well under way in both of the major ideological camps. Ossowski is particularly emphatic on this point. In his view, *Western democracy* and *popular democracy* are both integrated terms that have meanings independent of what *democracy* used in isolation may mean; the two do not designate species of some genus because the sense of the element *democracy* varies with the adjectives prefixed to it.¹⁰¹

A process of this kind will naturally lead to differentiations far more refined than the one suggested in the UNESCO questionnaire between a

“narrow” and a “broad” concept. The very formulation given for the broad concept invites further differentiation. Concepts of *conditions* of decision making may be differentiated from concepts of *methods*. Concepts of *methods* of decision making may again be differentiated from concepts of *contents*.¹⁰² A number of “narrow” concepts may thus be constructed and in their turn combined into “broad” concepts differentiated by the relative weight given to the criteria they engulf. This analytical process will, however, automatically lead away from considerations of terminological niceties to inquiries into the actual and potential empirical relationships between the factors isolated or combined in the concepts thus elaborated.

Political Democracy and Social Democracy Compared

The relations singled out for scrutiny in the UNESCO questionnaire were (1) those between conditions of decision making and methods of decision making, and (2) those between methods of decision making and contents of decisions made.

A number of respondents emphasize the practical and theoretical difficulties of keeping apart aspects that are so closely interrelated in one continuous process, but the majority of the contributors seem to agree on the heuristic value of the distinction made among conditions, methods, and contents of decision making.¹⁰³

All three factors play important parts in current ideological use of democracy. Schematically, their relations may be outlined in this way:

Does “democracy” require the existence of established methods for popular control of governmental decision making? It may be inferred that practically all respondents answer yes to this question.

Does “democracy” require the existence of conditions making for independence of opinion formation affecting the efficiency of these methods of popular control? To this, most respondents answer yes, but there is pronounced disagreement on the nature and scope of the conditions thus required.

Does “democracy” require limitations of the contents that the popularly controlled decisions may have? On this question, there is widespread controversy and no definite conclusions to be drawn from the material.

The methods requirement takes the form of a definitional statement; factual disagreements on this point concern institutional devices developed to ensure maximal efficiency of control.

The conditions requirements more often than not take the form of factual statements; disagreements concern empirical relations between economic, social, educational, communicational conditions on the one hand and the efficiency of popular control on the other.

The contents requirements express value statements more than anything else; disagreements concern the purposes that popular control ought to serve, and opinions vary from the acceptance as “democratic” of any decision the people may make—be it even directly suicidal—to the restriction of “democratically” acceptable decision contents to full conformity with an a priori theory of what the real interests and the real goals of the people are.

How do the terms *political democracy* and *social democracy* stand in relation to the distinctions thus made?

Most of the respondents seem to hold that *political democracy* is the more precise term of the two. It is not held to coincide, however, with the “narrow” methods concept outlined in the questionnaire; it is broader because it implies criteria that fall under the conditions requirements. Among such criteria, the material gives prominence to conditions roughly indicated by phrases such as “absence of intimidation,” “freedom of expression,” and “open access to information on public issues.” There seems to be practical agreement in the material that regimes not fulfilling criteria of these kinds should not be called political democracies; the trouble is that there is little agreement on the interpretations of these criteria in concrete contexts.

Social democracy is generally held to be much vaguer in its connotations. Interpretations differ markedly in the material under scrutiny. To some, the term simply signifies an organization of society establishing maximal equality of status in all respects: distribution of power, authority, respect, prestige, economic benefits, legal security, education, and so on. Others do not include equal distribution of power in the connotation of the term, thus contrasting it to political democracy. Still others do not include the economic element, thus distinguishing “social” from “economic” democracy. A considerable number leave out the emphasis on uniform equality and equate “social democracy” with “the general welfare of the

people," "the process of raising the economic and cultural level of the masses," and so on. Some explicitly identify it with government for the people, demophilia, as contrasted with democratia, government by the people.¹⁰⁴ Another potent source of ambiguity is introduced when the term *social democracy* is not only used to define goals to be attained but is focused on sets of means advocated for their attainment; thus, a considerable number of respondents identify the meaning of the term with measures and policies like socialization of the means of production, abolition of private property, and governmental planning and regulation of economic life.¹⁰⁵

All these divergencies in usage result in a confusion of issues and a mingling of problems that make systematic comparison of expressed opinions highly difficult. So complex and varied are the relations of facts at the bottom of ideological controversies that formulations of questions and answers in terms of general catchphrases and stereotypes can only obscure and jumble up the issues. Clarification can be achieved only through a painstaking process of differentiation, specification, and explication.

A number of respondents stress this point in their comments on the two questions raised on the mutual relationship between political democracy and social democracy.¹⁰⁶ Thus, Lewis finds the questions unanswerable because of the ambiguities of the terms to be related; to him, *social democracy* may mean economic equalitarianism or its very opposite, all depending on the general will of the people and the context in which it has to act.¹⁰⁷

Some respondents have tried to formulate in their own manner what they consider the fundamental problems involved in the vague opposition of "political" and "social" democracy. In this way they have made a more definite contribution to clarification than those who have contented themselves with setting forth their responses without making explicit which interpretation of the questions they are answering. The UNESCO questions were deliberately stated too vaguely and generally to admit of straight answers: the experts consulted were thereby urged to reformulate the problems in their own ways and thus further the clarification process by attacking them from different angles.¹⁰⁸

Explicit reformulations and implicit interpretations have largely revolved around two fundamental questions: (1) the relations of conditions to

methods of decision making, and (2) the relations of methods to contents of decision making.

In a first approximation, there may be said to be widespread though implicit agreement that these problems may be expressed in formulations more or less equipollent with the following: (1) Under what conditions—social, economic, educational, communicational—will methods of popular control of governmental decision making function efficiently? (2) What methods of control of decision making are most likely to ensure the formation of governmental decision contents aiming at bringing about optimal conditions of demand satisfaction for the people?

Answers to questions along these lines diverge partly because each element in their formulation is differently interpreted in different contexts, partly because different theories are held about the actual empirical relationships between the sets of facts denoted, and partly because different value orientations lead respondents to focus on different aspects of the problem clusters outlined.

Question 1 leads most of the respondents to tackle the problem of the economic foundations of democracy. Can the masses of the people express their will adequately in a social organization based on private ownership of the means of production? Can the masses control governmental decision making if all economic power is vested in the higher bureaucracy of the state? Can the people get to know what its interests are and find adequate and efficient expression for them if all instruments of large-scale opinion formation are controlled by groups bent on keeping the masses in a state of submissive obedience?

Major disagreements are evidenced in answers to questions in this category. The discords are partly focused on the definition of what constitutes “adequate control of decision making,” partly on hypotheses on the conditions of independent opinion formation, partly on the criteria to be postulated for the determination of the “real” interests of the people.

Question 2 has absorbed the attention of even more contributors: it raises one of the pivotal problems in current ideological controversies. In more concrete terms it might be formulated as follows: if the entire adult population is given access to control of public decision making in a society characterized by trenchant inequalities in social and economic status, will the contents of the thus controlled decisions be such that they will make

for a leveling out of inequalities and a general increase in the welfare of the people?

It is very difficult to give brief formulations of this problem without running the risk of accusations of ideological bias. It is even more difficult to report objectively on trends in the responses registered. Tentatively, two trends may be distinguished and roughly formulated in this way:

2.1. Popular control of decision making must be expected to lead to increased and generalized welfare because the people can be assumed to perform the control in the interest of the satisfaction of its own demands; any social reorganization for the improvement of general welfare must meet the test of actual preferences in the people and cannot be based on theoretical and a priori conceptions of what is "really" the optimal state of society and the "only" means to establish it.

2.2. Popular control of decision making does not necessarily lead to a state of general welfare because in a society characterized by economic inequalities the opinions and attitudes of the people are not developed to the point of conformity with its interests: a social reorganization is necessary to create the conditions that alone can make for efficient and adequate popular control of decision making.

In their extremes, these two trends may be exemplified for the first line of argumentation by Field's contribution, and for the second by Lefebvre's.

Field concludes his analysis of the problem by announcing as his choice for a platform slogan for democracy not the hackneyed Lincolnian formula but the words of William Jennings Bryan: "The people have a right to make their own mistakes."¹⁰⁹

Lefebvre develops the distinction between form and content to the point where he opposes to the Marxist definition of democracy by *the interests of the people*, a *formal* democracy "based on the body of opinions, more or less transient, more or less variable, and more or less well founded of the individuals constituting the majority."¹¹⁰

"It is not impossible that, at a particular time, one man, standing alone or almost alone, may be the true representative of a people or of all the peoples, and the whole of mankind. . . . May it not seem that Lenin, in

1914 . . . , stood for the true understanding of the historical situation, in spite of his isolation? That he thus became an active factor in that situation, grasped the content, the real significance and the underlying trend of history and was working *for* the people."¹¹¹

This deep-rooted opposition in outlook and value orientation has been given thorough attention by a number of contributors. Eric Weil builds up his entire essay around this dichotomy.¹¹² Bettelheim,¹¹³ Ducasse,¹¹⁴ Lindsay,¹¹⁵ McKeon,¹¹⁶ Patri,¹¹⁷ Plamenatz,¹¹⁸ Pool,¹¹⁹ and Eisenmann all contribute significantly to its clarification.

The opposition owes partly to differences in *expectations* of results from the institution of democratic methods of decision making. General hypotheses about the relationships—causal or otherwise—between methods and decision contents can scarcely be formulated or made testable: there are an infinity of factors to take into account, not the least of which are such relative intangibles as personality traits and general characteristics of behavior and attitudes in the peoples in question. In addition, the opposition must be seen in the light of conflicting value orientations resulting, on the one hand, from actual satisfaction with and support of the social order in question and, on the other, from actual impatience and discontent with the same social order. Supporters of the existing order may be presumed to be interested in preserving actual methods of decision making in the hope that popular control will not lead to radical social changes, at least not in aspects important to them. Opponents of the existing order will tend to be impatient with the working of the actual method of decision making and attribute its failure to the immaturity of public opinion preserved through centralized control of opinion-molding institutions. It is important to emphasize, however, that both sides in the opposition profess unswerving allegiance to democracy as a method of popular control of and participation in governmental decision making; the central difference lies in their opposed evaluations of the actual conditions under which the method is functioning. The analysis of question 2 thus leads back to renewed scrutiny of question 1: under what conditions will methods of popular control work efficiently?

This leads us straight on to an inquiry into the crucial differences between the ideological systems that stand in most direct opposition in current controversies: the Eastern and the Western.

The Crucial Differences

The UNESCO questionnaire was deliberately focused on the ideological opposition that makes up the greatest potential threat to world understanding and enduring peace: the opposition between the social and political views taken in western Europe and the western hemisphere, and the social and political views taken in eastern Europe, the Soviet Union, and communist China. There is no way of making this opposition simple and clear-cut; the actual variety of opinions and outlooks is too great in both camps. There tends, however, to be general agreement that the power conflict between the two groups of people stands in direct, if not always clear, correlation to a more deeply rooted opposition of ideological principles, theories, and value systems. A main purpose of the UNESCO inquiry was to encourage ideological experts to formulate their views of this opposition and assess the possibilities of its reconciliation and peaceful solution.

Formulations of the opposition show striking variations. On the level of mutual vilification, both camps have formulated their difference as one between "real" democracy and "mock democratic forms" masking the ruthless dictatorship of one group over the rest of the people. On a more reflective level, the opposition has variously been characterized as one between a "libertarian" and an "authoritarian" democracy, between Girondism and Jacobinism, bourgeois liberty and socialist equality, capitalist exploitation and working-class liberation, individualism and collectivism, an open society and a closed society, and so on. The amassing of slogans and stereotypes of these kinds has not contributed much to clarification. Fortunately, the material collected occasionally penetrates deeper into the analysis of the problems raised by the existence of this opposition.

To connect the discussion with the distinctions introduced in the analysis of meanings of democracy, the questionnaire took off from the "majority rule" – "majority interest" formulation coined by Bertrand Russell.¹²⁰ This seems to have been a fortunate choice because reactions proved very varied and threw light on the problem from many different angles.

Most of the respondents seem to accept the Russell formulation as a first approximation to a description of the central difference; among these respondents are undoubtedly ideologists from both camps. Evidently, the formulation is not taken as offering more than a rough indication of where

to look for the decisive difference; a one-sentence dictum could scarcely achieve much more. Those, therefore, who set forth accusations of oversimplification and distortion of issues seem to have overlooked the limited pretensions of the formulation.

However, all the attempts at closer scrutiny that are found in our material reveal the need for further differentiation and greater preciseness in the formulation of the opposition of ideologies. It may be that the Western ideology can be said to emphasize the "by the people" aspect, but it is important to specify in what sense this is true, because there seem to be other senses that make Eastern ideologists just as firmly adherents of "government by the people." Inversely, it may be plausible to hold that Eastern ideology gives predominant emphasis to the *for* element, but it is highly important to distinguish the sense in which this is true from the sense in which Western ideologists may be said to advocate "government for the people."

The need for more elaborate distinctions is particularly urged by G. A. Borgese,¹²¹ McKeon,¹²² Ossowski,¹²³ Pool,¹²⁴ Schlesinger,¹²⁵ and Sweezy.¹²⁶

Sweezy takes sharp issue with the identification of Western democracy with "majority rule." Quite to the contrary, it seems to him to mean "the inviolability of the rights and privileges of minorities," in concreto, the privileges of the propertied classes. Ducasse,¹²⁷ Field,¹²⁸ and Ewing take him strongly to task for this statement. It seems that he would have made a stronger case for himself if, instead of imputing to his opponents meanings they would scarcely acknowledge as theirs, he had elaborated the hypothesis that under Western conditions of economic equality the majority of the people are unable to make their demands count despite the existence of universal suffrage rights and normal election procedures.

On the other hand, Sweezy accepts the Russellian definition of Russian democracy as rule in the interests of the people and amplifies it by stating as the essence of the Soviet conception "the elevation of the economic and cultural level of the masses"; but he adds, very significantly: "and their active involvement in public affairs." In this way, the Soviet conception is made to appear to give emphasis to the "by the people" element, too. Bettelheim,¹²⁹ Lefebvre,¹³⁰ and Ladislaus Rieger¹³¹ all concur in this analysis. Schlesinger is particularly concerned with developing the point. In his view, the Bertrand Russell formulation of the East-West opposition over

democracy is dangerously misleading.¹³² In a lengthy and well-documented analysis of Soviet ideological texts, he develops the view that mass participation in the formation and execution of public decision making and not just the raising of the standard of living of the masses is the essence of Soviet democracy. He expressly rejects the assumption that it is "government for the people" in the sense of concentration on mass consumption; improvement in economic conditions is not deemed an end in itself, but an indispensable means of bringing about the "active involvement" of the masses in public affairs.¹³³

Inversely, a number of respondents resent the implication that Western democracy is only by the people, not for the people; in their view, the democracies are much more for the people since the general welfare developed has come about through deliberate action by the people. The by-for dichotomy is rejected as unrealistic and invalid by several contributors. Thus, Borgese says: "[I]t is impossible to conceive 'a rule of the majority' in which that rule is or may be deliberately or consciously at variance with the 'interests of the majority.' Such a democracy should be defined as the government of the people by the people against the people. . . . If 'democracies' of this kind were extant, there would be a point in Gromyko's definition of his own 'people's democracy.' Our purpose, he said, is the well-being of the people, 'whether they like it or not.'"¹³⁴

Argumentation along these lines raises anew the two problems outlined in a previous section: (1) Under what conditions can the people be expected to act politically in open consciousness of its "real interests"? (2) Can the "real interests" of the people be determined theoretically prior to observations of its actual preferences and overt choices?

Scrutinizing the philosophical implications of these problems, McKeon arrives at the conclusion that the West-East opposition cannot possibly be formulated in terms of a by-for dichotomy. "The broader opposition is between the use of factions and classes as a safeguard of the common good, and the appeal to wisdom or knowledge for the discrimination of the true good from the common good. . . . The one conception of democracy . . . would provide for social, economic, and political decisions, and even for the use of science in arriving at these decisions, within a frame that makes possible the resolution of differences, according to the preference of the majority, on the assumption that no one has infallible

scientific knowledge in any sphere and that the progress of science no less than the equitable resolution of differences depends on the toleration of diversity. The other would provide for social, economic, and political decisions through the application of the principles of dialectical materialism in resolution of problems in these spheres by the party of the proletariat, on the assumption that the method of dialectical materialism is the true scientific method and that not even all workers (since they have been demoralized by capitalism), much less the capitalists and those who incline toward capitalism, can contribute to the decision."¹³⁵

To McKeon, the focus of controversy is thus on the cognitive status of political propositions: Are they invariably fallible expressions of the conflicting or converging interests of the groups that make up the people, or can they be made into infallible scientific statements of measures and policy for the attainment of a state of society in true harmony with historical laws of development? Can, in general, political problems be solved by a science of society capable of establishing true statements that everybody will have to accept?

The discussion is thus transferred from the realm of sociopolitical relations dealt with in part B of the questionnaire to the problems taken up in part C: can scientific knowledge of social processes be developed to the point where an end of opposition to and criticism of the conclusions to which it leads can be justified?

This problem is discussed in an illuminating way in the comments made by Ducasse¹³⁶ and Field¹³⁷ on the position taken by Sweezy.¹³⁸ the discussion of democracy is clearly seen to open a highway toward the clarification of basic issues in contemporary epistemology and methodology.

Marshall and Pool¹³⁹ develop views on the East-West opposition closely related to those taken by McKeon, Ducasse, and Field; but, instead of the philosophical, they concentrate on the psychological aspects of the opposition. To them, the opposition is one between appeals to different personality types and ideals of interpersonal relationships; on the one hand, the emphasis is on the development of self-reliant, independent personalities free to challenge and criticize the authority and the theories of those in power, be they capitalists or bureaucrats; on the other, the emphasis is on the molding of submissive and obedient personalities lastingly conditioned to unquestioning reverence for authority and the ideologies of

the power holders. On the institutional level, this opposition translates into one between, on the one hand, devices for efficient expression of a plurality of opinions and the formation of a plurality of parties and pressure groups and, on the other hand, devices for the *Gleichschaltung* of opinions, the elimination of nonconformity, and the establishment of single-party government.

A survey of the opinions registered in the material on the question of the crucial differences between the Western and the Eastern ideological outlooks reveals in both camps a marked tendency to mold analytical distinctions onto the value orientations already taken for granted. Formulations of the crux of the opposition vary with ideological affiliations: the value attachments of the analysts determine their perspectives to a degree that makes agreement on the nature of the problems at issue virtually unattainable. Of particular interest is the widespread tendency to formulate oppositions in terms that set off the lofty aspirations of the one camp against the meager achievements of the other. A basic prerequisite for clarification would seem to be to reach an agreement either to stick to aspirations on both sides or to concern oneself solely with the dismal realities of actual achievement. In the former case thoroughgoing comparative studies in ideological argumentation might clear up what is as yet a virgin field for dispassionate research. In the latter case empirical investigations of social and political structures in their relation to actual attitudes and wants are urgently called for to set off in a truer light the teeming multitude of ideologically tilted statements that thrive on our general ignorance of the facts involved.

Opinion: Influence Versus Pressure

A problem constantly recurring in ideological analyses—outside as well as inside the UNESCO material—is this: how are the “real interests” of an individual or of the people to be determined?¹⁴⁰

A number of respondents, particularly Ducasse,¹⁴¹ Plamenatz,¹⁴² Brown, and Ranulf, agree in considering this the most fundamental of the issues taken up in the inquiry, but almost no one has ventured farther into this highly controversial and extremely difficult matter.

The main difficulty lies in the establishment of intersubjective agree-

ment on criteria and conditions of “realness”: it seems practically hopeless to disentangle what an individual is wanted to want from what he may be predicted to want under given circumstances.

Ducasse suggests this general formulation of criteria: “The real interests of the individual are those he actually prefers when he (a) knows what the possible alternatives are among which a choice is possible, and (b) knows both the hidden price and the hidden values, as well as the surface price and values.”¹⁴³

The crucial factor in this as well as in a number of less articulate formulations is the amount and reliability of information conditioning the preference. The analysis of the function of this factor leads to a general discussion of the conditions of opinion formation in societies that claim to be democratically governed. In the UNESCO questionnaire the question was given the form “In general, how would you trace a line between ‘democratically justifiable’ and ‘democratically unjustifiable’ processes of opinion-influencing?”¹⁴⁴

Responses to this question evidence a surprising degree of agreement. It is true that almost none of the respondents try to trace any definite line of demarcation of the kind asked for. This they consider futile and close to impossible in view of the tremendous differences in concrete situations. There is a large consensus, however, on the general standards to which opinion-influencing should ideally conform in a democratic society: these may not be explicitly or fully stated, but they may safely be said to be implied by the overwhelming majority of statements made on the subject.

It must be emphasized that the general consensus thus registered holds only on the level of ideals. There is extreme disagreement on the conditions making for optimal fulfillment of the ideals, whether in a capitalist, a social democratic, or a communist organization of society.

The ideals of democratic opinion-influencing implicitly agreed on by the respondents may very tentatively be formulated and classified as follows:

1. *Full information.* If and when a public is invited to express its opinion on an issue, the whole of the public should be given the means to acquaint itself with all arguments it would possibly consider relevant to the issue. Descriptions of what is at stake with regard to the issue should be as impartial as is feasible. If a small group within

the people has informational privileges, for example, by its position in the governmental bureaucracy or in the direction of a large financial or industrial concern, the public should be granted access to any part of the informational material of the group that would possibly be considered relevant to the issue.

Only if these conditions are fulfilled are individuals and groups justified in making propaganda for a particular solution to the problems involved. As long as the public is deprived of tools with which to resist opinion-influencing, any invitation to take an independent part in decision making is nothing but hypocrisy.

2. *Education and leisure to digest information.* If a group cannot partake in decision making because it lacks the general education and leisure that are at the disposal of other groups, every available means should be used to remove the disproportion. The more decisions touch the specific interests of the handicapped group, the more urgent is the elimination of these inequalities.
3. *Honest presentation of issues.* Given the inescapable fact that a public cannot effectively partake in all decisions affecting its welfare, the influence expert is forced to make a choice not only of issues for presentation, but also of aspects of the frequently complex problems involved. The temptation is always great to interpret expressions of public opinion and election results to imply positive or negative stands on questions never envisaged by the public. By refined and subtle as well as by crude and obvious bias in the presentation of public problems, the opinion molders can easily use this process of interpretation and elaboration to falsify the general picture of public opinion to suit their own interests. By clever selection of issues for presentation and by focusing public attention on those thus selected, the opinion leaders can elicit responses easily fitting their preconceived patterns and avoid responses that might be embarrassing or clearly opposed to their interests.

On the basis of these considerations, a third ideal may be formulated: if and when complex problems are brought before the public by groups with information privileges controlling means of mass communication, the selection of issues for public discussion and decision making should be such that the public is granted an

adequate chance to influence decisions on issues vital to its own interests and to influence them in directions that may go counter to those advocated by the groups enjoying influence privileges.

4. *Absence of intimidation.* Voting and opinion declarations of a similar character should not be influenced by threats of reprisals or promises of rewards. No pressure other than that of relevant arguments should be deliberately used in attempts to influence opinion. In particular, unpopular minority opinions should be protected against groups exploiting the prestige of popular majority status as a means to counteract minority influence.

These and other closely related ideals can, of course, be formulated in very different ways. The ones adopted express only a few of the many possibilities.

The advocacy of these ideals of opinion-influencing does not necessarily imply more than that their realization is viewed as something desirable. Consequently, there is no need to be committed to viewing their violation as more undesirable than the violation of any other ideal. Ideological controversy creeps in as soon as, in concrete situations, attempts are made to assign a "proper place" to ideals in a *hierarchy* of interests and norms.

As soon as the discussion shifts from the proclamation of ideals to the concrete confrontation of ideals clashing with ideals and of ideals clashing with what are considered "necessities," the analysis of agreements and disagreements becomes vastly more complicated. It is not at all surprising that so many of the respondents have found it impossible to trace any sharp line between "justifiable" and "unjustifiable" procedures of opinion-influencing.

Tolerance and Treason

What Should Be Repressed?

Answers to the third part of the UNESCO questionnaire include judgments on things, x , that should be tolerated or not tolerated, or that can or cannot be tolerated. The x 's are labeled by not too clear designations such as "antidemocratic propaganda," "attacks on democratic institutions," "pro-

paganda to change the form of government," "groups promoting a regime that would destroy the advantages of democratic procedure," "treason," "proposed changes through violence," "dangerous propaganda," "antidemocratic propaganda presenting a clear and present danger to the constitution," "people who do not support the existing social order," "opinions that make for insurrection," and "secret organization with the goal to change the form of government."

To compare the opinions of two ideologists one of whom tells us that we should not tolerate x , whereas the other tells us that we should tolerate x , we shall have to make sure that they are speaking of the same x 's, the same things—a task that often proves quite difficult. There is a tendency to class one ideologist as more tolerant than another if he proclaims tolerance and denounces intolerance in a louder, more emphatic or pointed way than the other. Close analysis may reveal, however, that the things x_1 , which the seemingly very tolerant person tolerates, represent a much narrower class of things than the class of things x_2 , which the seemingly less tolerant person is willing to let develop undisturbed. Or analysis may reveal that the designations used to characterize the x 's are too crude to warrant any conclusion as to what the ideologists in question wish to tolerate and what they do not. Here, as in many other cases, we shall have to analyze the actions of groups in order to be able to judge what they mean by their words. It is important to note, however, that inferences from nonverbal behavior are open to serious pitfalls even if made by neutral observers.

To obtain a survey of some important stands taken in the tolerance discussion, we shall work with the following classification of things that should or should not be tolerated:

- x_1 : opinions, advocated or not advocated in agitation, that, if held by sufficiently many, are apt to justify acts undermining the democratic form of government, or acts that would make it less democratic; the acts in question may be lawful within a democracy
- x_2 : opinions advocated in agitation that, if held by sufficiently many, are apt, etc.; the acts in question may be use of force, insurrection, high treason
- x_3 : agitation explicitly justifying acts of incitement to acts undermining the democratic form of government

x_4 : incitements, direct planning, and organization aiming at forceful overthrow of the democratic form of government

These very roughly delimited classes of things are sufficiently different to make it important to know which, if any, of them a given ideologist proposes for repression.

To avoid introducing tremendous complications, we have not differentiated between different concepts of "democratic form of government" and "less democratic." This seemingly uncritical attitude is based on the following opinion: however great the differences are between concepts of democracy, there is practically full agreement that the word should stand for something very valuable, something that is worth establishing or maintaining. Whatever their particular definitions of democracy may be, the ideologists' answers therefore reveal how they conceive of relations between things very valuable and policies of repression.

There are other distinctions, however, that are just as important as the distinction between classes of things tolerated. Suppose one respondent advocates repression of a relatively wide class of phenomena but adds that he takes as a premise that the times are troubled, that there are enemies of democracy who, if given the opportunity, could profit by the mere existence of opinions of the kind x_1 . Thus, the seemingly intolerant ideologist may limit the intended field of application of his principles to a very narrow class of historical situations, whereas a seemingly tolerant ideologist preaching suppression only of things of class x_3 may choose a very wide field of application for measures of repression. Close analysis may reveal that he means that in times of slight troubles of a rather common type, a much wider class of opinions and acts should be repressed. Thus, to understand the import of views proclaimed, it is necessary to try to find out *under which conditions*, historical, social, economic, and so on, the recommendations are expected to apply. If we call these circumstances the y -conditions, we could specify different y -classes such as:

y_1 : all conditions (i.e., suppression under any conceivable circumstance)

y_2 : times of trouble, of economic crises, of internal stress

y_3 : times of civil war or of impending or actual international war

Third, two ideologists both proclaiming that something ought to or must be suppressed may possibly mean rather different things by "suppression." If, for example, the one by suppression thinks only of legal prosecution by the authorities of the country, whereas the other by suppression means any means whatsoever of putting an end to something, the seemingly tolerant ideologist saying that antidemocratic propaganda should not be suppressed may in practice be less tolerant than one in favor of suppression: the one may advocate very effective measures of social discrimination, economic boycott, and so on, whereas the other may reject these measures but recommend suppression in the sense of legal prosecution with lenient rules. Mostly, but not invariably, the "suppression" and "nontolerance" spoken of in the answers relate to the question of interference by state authorities. Thus, we have a third variable to take care of when interpreting the ideologies of toleration and suppression; let us call it the *z*-processes: those constituting the *kind* of suppression or noninterference contemplated.

Although very few of the respondents have gone into detailed analysis of the difficulties involved in delimiting areas of tolerance from areas of suppression, most of them emphasize the practical impossibility of formulating universally valid and applicable rules in the field.

These difficulties are reflected in the confusing variety of opinions registered in the material. Any attempt to classify opinions on the tolerance problem runs the risk of distorting the significance of the statements made. Almost all formulations of scope and limits of toleration are studded with vague value expressions that make it a venturesome task to locate them even approximately along the *x*-, *y*-, and *z*-axes of reference suggested.

The majority of the respondents focus their discussion on the tolerance requirements implicit in their conception of democracy: their main concern is with the problem of whether allegiance to "democracy" implies the duty of tolerating or repressing opinions directly or indirectly aimed at overthrowing and destroying the institutions and structures they identify with democracy.

Pool,¹⁴⁵ Ross,¹⁴⁶ and Ranulf advocate the toleration of such opinions, at least insofar as they may be classed under x_1 , x_2 , and x_3 , but probably not under x_4 .

Ross distinguishes, however, between opinions and the *means* used to propagate them; just as he does not accept the toleration of physical con-

straint and violence as means of propagating an opinion, he will not tolerate the use of deceitful agitation and fraudulent distortion as means to gain adherence for it.

A number of other respondents seem willing to defend and advocate the toleration at least of opinions of classes x_1 and x_2 ; thus Edgar F. Carritt, Ewing, Lovejoy, and others. It is very difficult, however, to map out exactly how opinions are divided. The distinctions between opinions according to the directness of their relations to overt acts of violent subversion are at best very fuzzy. Some respondents, particularly McKeon,¹⁴⁷ Brown, and Hans Kohn, seem to find a reliable guide in the famous "clear and present danger" rule coined by Justice Holmes. It seems doubtful, however, whether a rule of this kind can fruitfully be applied under circumstances of such ideological complexity as those prevailing in our day.

A number of respondents discuss the limits of toleration directly in terms of their interpretations of the requirements of democracy.

Sweezy¹⁴⁸ and Hollis agree that any curtailment in the freedom of opinions is *ipso facto* a move in the direction of "less democracy": this does not exclude, however, that in concrete situations such moves may be deemed perfectly justifiable.

Others emphasize the right and duty of their "democracy" to defend and protect itself from being undermined by opinions that might bring about its destruction. Democracy does not imply an obligation to commit suicide, as Horvath puts it.¹⁴⁹

Some stress the necessity of repressing opinions directed against democracy as a *method* of decision making. Others go farther and require that opinions going counter to and endangering "democratic" decision *contents* be repressed: thus, Bettelheim,¹⁵⁰ Lefebvre,¹⁵¹ and Rieger¹⁵² all seem to think that any democracy, whether bourgeois or communist, will only tolerate opinions favoring the social order on which it is based. They even go farther to state that repression of opinions is compatible with democracy if it is directed against groups bent on reversing the trend toward greater and broader democracy.

A similar view is taken by Sweezy, but not on any basis of deduction from a definition of democracy: in his view, suppression of opinions is justified if designed to further the progress toward greater democracy, but not justifiable if it paves the way for further infringements of democracy.

A slightly different trend of argumentation is manifest in the Jørgensen contribution: antidemocratic propaganda should not be permitted as long as differences in social, economic, and educational status make parts of the population unable to resist such propaganda.¹⁵³

The less ideologists find themselves content with proclamations in terms of vague value judgments, the more they are forced to penetrate into the realm of concrete complexities of cases and situations. If current ideological doctrines were analyzed from a casuistic angle instead of an idealistic one, their interrelations would be found to be marked by incomparability rather than by incompatibility. Each ideological system bears the marks of its formation under the impact of states of affairs never seriously envisaged in rival systems. Ideologies cannot be understood and clarified unless they are seen against the particular historical setting in which they have developed, and related to the particular state of affairs faced by those who have vindicated them as well as those who have accepted them and believed in them.

It is not the aim of the present analysis to take up causal points, but I hope I am excused for suggesting that the ideological controversies owe in part to the general neglect of explicit statements of past and present conditions limiting the intended validity of ought-, should-, and must-sentences. That this neglect has its distinct advantage in consolidating ingroups and justifying hostility toward outgroups may to some extent explain why it has not been more seriously combated.

One-Party Systems

On the level of surface expressions, the respondents may be divided into four groups: (1) those who find one-party systems incompatible with any democracy; (2) those who find one-party systems compatible under some conditions and for some of the established usages of the term *democracy*; (3) those who find one-party systems compatible with democracy, without any reservations; (4) those who consider the party question irrelevant to the question of whether a regime is or is not democratic.

A definite majority of the respondents take the position that one-party systems are incompatible with democracy: Lewis,¹⁵⁴ Patri,¹⁵⁵ Plamenatz,¹⁵⁶ Wright,¹⁵⁷ Eisenmann, Hagopian, Wilson Martins, Nomad, et al.

Horvath,¹⁵⁸ Jørgensen,¹⁵⁹ and Ricardo R. Pascual take the view that, ideally, democracy does not require the institution of a party or parties; the only compatible system is a no-party system.

A few contributors, particularly McKeon,¹⁶⁰ Pool,¹⁶¹ Farber, and H. J. Simons, find that one-party systems may be compatible with democracy in societies characterized by conditions like homogeneity of attitudes and valuations, absence of public issues, identity of interests, etc., but they all emphasize that these conditions are so rarely found and so unlikely to be realized that one-party systems can be considered incompatible with democracy in all major societies of the present age. Inversely, group 1 may be inferred to agree that under most of the extreme and unlikely conditions listed by group 2, one-party systems would be compatible with democracy. Thus, the surface disagreement may be discounted as a verbal one.

Another potent source of verbal disagreement lies in the fact that few of the respondents have made explicitly clear what usage of *democracy* they are referring to in their judgments of compatibility or noncompatibility. Group 3 and to a large extent also group 2 seem to be using *democracy* in a broader sense, which respondents in group 1 would quite certainly not recognize as theirs.

Some respondents introduce distinctions according to usages: thus, Logemann,¹⁶² Perelman,¹⁶³ Bochenski, and others emphasize that, although one-party systems may be incompatible with democracy in the Western sense, there are certainly other plausible senses in which even proletarian dictatorship and Fascist totalitarianism will be found compatible with democracy. It is obvious that if broad usages of these kinds are adopted, answers to the one-party question cannot very well be anything but positive.

The members of group 3 manifest close similarities in their arguments for compatibility: they all stress the uselessness of pluralities of parties if there are no essential differences of opinion among those competent to judge and if the doctrines of the one party in power have the status of science and not mere opinion. If such conditions hold, it is argued, deviations are sure symptoms of incompetence or of unsocial, essentially criminal, behavior.

Thus, Bettelheim,¹⁶⁴ Lefebvre,¹⁶⁵ and Rieger¹⁶⁶ all assert that in socialist society—the only society in which these conditions are or will be

fulfilled—pluralities of parties have no *raison d'être*. Less categorical positions within the same group are argued by Horvath,¹⁶⁷ Jørgensen,¹⁶⁸ and Sweezy.¹⁶⁹

What is the nature of the disagreement between group 3 and the other groups? It is not necessarily based on terminological deviations. Group 3 may well adopt the same usage of *democracy* as, say, group 1 and yet be able to argue its case. The difference is one of perspective and outlook: conditions of society and developments in social knowledge that the one group considers close to realization are by the other groups held to be very far from realized or even impossible of realization. The real issue is not whether one-party systems are compatible or incompatible with democracy, but whether the conditions of unanimity of opinion, community of interests, and absence of issues that alone are agreed to justify one-party systems are realized or likely to be realized in any of the societies existing in our age. On this issue, opinions clash in a real way: they mirror the general opposition evidenced in ideological controversies over the status and potentialities of social science and over the scope of toleration of dissenting opinions and critical attitudes.

Scepticism and Democracy

The problems of toleration and repression lead directly to fundamental philosophical questions of the validity of ideologically opposed opinions and the possibility of establishing a science of society capable of commanding universal consensus for its conclusions.

In the UNESCO questionnaire the problem was formulated in terms of the relations between “scepticism” and “democracy.”

Philosophical dichotomies like scepticism versus dogmatism, relativism versus absolutism, fallibilism versus infallibilism, empiricism versus rationalism have come to play pivotal parts in twentieth-century ideological controversies. In the 1920s and 1930s, a significant trend in political argumentation focused on epistemological and axiological scepticism as a basis for theoretical defense of a formal methods conception of democracy as against the contents conception advocated on the left as well as on the right on the basis of philosophical absolutism and dogmatic rationalism.¹⁷⁰ In later years ideological controversies have even more pointedly

been concentrated on basic philosophical issues; the debate has been pushed far beyond questions of political and economic instrumentalities toward ultimate problems of cognition, valuation, and normation.

In the questionnaire a suggestive catchphrase coined by the British political scientist D. W. Brogan was chosen as a point of departure for the discussion: "Scepticism is part of our faith."¹⁷¹

No straight answers to the question could be expected. It was hoped, however, that respondents might feel provoked to answer in terms of kinds of scepticism and kinds of subject matters to be sceptical about. As a slogan in ideological debates "scepticism" may not indicate more than an attitude of doubt toward things on which the user wants to focus attention.

As might have been anticipated, the Brogan formula was interpreted in strikingly different directions. There is, accordingly, little sense in classifying responses according to surface agreements or disagreements.

It is highly important, however, to note the near-automatic rejection of the Brogan formula by all those who advocate the justification of one-party systems: to them, scepticism seems to be a term of strictly dyslogistic connotation only to be applied to wavering and uncertain opponents. Taking for granted that a reliable science of society has been developed and that competent and honest people necessarily agree on basic issues, they cannot but find the Brogan formula a highly misleading expression of "democratic" ideology, however the formula might be interpreted.

Jørgensen¹⁷² interprets the question to ask if the view that human beings are incapable of deciding whether or not divergent political proposals and measures are equally good can be used as an argument for the establishment of democracy in the sense of majority rule. He rejects the view both as in itself tenable and as a valid argument for political democracy. In this conclusion, we may infer, probably all the respondents agree; Jørgensen is the only one, however, who has gone into detailed analysis of the problems involved.

Wright¹⁷³ emphasizes in a similar way that if scepticism is taken to mean that "all views are equally valid or invalid," it does not have any affinity to requirements of democracy. There is nothing to indicate that any respondent would disagree with him on that point.

Swezy rejects the Brogan formula on the basis of a similar interpretation of scepticism: he argues that the existence of a science of society re-

futes the claim that “all opinions are equally valid” and concludes that there is no longer any justification for raising scepticism to the level of a principle of democratic ideology and for denying “that one political creed may be more compatible with democracy than others.”¹⁷⁴

In their criticism of the position taken by Sweezy, Ducasse,¹⁷⁵ Field,¹⁷⁶ and Pool¹⁷⁷ do not deny that some political opinions can reasonably claim a higher degree of validity than others, but they nevertheless defend scepticism as an important democratic principle expressing the urgency of constant alertness and critical-mindedness, and the conviction that only the open toleration of widely dissenting opinions can provide a safeguard against the perpetuation of errors backed by power and authority.

Lovejoy introduces a set of very important distinctions into the debate on this issue: “Democracy does not imply the assumption that no political principle or assumption can be known to be true. It does, however, imply four assumptions: (a) that any individual’s judgment on a political question may possibly be erroneous; (b) that no individual, as an individual, has a moral right to coerce other sane and adult individuals; (c) that—since, in the political state, it is necessary that on some matters joint and collective action be taken, and also that individuals be protected against coercion by other individuals, through the exercise of coercive power by the state—it is essential that some method be found of peaceably determining what collective action shall be taken and how far and in what ways the coercive power of the state shall be exercised; and (d) that the best and most effective means of settling peaceably such political questions, i.e., questions of state actions, is to permit all citizens of the state to participate in the settlement of them and to accept as the final settlement the decision of the majority. On these propositions democracy does not imply ‘scepticism’: it implies that the propositions are true. It does not, however, imply that the judgment of the majority is inerrant; and it therefore allows freedom to minorities to agitate and vote for the reversal of previous majority decisions.” (personal communication)

It may be inferred that most of those who, like Bober,¹⁷⁸ John Bowle, Brown, Smith, and ten Hoor, endorse the Brogan dictum without reservations also agree to the points made by Lovejoy; the scepticism implied by democracy does not extend to what are considered basic principles of its maintenance and growth. What is basic is, of course, highly controversial and reflects the divergencies in conceptions of democracy; this, however, is

only another way of saying that with the majority of ideologists, the principles lie well beyond the reach of any possible scepticism.

Value Foundations of the Conflict

In the last part of the UNESCO questionnaire, scholars and experts were invited to develop their views of the general philosophical foundations of the conflicts and controversies under scrutiny. A set of very vague and abstract questions and suggestions was given to stimulate reflective commentaries in the direction of formulations of the general nature of ideological disagreements and assessments of the conditions of their possible reconciliation.

Classification of opinions registered in this part of the material is practically hopeless and theoretically close to futile. The questions set forth gave rise to responses in highly different directions, and answers are only rarely comparable because the respondents have focused on different issues and interpretations.

A number of respondents take up for scrutiny the question of whether current ideological disagreements are fundamentally terminological, descriptive, or normative in character.¹⁷⁹

Responses to this question largely reflect attitudes to possibilities and procedures of settlement and reconciliation: should attention and efforts be primarily concentrated on semantic clarification, empirical and theoretical research, or direct action to bring about changes in basic attitudes? No incompatibility is apparent among the views taken by "terminologists," "descriptivists," and "normativists": there is a difference in perspective and approach without direct ideological relevance.

The greatest number of those who discuss this problem tend to stress as the focus of discord a difference in the analysis and theoretical conception of structures and relationships in society: views of this kind are taken by Bettelheim,¹⁸⁰ Bober,¹⁸¹ Horvath,¹⁸² Jørgensen,¹⁸³ McKeon,¹⁸⁴ Ricardo R. Pascual,¹⁸⁵ Sweezy,¹⁸⁶ Eric Weil,¹⁸⁷ and Lien. In principle, a difference of this kind might be expected to diminish with the gradual advance in scientific knowledge of social facts; this is what some of the respondents anticipated, but others point to the force of traditional patterns of thinking and the vested interests of privileged groups as obstacles on the road to settlement. Thus,

Sweezy thinks that what is holding back the development toward general consensus is "that those who have vested interests in the maintenance of capitalism do not want the truth to be taught."¹⁸⁸ Others return similar charges against communists. In the view of Ducasse¹⁸⁹ and Field,¹⁹⁰ there is no cognitive basis for reducing the current opposition to one between scientific truth in the one camp and tradition-molded prejudices and intellectual dishonesty in the other; the differences in analyses and interpretations of social relations reflect differences in value perspectives and political motivations.

Similar conclusions are reached from discussions of the relationships between ultimate political goals and means advocated for their fulfillment.

In the questionnaire, one of Lenin's formulations of the ultimate aim of political activity was given as an example, and opinions on its compatibility with other formulations of ultimate aims were urged.¹⁹¹ None of the contributors takes issue with the ultimate aim formulated by Lenin. There seems to be genuine agreement among all concerned that the ideal end of social development can well be described in terms like those used by Lenin.

As has so often been found in this inquiry, however, general agreement on ideals is unfortunately of little relevance to the clarification of ideological disagreements.

Perelman is particularly emphatic on this point: to him, the controversies are by no means assuaged by "the consoling thought that all political philosophers proclaim the same ultimate goal. . . . The ideological differences relate to real societies and not to utopia. Once conditions allow for the attainment of a utopia, ideological conflicts lose all interest and meaning."¹⁹²

In the same vein ten Hoor comments: "It is possible, of course, to state the aims of government in such general terms that there can be no incompatibility. However, incompatibility becomes a problem when we 'descend' to the level of implications, consequences, conceptions of ends, choice of means, etc. . . . It does no good to devise some generalization which seems to serve no function except to conceal this fact." (personal communication)

It might perhaps be objected that descriptions of ultimate goals need not necessarily be given in excessively general terms. Generality and abstraction are harder to avoid in proclamations on the means chosen to arrive at the ultimate goals.

Respondents generally concede that agreements on ultimate goals are

entirely compatible with robust disagreements on methods to be used in their attainment, on the potentialities of the existing conditions, and on the solution of actual differences of evaluation and judgment.

A number of respondents, however, stress an important qualification: it may well be that ideological controversies are mainly centered on means and conditions, but the possibility is not thereby excluded that the disagreements embrace a decisive *normative* element. Oppositions over the choice of means to a given end do not take place in a vacuum but are conditioned by the existence of a number of diverse intrinsic norms that may preclude the adoption of otherwise effective means. The disagreements are to a large extent concerned with intrinsic norms of this kind; values like the dignity of the human person, intellectual integrity, minority rights, and so forth, are frequently referred to as crucial in these respects. Neither of the parties in the conflict denies any of these values although they may be very differently interpreted in concrete situations: controversies take the form of mutual charges that the values are not respected or lived up to in the opposing camp.

Are the chances of reconciliation better or worse if the conflict turns out to be predominantly descriptive in nature? In the UNESCO questionnaire it was suggested that conflicts turning on ultimate norms might prove irreducible. Several contributors seem to take a similar view and emphasize, with Wright,¹⁹³ that "so long as opinions are regarded as relative and no values in the field are taken as absolute, there is always a possibility of reconciliation or of temporizing."

Others, however, take the contrary view that disagreements on means may well turn out to be equally deep-seated and intractable. Thus, Sweezy states that "people will cling to traditional or accepted patterns of analysis and interpretation just as tenaciously as they will to what are often regarded as more basic value judgments."¹⁹⁴ He even suggests that the very fact that both camps profess their allegiance to the same ultimate goals and values may turn into a source of contention and bitterness; each camp will accuse the other of hypocrisy and deceit.

Among the great variety of reflections made in the material on the general relations of value antagonisms to prospects of diminishing the acuity of the conflict, the following might be singled out as possible points of departure for further mediation:

Conflicting views on ultimates will exclude rational but not other approaches to the peaceful settlement of ideological conflicts. There is, of course, always the possibility that convictions on ultimates may change or simply wither away; this may affect the alignment of agreements and disagreements. The possibility must not be overlooked that ideological clashes are more or less deliberately kept going on semantic confusions and distortions of issues as a means to divert public attention from the nonideological clashes of naked ambitions for economic, strategic, and other kinds of power.

If the ideological conflicts can be traced to different conclusions from analyses of social conditions and to different predictions of how common aims can be achieved, potent rational approaches may be open for the reduction of the more violent consequences of the conflicts. Chances to obtain moral and general ideological sanctions for warlike measures will decrease if the conflict in question is set before the peoples involved as one centered on the choice of effective means for the attainment of compatible if not common goals. The possibility must, however, be taken into account that theories of social conditions and instrumentalities may be stubbornly adhered to in the teeth of otherwise adequate demonstration of their falsity: this emotional and volitional element in social knowledge may prove much harder to cope with and may provide an important obstacle to possible progress toward peaceful settlement of conflicts for a long time to come.

Conclusions

It is perfectly possible to compare ideological doctrines without prejudging the issues by taking a stand for or against some of the doctrines, but this requires a motivation that is rarely found among people who are actively engaged in political struggle.

Even the possibility of comparison has been implicitly denied, particularly by those (Nietzsche, Spengler, Sorokin, et al.) who believe that a human being cannot arrive at conclusions other than those that favor his interests, basic cultural heritage, biological drives, or other noncognitive factors. One of the reasons not to take the statements of these theorists too seriously is that they implicitly assume that they are exceptions to their

own principle. They indulge in vast comparisons and do not seem to doubt the objectivity of their findings.

Stripped of misleading philosophical entanglements, the problem of the objectivity of ideological comparisons seems to boil down to that of getting a sufficient number of researchers of diverse cultural and political backgrounds to work permanently and in a spirit of intellectual integrity on the issues involved.

Today, nationalist trends and political servility are fostered in research centers by their dependence on official bureaucracy or economic power. Social pressure is constantly at work on the researchers to make them produce statements agreeable to the dominant political trends. They are even implicitly expected to adapt themselves to the foreign policy of their nation: in times of shifts of alliances or outbreak of war, sudden shifts in theories are expected. Accounts of the history of allied powers are to be more sympathetic; accounts of hostile powers are to be altered in the opposite direction. There is scarcely a country in which those resisting such "revisions" have not been subjected to crude attempts at *Gleichschaltung*, instead of being encouraged and applauded as valuable organs of equilibrium in the planetary community of men.

Strong currents of international—or supranational—character can reduce the pressure on the researchers and make international loyalties compete with national ones. Such currents cannot prevail, however, without a strengthening of trends toward fair play in the struggle between national or subnational groups who compete for prestige and power. If on the subnational level we have ingrown habits of picturing antagonists in black and ourselves in brilliant white, and of looking at our opinions on controversial issues as absolute certainties while regarding those of our opponents as distorted and biased, we shall have no force to resist prejudged accounts of ideologies. We are easily made victims of "official" versions of the ideological situation.

It should be added that significant progress toward fair presentation of ideological oppositions cannot be expected as long as there is internal strife of such an intensity that a split morality is propagated by all opinion leaders: one when presenting the outgroup's platform and another reserved for the ingroup.

These are reflections relevant to any conclusions on findings on ideo-

logical differences in our age. The ensuing statements of conclusions must be interpreted against the background of these reflections.

1. The material gathered by UNESCO reveals that even among specialists in ideological research there are great *differences of opinion as regards matters of fact* of unquestioned relevance to the description of ideological antagonisms.

2. Consequently, a large proportion of the statements made in the contributions should be viewed as expressive of *working hypotheses* justifiable on the basis of present-day efforts in ideology research, but subject to continuous corrections in the future.

3. It is beyond the powers of present-day research to determine in any exact way the lines of agreement and disagreement between ideological doctrines. If sufficient knowledge were stored in individual minds, it could not easily be conveyed to others. Present-day language habits are not adapted to the immense task of exact comparison of beliefs of groups and nations engaged in struggles for material and spiritual dominance.

4. Attempts at such a comparison encounter the difficulty that the language habits are adapted to agitation and preaching in the field of ideology, not to fair presentation. Basic terms in the vocabulary of ideologies are emotionally loaded slogans, and to make them resistant to analysis is a virtue in the eyes of the indoctrinated.

5. The function of ideologies to stabilize motives of joint action and encourage the fighting spirit of their adherents, makes it of little concern to ideologists to formulate carefully the particular sociohistorical situation that makes their joint action possible and purposeful. Thus, the researcher who wishes to compare the normative statements of two competing ideological trends must himself, as historian, sociologist, economist, psychologist, etc., find out *which unstated premises of action are common and which are specific* to each competing group. It is not in the interest of ideologists to bring to attention the historical conditions of their normative proclamations. Rather to the contrary, they tend to stress any timeless, universal, or a priori character of which they can conceive.

6. It is a peculiar feature of our time that one positively loaded slogan is common to all powerful ideological groups and does seem to express more than mere positivity: it is more than a synonym for "good." This slogan is the term *democracy* and closely related derivatives.

7. Because of this slogan's universality, an inquiry into doctrines set forth as expressing democratic ideology is a convenient point of departure for the study of possible common features of all dominant ideological trends of this era. This method of study does not assume a priori that a common slogan implies the existence of a common belief.

8. Any formulation of universal ideological trends must be *prefaced by warnings*: the formulation presupposes successful clarification of linguistic, particularly semantico-terminological, confusion. It presupposes the even more difficult task of finding and *formulating implicit premises* of programs of social action. No individual or group can claim more than to give tentative, ad hoc conclusions on these matters.

9. The Lincoln formula affords a convenient point of departure for the analysis of ideological agreements on a "democracy." There is general agreement that to serve the people in the broadest sense of the term, and ultimately the people of the Earth, is the sole justification of government. Further, it is generally agreed that the people are served when each individual is given the fullest possible access to the means by which he can develop his own possibilities without jeopardizing the chances of others.

10. There is general doctrinal agreement that government should be "by the people," that is, that one should develop the most intense and widespread participation of the inhabitants in preparing, reaching, and carrying out decisions of importance to the welfare of the community. It is also agreed that such participation is possible only if a minimum of general education and leisure and energy is available for studies of the issues brought before the people. It is further agreed that in times of severe crisis, popular participation must be more or less reduced and opportunities of incitement to violent change of form of government curtailed.

11. From the unanimity on the principle of equal possibility of access to economic, educational, and cultural values flows an agreement that no individual should be allowed, by his particular talents or shrewdness, to reduce others to permanent dependence on him or to reduce permanently their and their offspring's access to economic, educational, and cultural values.

12. From the generally accepted broad interpretations of "people" flows a general rejection of race or color discrimination and a rejection of discrimination on the basis of religion, philosophical inclinations, or nobility of birth.

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13. Implicit in the doctrines of government by the people and the appeals to knowledge as the guide in solving questions of policy, is a rejection of leadership on the basis of mystical insight of elites, of a *Führer* and *Gefolgschaft* following "the instincts of the pure blood."

14. There is no indication of disagreement on the opinion that, in all ideological camps, people who sincerely accept the foregoing doctrines try to live up to their severe requirements and deplore the shortcomings of achievements so far realized.

15. The agreements thus listed make it possible to formulate severe criticism without leaving a common ground of accepted doctrines. The basic criticism will be that of inconsistency.

16. Even if the view were accepted that mere lip service to the *common aspirations and principles* is the rule and sincerity the exception, their codification and the *increasing frequency of appeals to them* the world over by individuals and institutions on the national and international level give to those who wish to propagate their sincere acceptance *a unique instrument* that should be tentatively perfected by research and worldwide educational drives.

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