



HERACLITUS

OSWALD SPENGLER



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TRADITION



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# Foreword

## Interpretations of Heraclitus in the Last Half-Century

This prologue to Spengler's essay on Heraclitus aims to integrate it by means of news concerning the development of Heraclitean studies in the last half century, examining the most important and characteristic among the interpretations that have appeared simultaneously and successively to Spengler's essay. Spengler, in presenting his interpretation in contrast to the previous ones, said that perhaps all possible explanations of Heraclitean thought had already been attempted, and listed nine divergent forms, contrasting them with his own (the tenth). However, in addition to those remembered and rejected by him, other different ones, unknown to him, had already appeared at that time, and many more have appeared since, multiplying the interpretative divergences and raising new problems concerning the understanding of the Heraclitean thought.

Consequently, any further study of Heraclitus and any effort aimed at understanding him are subject to a double requirement, namely: that of a knowledge (at least synthetic) of the main interpretations proposed,

and that of a direct contact with the documents concerning the personality and thought of Heraclitus that have come down to us from antiquity. To the first requirement the present prologue responds briefly, for the last half century; to the second I am preparing a systematic edition – which I have been preparing for years, and which will try to be more complete than those existing to date – of the ancient texts concerning the Dark One of Ephesus: testimonies, fragments, imitations, presented in the original text (Greek or Latin) and in Spanish translation with extensive commentary. The following pages are therefore linked to this forthcoming edition.



## Characteristics of Spengler's Interpretation

Spengler's essay, which appeared in 1904 as a dissertation for his doctorate in philosophy at the University of Halle, had a remarkable impact at the beginning of our century because of the originality of its interpretation of the Heraclitean doctrine. It outlined some of the essential features of Spengler's own thought, who, like Lassalle sixty years earlier, had found in the Heraclitean doctrine, or rather in his own interpretation of it, a path of orientation and formation for his personal philosophical construction.

Spengler's sympathy for Heraclitus stemmed from the suggestions he thought he found in him for his own orientation, despite his historical theory of the mutual incommunicability of cultures, which already had in this essay a first affirmation. However, there was associated with it the idea of an analogous process of the various cultural cycles, by which Heraclitus, aristocratic asserter of the creative struggle of all real distinction, in nature and in history, seemed to justify in advance the modern claim of the Germanic Herrenvolk to world domination. And furthermore, for Spengler, who linked his political ideas with the energetic physics of Mach and Ostwald, an interpretation of Heraclitus in an energetic sense was of particular interest.

The whole effort of his essay, therefore, is directed

towards a representation of the philosopher of Ephesus as totally isolated among the pre-Socratics who seek a substantial principle (*αρχη*) of all things: Heraclitus would affirm, according to Spengler, the idea of a pure happening, devoid of substance, governed by a law. Nothing durable in nature and in human life except the flow, the becoming, the struggle of opposites, the form or rhythm of movement (*logos*), which is the law of measure or harmony, fatality of the eternal ineliminable struggle.

To emphasize this energetic interpretation of struggle, Spengler denies on the one hand that fire is in Heraclitus the principle of things, declaring it purely a transitory metamorphosis like the others, and only more aesthetically apt to represent the restlessness and power of change; On the other hand, he denies that Heraclitus affirms a real identity of the opposites, attributing to him only the assertion of an identity of form between them, considered as antinomies, that is, insofar as neither of the two can exist without its opposite, each living the death of the other; and he denies, finally, that *logos*, the law of movement and struggle, can be identified with fire or understood as an intellectual principle or as God.

All these theses are opposed to those of other interpreters, which therefore awaken in the reader some doubt and the need for a comparison with the explanations of others, no less than with the original texts. Let us see, then, in the meantime what other interpreters later than those already considered by

Spengler have to say.



## I. Theodore Gomperz

The year before the publication of Spengler's essay, the second edition of the first volume of Theodore Gomperz's major work, *Griechische Denker* (Wien 1903; trans. French, Paris 1904; Italian, Firenze 1933), whose first edition in booklets, published from 1893 to 1902, had aroused great interest among Hellenists, but remained unknown to Spengler, who cites only an earlier work by Gomperz (from 1886, in *Wiener Sitzungsberichte*).

Gomperz includes Heraclitus among the Ionian naturalists, linking him – despite his proud presumption of owing nothing to any master – with the school of and especially Anaximander. He considers him the first speculative brain among the Greeks, justifying in part his pride in the superiority of his enigmatic wisdom, which makes him contemptuous of the mythological poets and the vulgar who follow them, as well as of the erudition (*polymathia*) of the antecedent investigators. The originality of Heraclitus is not for Gomperz in his theory of primordial matter – fire being the most apt for the process of universal life which never has rest, nor in that of the cycles of transformation and recovery of fire (downward and upward paths, coincident and identical), but in the discovery of the relations between the life of nature and that of the spirit, for which reason the natural order appears to him, more than to

Anaximander, as a moral order.

The divine universal principle represents for Heraclitus the universal intelligence and life (Zeus), which in every being, as well as in the entire cosmos, manifest themselves as an incessant cycle of construction and destruction, which has been and will be realized infinitely many times in the infinite course of time. The theory of cosmic cycles is associated with that of the universal flow of "eternally living" matter, comparable to the flow of a river whose water changes without ceasing. Everything moves and changes even when its transformation escapes our perception; which seems to Gomperz a Heraclitean anticipation of the discovery of the invisible movements that the atomist theory will later explain.

As a counterpart to incessant change, Heraclitus affirms the coexistence of opposites, in which Gomperz sees the relativity of properties presented: both lead to the negation of all stability of being and to the identity of opposites, the paradoxical character of which particularly satisfies Heraclitus, who prefers obscure and enigmatic assertions. However, his exaggerations and speculative orgies serve to give prominence to truths not recognized before him. Heraclitus would have thus highlighted the principle of relativity, in the sensations relative to the individual, in the institutions relative to the times; all of which explains and justifies changes and contradictions that could not be accounted for by a rigid and static conception of reality.

Thus we arrive at the coexistence of opposites, which has become the foundation of all valuation, of all life and activity, of all harmony. Conflict is father and king of all beings, of all hierarchy of values, which could not be produced without the clash of opposing forces in the cosmos and human society. Hence the exaltation of the heroes killed in battle.

However, Heraclitus reserves for us an even greater surprise with the intuition of a unique law that dominates the life of nature as well as that of men: the law of measure, divine law, eternal laws, whose universal empire replaces the arbitrary multiplicity of the gods of polytheism. Gomperz judges such an idea inspired Heraclitus by the Pythagorean discoveries of the law of number in astronomy and acoustics. Unconcerned with exact research, Heraclitus could, nevertheless, become a herald of the new philosophy. His explanations are often puerile, but his brilliant intuition of analogies allows him to extend from one field to another the discoveries of others. His choice of fire as primordial matter, which helped him to unify the natural world with the soul and the social world, also served him well in this respect.

Towards the intuition of the universal law he was driven by the demand for an eternal permanence in the face of the universal flux of things; he finds such permanence in the immutable law which is unified with animate and intelligent matter in the mystical conception of universal reason. It is not easy to

recognize this law or universal reason, because nature loves to hide itself; but (adds Heraclitus) we must expect the unexpected and see, even in human laws, the divine law that dominates everything.

By this idea of an immutable eternal law – says Gomperz – Heraclitus could be the source of a religious and conservative current; by the principle of relativity, on the other hand, he was the initiator of a skeptical and revolutionary current. On the one hand comes from him the resigned fatalism of the Stoics and the Hegelian identity of rational and real; on the other the radicalism of the Hegelian left and of Proudhon. It can be said, Gomperz concludes, that Heraclitus is conservative because he sees in every negation the positive element; he is revolutionary because in every affirmation he sees the negative element. Relativity inspires him with the justice of his historical assessments, but prevents him from considering any existing institution as definitive.



## II. John Burnet

Contemporaneously to Gomperz's work (and equally unknown to Spengler) another book of systematic research on pre-Socratic philosophy had appeared in England, which also marks a milestone in the path of modern studies concerning the subject: I refer to John Burnet's fundamental work, *Early Greek Philosophy*, whose first edition came out in 1893, and the second, of 1905. served for the French translation (*l'aurore de la philosophie grecque*). The long chapter devoted to Heraclitus (as well as the others) introduces new points of view in the interpretation of the author under study.

Burnet links with the historical moment and the religious revival of the time the prophetic and inspired tone found in Heraclitus as well as in Pindar, Aeschylus and other great personalities of the same time. This idea finds further development in the suggestive book by Karl Joel, *Der Ursprung der Natur Philosophie aus dein Geiste der Mystik*, Jena 1903, and in his later *Geschichte der antiken Philosophie*, I, Tübingen 1921, when considering the strong self-affirmation of the personality that characterizes all the pre-Socratics.

The great discovery which Heraclitus boasts of having accomplished (says Burnet) is that of the unity of opposites which converts their struggle into harmony. Anaximander had considered as evil and injustice the

division of the One in the opposites; Heraclitus, on the other hand, affirms that the unity of the One is precisely in the contrary tension of the opposites. One and multiple are co-eternal and identical; opposition and struggle are sovereign justice. That is why he chooses as universal substance the "ever-living" fire, whose life is flux and incessant change.

The process of this change does not seem to be related to the condensation and rarefaction of Anaximenes. Heraclitus presents it as a double path, downward and upward, in which the celestial fire turns half into water (sea), and the latter half into earth and half into *préter* (hurricane cloud of inflamed vapors); the earth then liquefies again into water, and the latter evaporates in exhalations that feed the celestial fire, while the vapors falling as rain turn into sea, and the latter into earth. In the reality of the double inverse cycle, however, the cosmos is always conserved, because all change is effected according to measures; and if there are sometimes imbalances (as in the alternation of day and night), they are always limited and annulled by their very consequences.

The fundamental opposition is thus established (according to Burennet) between fire on the one hand and water and earth on the other; and this is most clearly seen in man, the microcosm which suggests to Heraclitus the explanations of the macrocosm. In man the soul is identified with fire or dry exhalation, the body with water and earth; which explains: 1. the

alternation of wakefulness and sleep, which are one the communication with the cosmic fire, such as of coals burning by contact with the flame, and the other the isolation, as of coals far from the fire which are extinguished; 2. the succession of life and death. Not only does the soul die when transformed into water and weakens when moistened, but the dry soul is the best, and the death of fire (in battle) assures it a divine destiny denied to the death of water; and all opposition to the death of water is the death of the soul.

The concept of living and dead is related to the very antithesis of dry and wet. In the cosmos the vicissitudes of day and night, summer and winter, have the same cause; night and winter are produced by the damp darkness that rises from the earth and from the sea; day and summer, by the clear vapors that feed the sun, which moves on its daily and annual path in search of new food, like cattle in the pasture. According to the Hippocratic writing *On the Regime*, water and fire have a mutual dependence, for the former gives nourishment to the latter, and the latter gives movement to the former, so that neither can ever prevail completely, because in destroying its opposite it destroys itself.

This necessary persistence of the universal equilibrium is linked to the problem of the great cosmic year and the universal conflagration, whose affirmation is attributed to Heraclitus by the Stoics and witnesses coming from them, followed by the sea of modern historians of Greek philosophy. Burnet wants to refute

as erroneous such an attribution. In Heraclitus (he says) there is no idea of the great cosmic year in the sense of a cycle of formation and destruction of the world; what can be drawn from the allusions of Plato and Aristotle concerning a parallelism between the periods of man and the cosmos in Heraclitus, is only the idea of a great period of time in the course of which each partial measure of fire can fulfill the whole cycle of its way downward and upward; and this period Heraclitus thought of as a year (360 days), four days each being equivalent to a human generation (30 years), so that he composed it of 10,800 solar years.

But this idea of a cycle of each singular measure or portion of fire is in direct contrast (Burnet continues) with the other of a universal periodic conflagration, and the solution of Zeller, who says that Heraclitus did not realize this contradiction, contrasts with the Platonic testimony that Heraclitus said that always the One is manifold and the manifold One, while Empedocles alternated unity with multiplicity in the cosmic cycle. With a subtle interpretation of Aristotle's phrase (*Physics*, *rose*, 3) referring to the Heraclitean assertion that "all things sometime become fire," Burnet wants to show that only the Stoics begin to speak of a Heraclitean theory of conflagration. But the Heraclitean fragments usually cited in support (Diels, B65, 66, 67) may refer to successive particular changes, rather than to a simultaneous universal conflagration against which all the fragments speak of insurmountable measures in the

changes, watched over by the Erinyes and declare impossible the elimination of the struggle, which would mean universal death.

Heraclitus, Burnet maintains, declares the cosmos eternal, and therefore must have thought of a constant permanence of the conflict of fire and water of which the Hippocratic writing *On the Regime* speaks. A single instant of universal conflagration would destroy the tension of the opposites and thus render impossible the birth of a new world. The tension of opposites constitutes the "hidden harmony" of the universe, i.e., its structure by opposing tensions like those of the bow or the lyre. War reigns throughout the cosmos as it does among men; without contrasts there would be neither life nor harmony. Opposites are correlative because they are the two faces of all reality, which cannot exist one without the other, such as day and night, hunger and satiety, rest and movement, up and down, hot and cold, dry and humid, good and evil, etc.

The struggle between them is eternal divine justice and levity; the opposites are unified and coincide in God, for whom all are good in spite of human distinctions between good and evil. God, the unity of all opposites, the only one God, the unity of all opposites, the only who cannot be thought of anthropomorphically. Heraclitus continues the struggle of Xenophanes against vulgar religion; Burnet, on the other hand, refuses to consider him with Pfeleiderer as linked with the religion of the mysteries. His religion is a religion of the

universal unity which is the harmony of opposites; this is the only Wisdom or "common" to all beings (contrary, however, to the "common sense" or vulgar opinion of the masses) to which the ethics of the wise man must be inspired, who looks into the divine law, recognizing in the changeable human laws imperfect copies of the unique eternal exemplar.

### III. Karl Reinhardt

In the modern work of historical reconstruction of pre-Socratic philosophy, the book by K. Reinhardt, *Parmenides und die Geschichte der griechischen Philosophie*, published in Bonn in 1916, has a prominent place. Although his thesis concerning a disruption of the traditional chronological and doctrinal relationship between Xenophanes and Parmenides on the one hand, and between Heraclitus and Parmenides on the other, has been rejected by subsequent critical research, Reinhardt's work, with its broad mastery of the sources, even many neglected by others, and its critical independence of interpretative traditions, has contributed to an important renewal of many traditional views.

By way of contrast, it can be compared with the work of Tannery, whose effort was directed against Aristotle and the tradition that considered them as metaphysicians to restore to the pre-Socratics the character of physicists (physiologists = naturalists) <sup>1)</sup>. Reinhardt, on the other hand, opposes Aristotle himself and the tradition coming from him and headed by

1) However, Tannery did not consider Heraclitus a physicist either, but, above all, a theologian and moralist, who would have had a certain contempt for physics.

Theophrastus, reproaching them for having considered all the pre-Socratics justly as cosmologists or physicists; he claims for Parmenides and Heraclitus the character of philosophers essentially concerned with a logical problem (of identity and contradiction, of opposites) and were not concerned with the physical problem of cosmology.

In this displacement of the point of view lies his interpretation of Heraclitus, as well as of Parmenides, and his thesis of the disruption of the chronological-doctrinal relationship between the two.

Reinhardt starts from a critical analysis of the group of Heraclitean fragments (1/8 of the total that we have) that have come to us through Hippolytus, who, in his Refutation of Heresies, wanted to demonstrate that the heresy of Noetus was heresy and not Christian. Reinhardt wants to show that the source of the Heraclitean quotations of Hippolytus (and of Clement) is in the Allegorical Apophasis of Simon Magus; Hippolytus himself, by introducing them with a "he says" (Φησὶ) – which according to Reinhardt always means in him: "he wants to say" – would indicate them as interpretations and not as textual quotations. The Gnostic interpretation had justly (Reinhardt argues) transformed the meaning of the Heraclitean phrases. Heraclitus spoke of "*dike* who will comprehend everything," and the Gnostics had converted this into the Christian idea of final judgment and punishment by fire; and thus the legend of a Heraclitean affirmation of



universal conflagration would have been formed, which Reinhardt rejects as does Burnet, but on other grounds.

He recognizes it as affirmed by Aristotle (which Burnet denied), but reproaches it as an error, coming from the Aristotelian pretension of making Heraclitus a physicist equal to the other pre-Socratics, with his theory of the cycle of creation and destruction of the cosmos and with the theory of the universal flux. Theophrastus and the Stoics follow Aristotle; however, Theophrastus himself (reproduced by Aetius) must confess the lack of a true cosmogony in Heraclitus. Plato, on the other hand, had opposed the eternal immutability of the Heraclitean cosmos to the Empedoclean cycle; and Heraclitus, in fact, says Reinhardt, not only always speaks of cosmos in the sense of the actual order, but in his Fr. 30 (Diels) he affirms that this cosmos has been created neither by gods nor by men, but that it always exists (ζορί, according to Reinhardt, has here existential and not copulative sense) as fire that is kindled and extinguished according to measures. That is to say, always with equilibrium and limits of change, which exclude a universal conflagration, whose idea Clement wanted to introduce, adding in the fragment to the words "this cosmos" the interpolation: "the same of all" (the previous and the successive ones).

The idea of measure is repeated with insistence in Heraclitus; in all change (always particular and never universal) each form "lives the death" of another and vice versa, with constant equilibrium, in the microcosm

and in the macrocosm equally. Always identity of opposites and never cycle or imbalance: neither (Reinhardt maintains) in the vicissitudes of day and night, summer and winter, which Heraclitus explains with the constant and always equal play of light and dark vapors, sometimes collected in the nearest cup of the sun, sometimes (in its absence) in the farthest of the stars, with the light ones prevailing, sometimes the dark ones.

The exclusion of any cycle thus leads Reinhardt to the problem of the great cosmic years, attributed by Censorinus to Heraclitus. The Greeks (he says) did not know the great cosmic year (quite distinct from the astronomical) until Diogenes of Babylon introduced it from Eastern astrology into Stoicism; then the Stoics wanted to find antecedents of the conflagration in Hesiod, Orpheus, Heraclitus, etc., as is seen in Plutarch, *de defect. oracul.*, 11, who opposes the Stoic exegesis. For Heraclitus emphasized the Stoics in their theory of generation (30 years in which the cycle from newborn to grandfather can take place); counting the generation as a day, Heraclitus formed a great year of 360 generations (= 10,100 solar years).

But, according to Reinhardt, it is not about the great cosmic year, with its conflagration, but about an eschatological theory concerning the vicissitudes of births and deaths in the migration of the soul towards damnation or eternal beatitude. The eschatological concerns, expressed in many Heraclitean fragments, are

related to Orphic-Pythagorean hopes; Heraclitus wants to show that death – in the soul as in the cosmos – is just another form of eternity. However, at this point Reinhardt recognizes that an idea of cycle (*orbis aetatis*) and a calculation of its duration is introduced, for which Heraclitus does not multiply generation by an arbitrary sacred number (like other authors), but by that of the days of the solar year; and by this means he believes he finds the secret of secrets, determining the double eschatological period (generation and great year of migration) which represents in the microcosm what the day and the solar year represent in the macrocosm. Reinhardt does not realize what a disproportion there would be in this parallel, with cycles so small for the macrocosm and so great for the microcosm; and he insists instead on showing that the Heraclitean eschatology, which makes the souls of the heroes permanent custodians of the living and the dead, is irreconcilable with the periodic conflagration which should destroy them all, and that a contradiction on this fundamental point cannot be admitted in Heraclitus.

From the foregoing discussion Reinhardt deduces the conclusion of a complete separation of Heraclitus from the Milesian cosmogony. The roots of his thought (he says) lie in the logical problem of Parmenides, and not in the physical problem of the Milesians; physics interests him only in order to solve the logical problem of contraries, which had led the Eleatics to the repudiation of the sensible world. Heraclitus, on the other hand, he

wants to show that unity exists only in oppositions, and that contrast is not an external manifestation, but the intimate essence of unity. By using physics as a solution of the problem of opposites, he is no longer interested in the cosmogonic problem; and fire is not for him the principle, but a form of manifestation of the universal intelligence, which governs everything, being the unity of all opposites. Thus the Heraclitean doctrine is not a doctrine of flux, but, on the contrary, of permanence in change, of unity in discord, of eternity in expiration.

Therefore Reinhardt argues that Heraclitus supposes the Eleatics because the solution of the problem of opposites requires their previous approach; and this, according to Reinhardt (who seems to forget at this point Anaximander and the Pythagoreans), would have been had only with Parmenides. The Eleatics say: the opposites are mutually exclusive, and therefore the sensible world (world of opposites) is false, and the only truth is the immutable unity of being conceived by reason, which rejects non-being. Heraclitus replies: opposites demand each other; therefore, the world of opposites is the only true one, opposition is unity and harmony, flux (unity of being and non-being) is the true permanence.

Now, says Reinhardt, the prior discovery of the opposites as such was necessary, so that the solution of their problem could be attempted, with identity in change, being in becoming, union in struggle, harmony in contrast. All that means conciliation of sensation and

logos against their irreconcilable mutual opposition affirmed by the Eleatics. Only with the Eleatic problem can Fr. 1 (Diels) of Heraclitus be understood, which opposes the logos and its reality to men characterized by their incomprehension. This common logos is neither the law of the world nor cosmic intelligence, but the logical law, intrinsic necessity of logos in the gnoseological sense. That is why Fr. 50 says: "you must not give reason to me, but to the logos that is in you, and confess that all is one". This logos is what is common to all (Fr. 2), with which each one is always related (Fr. 72), so that to understand it, one must investigate oneself (Fr. 101).

In all this Reinhardt sees a solution of the Parmenidean problems, constituted by the discovery of the opposites, the irreconcilability of sense and reason, the impossibility of becoming by its opposition to being. To try new solutions, the Eleatic question had to be old; therefore it was necessary to move Parmenides backward or Heraclitus forward; and this second solution seems more plausible to Reinhardt, who in the same polemic of Heraclitus against Xenophanes (made by Reinhardt later than Parmenides and coming from him, against the tradition and general opinion of historians) finds a confirmation of the posteriority and dependence of Heraclitus himself with respect to Parmenides.

Plato already associated Heraclitus with Empedocles in the attempts to overcome the Eleatic negation; moreover, Heraclitus would show in his style, in his

rhetorical skill, in his language foreign to mythology and close to a later terminology, his belonging to a later epoch. Add to this his knowledge of the four qualities (hot, cold; dry, wet), which Reinhardt (without taking Anaximander into account) considers the creation of a later physics contrary to Milesian physics, which would have known only the states of aggregation of the four elements. The theory of the qualities comes (says Reinhardt) from the consideration of the microcosm, that is, from the Italic medical schools, from Alcmeon to Philistion; and its knowledge distances Heraclitus even more from the Milesians, and together with the abandonment of physics and the religious intonation which seeks mysterious relations between micro and macrocosmos (as did Alcmeon) and the theoretical affinity that unites him with Hippasus of Metapontus brings him closer to the western group, of Magna Graecia, where Pythagoreans and Eleatics flourished.

But in the relation to this group (according to Reinhardt) Heraclitus is not the one who gives, but the one who receives problems and theories; so he must be considered as the heir of the logical problem of Parmenides, whose solution he attempts with the affirmation of the unity of opposites.

## IV. Vittorio Macchioro

Among the many studies on Heraclitus that have appeared in Italy during the first quarter of our century<sup>1)</sup>, the essay by V. Macchioro, *Eraclito*, 1922 (later inserted in the second edition of his book *Zagreus*), deserves to be mentioned for the peculiarity of its thesis.)

The thesis of Macchioro, of an interpretation of Heraclitus by means of Orphism, had certainly antecedents in Pfeleiderer (*Die Philosophie Heraklits*, Berlin 1886), Nestle (*Heraklit und die Orphiker*, *Philologus* 1905) and others, in whose number we have yet seen Reinhardt; but no one had expressed and applied it in so strict and systematic a manner. Macchioro starts, like Reinhardt (but with a contrary, constructive aim, and without having news of the other), from the group of Heraclitean fragments quoted by Hippolytus; and he wants to valorize them by observing that in the interpretation of quotations we must take into account their character of quotations, intentional and not accidental; which proves their connection with the order

1) Let us remember, among others: E. Bodrero, *Eraclito*, Torino 1910; B. Donati, *Il valore della guerra e la filosofia di Eraclito*, Genova 1912; Al. Losacco, *Eraclito e Zenone l'eleate*, Pistoia 1914; A. Covotti, *Doseure di Efeso*, Soc. Reale di Napoli 1917; M. Cardini, *Eraclito di Efeso*, Lanciaeo 1918.

of ideas by whose ratification the quoting writer takes them out of the original whole, known and present to him, who therefore could interpret it in its genuine meaning.

Now Hippolytus, in Book X of his Refutation of all Heresies, wants to show in Heraclitus the doctrinal source of Noetus, who identified, in the trinity and the divine passion, the Father with the Son, affirming that one God is the creator and father of the universe, invisible-visible, unbegotten-generated, immortal-mortal; and to prove it he quotes, inserting his explanations, the Heraclitean fragments which in Diels have the numbers from 50 to 67, in addition to 1, declaring to take them from a chapter (κεφάλαιως) of the book of Heraclitus, which contained in synthesis all the essential thought of him. Direct and scrupulous quotations, Macchioro maintains; for when Hippolytus does not quote verbatim, but *ad sensum*, as for Empedocles, he says: "thus he expresses himself, more or less" (τὼς, τοιοῦτόν τινα τρόπον) <sup>2)</sup>.

Therefore, in attributing to Heraclitus an anticipation of the Noetian identity of Father and Son, related to the divine passion, Hippolytus must have found in the book of Heraclitus the only Greek myth where there is a divine father and son, distinct and identical, linked with a passion, death and resurrection, that is, the myth of Dionysus Zagreus son of Zeus, killed by the Titans and resurrected by the father. To this Zagreus (= child) Macchioro finds him mentioned in the Heraclitean



fragment 52: "the Aeon, child who plays with the cups, of whom is the kingdom"; and in front of him he finds the Father in fragment 53: "Pólemos (= Zeus), father of all things, who made the gods and men, the free and the slaves". Thus we have God the Father and the Son, who is the unity of all opposites (fragment 67); and we have explained the statement of Clement Alexandrinus, that "Heraclitus drew everything from Orpheus", and that of the epigram quoted by Diogenes Laertius, stating that to understand Heraclitus one needs the guidance of an "initiate in the mysteries" (mystes). In mysticism precisely (says Macchioro), with its initiation and palingenesia in God, was the affinity between Orphism and Christianity, which drove Noetus towards Heraclitism.

Incidentally, Macchioro argues, the parallel between Heraclitus and Noetus in Hippolytus should not be limited (with Bernays and others) only to the doctrine of the communion of passion between father and son (patripassianism); Hippolytus wanted, on the contrary,

2) Note the difference with respect to Reinhardt who maintained that it was a matter of interpretations and not quotations. The provenance of his quotations, declared by Hippolytus, from a chapter of Heraclitus, raises, however (no less than the division into three discourses asserted by Diogenes Laertius) a problem not considered by Macchioro. i.e. whether these divisions belonged to the original work or to some later compilation.

to show this parallel in all principles; and therefore, by accepting the quotations in the order offered by Hippolytus and recognizing the authority of his commentary, one can reconstruct the chapter from which Hippolytus draws the quotations, which Macchioro identifies with the Theological Discourse mentioned by Diogenes Laertius as one of the three parts of the Heraclitean book (the other two being the discourse on the universe and the political one). In fact the chapter used by Hippolytus presented the Orphic theogony; and the ancients called all theogonies "theology".

With the help of Orphism can thus be understood, according to Macchioro, not only the fragments quoted by Hippolytus, but others, and the theological discourse of Heraclitus can be reconstructed. Fragment 96: "the corpses should be thrown away more than dung", means, according to the explanations of Plutarch, Plotinus and Julian, that the body separated from the soul loses all appreciation; which is the doctrine of the Orphics, whose rite of cremation (*ekpyrosis*), testified by the Orphic cemeteries (*timboni*) of Magna Grecia, was the means to reach the *palingenesia*. The corporeal life for the Orphics is an evil and a true death; death on the other hand is rest (Frs. 20 and 21); and the human being is a real death (Frs. 20 and 21) and he finds the unexpected (Fr. 27), that is to say, eternal bliss. If the soul knew what awaits it after death (says Plutarch, *de anima vi*, cit. by Estob), it would no longer endure life,

according to Heraclitus. Heraclitus' scholastic doctrine, then, was that of Orphicism.

To fragment 27, which promises bliss (to) the initiated, there is fragment 14 which (says Clementus Alexandrinus) promises punishment after death and fire to those who celebrate orgies at night, to bacchantes and initiates. However, notes Macchioro, Clementus interpret as infernal punishment the fire of the ekpyrosis (conflagration) which in Heraclitus had no such meaning; neither could the contemptuous address have the indication of bacchantes and initiates. One could, indeed, threaten punishments (those infernal punishments that play an important role in the Orphic eschatology), but only for the reason that Clement adds, that is, "for being initiated into the mysteries without sanctity".

The mystical religiosity, then, was not for Heraclitus purely external ritual, but intimate, and became a philosophical doctrine as it appears in the fragment 62: "immortals-mortals mortals-immortals, living death, dying to live of those". Here, says Macchioro, the myth is reflected in Zagreus, whose passion and resurrection the initiate renews himself with mystical palingenesis, in agreement with the explication of this fragment given by Clement and Maximo Tirio. The soul that enters the body as in a tomb is released not only with death (which it cannot bring about itself) but also with the catharsis of initiation, with the palingenesis in the mystery.

Mystery and death for Heraclitus (says Macchiore) are two forms of palingenesis, moments of becoming universal, which fragment 51 explains as harmony of opposite tensions. Harmony, not in the musical sense, since the example of the bow together with that of the lyre, but of structure, which Macchiore explains with the double possibility of stretching and relaxing the string in both, which signifies unity in variability. Here is concord in discord (Fr. 8), the identity of living and dead, awake and asleep, etc. (Fr. 88), of straight and curved path (Fr. 59), up and down (Fr. 60). This Heraclitean identification of opposites proceeds, according to Macchiore, from the identification of life and death made by him as asserted by Plutarch and Sextus Empiricus; for which reason, Sextus adds, souls are dead in us when we live and alive when we die. That is to say, the Heraclitean intuition of the identity of opposites would have mystical origin, from Orphism.

From this mystical religiosity comes the respect for the rites expressed in fragment 14, which is not condemnation but justification of the phallic rite, of the Bacchic rage, of the Lenca festivals. But the rite for Heraclitus should not be exteriority, but intimate mystical experience; and that is why fragment 5 reproaches and condemns the rites that are not spiritual "remedies" (Fr. 68), that is, that do not respond to the requirement of catharsis and palingenesis of the soul.

The mystery had to be lived experience, not dogma or theoretical teaching; and lived experience had to be

the inspiration that Heraclitus drew from Orphism for his philosophy. From there comes, according to Macchioro, the contempt expressed by Heraclitus for the intelligence of men (Frs. 1, 17, 34, 78) and his pretended wisdom (Frs. 40, 70) that does not reach to understand the essence of things and the unity of opposites (Frs. 61, 67, 111), all good and just for God, in contrast to human distinctions (Fr. 102). Relative human knowledge is mistaken (Fr. 50); intelligence does not understand the hidden harmony (Fr. 54); another form of knowledge is needed, that is, mystical intuition, communion with God in the catharsis of mystery or death (Fr. 26).

Close to this catharsis Macchioro believes that Heraclitus placed the dream, because it would subtract man from the common world (Fr. 89) and would grant him a communion with the universal logos through the divinatory power of reverie (Cf. Fr. 75 Testimonies of Chalcidius and Sextus Empiricus interpreted by Macchioro in a very debatable sense). With this mystical anti-intellectualism Macchioro explains the Heraclitean dogmatism, his confession that one should not listen to him but to the logos (Fr. 50), his affirmations of the importance of hope and faith for knowledge (Frs. 86, 19) and his demand for the investigation of oneself, of one's own interiority in order to know and understand (Frs. 101, 116). By this mysticism, finally, Heraclitus may have seemed to Noetus a prophet of Christian thought.



## V. Werner Jaeger

W. Jaeger has dedicated few but very dense and penetrating pages to Heraclitus in the chapter on Philosophical Thought and the Discovery of the Cosmos in his book *Paideia, I*, Berlin 1933 (English translation Mexico 1942).

Heraclitus, says Jaeger, is no longer to be regarded as a naturalist, whose fire may signify a physical theory such as the water of Thales or the air of Anaximenes. He is certainly under the powerful influence of the earlier natural philosophy, and is based on the ideas created by it, of the cosmos as totality, of the incessant cycle of becoming in which the permanence of being is manifested; but what he seeks is no longer an objective intuition of being in which man is immersed and sunk, but he wants to show the convergence of all the forces of nature in man, as of spokes in the center of the circle. They are men, no doubt, instruments of a higher, universal power; but this power lives in them also; and its knowledge is not achieved by gathering external facts through a multiple dispersed history incapable of providing wisdom, but through the investigation of itself, of the interiority considered not in its particular idiosyncrasy but in its relationship and identity with the universal logos. That is why Heraclitus says: "however far you go you will not find the limits of the soul, so deep is its logos".

The logos, whose dimension of depth is first affirmed with Heraclitus, extends to the total sphere of human, as well as cosmic; from him proceed in man the word and action (Fr. 1), that is, all life, which in the knowledge of the logos must acquire a conscious orientation. Heraclitus presents himself as a prophet of this logos, interpreter of the enigmas of life and of the nature that loves to hide itself. Men live as if asleep, each in his own particular world of sleep; they must be awakened to the consciousness of the common logos, which each must follow and obey as well as the citizen to the law of the polis and even more.

The whole universe has its law just as the polis has its law; rather, in the divine law all human laws are nourished; and this divine law is understood by means of the logos, the organ of sense of the cosmos, spirit and fire that penetrates the cosmos as life and thought, and which knows itself and knows its universal action. His presence in man gives man a place as a cosmic being in the cosmos already neglected by earlier naturalism. His revelation constitutes the superiority of Heraclitus, for it is the teaching of the way of life, which must follow nature and divine law, in word and action.

The new teaching of Heraclitus is in the doctrine of the opposites and of the unity of the whole, related of course to the representations of Milesian naturalism, but vivified by the direct intuition of the process of human life. In Anaximander there was the struggle of opposites, which fell under the sanction of judging time; in



Heraclitus the struggle is generative of all things, and is itself Dike, unity and harmony. The new Pythagorean idea of harmony intervenes to illuminate the law of oppositions that interchange and identify themselves in the process of cosmic life, where the death of one is always the life of another, change is permanence, and everything is one and the same, realizing its unity by opposite tensions, as in the bow and the lyre.

Thus, in contrast to the previous philosophy, the doctrine of Heraclitus appears as the first philosophical anthropology. Undoubtedly man is part of the cosmos, subject to its law; the anthropological circle is surrounded by the cosmological and theological; but, by the immanence of the divine law in the spirit, man can reach the highest wisdom, the consciousness of being a member of a universal community that comprises in itself the polis and its laws. And from the idea of the divine law Heraclitus' religiosity rises to that of the legislator, "the one, the only wise, who wants and does not want to be called Zeus". Against the opinion of his time that considered tyrannical the government of one alone, Heraclitus, inspired by his religiosity, affirms that "obedience to the decree of one alone is also law".

By this path Heraclitus overcomes the previous separation and antithesis between cosmological and religious thought. The previous cosmology offered a vision of being separated from the human; Orphism affirmed the divine character of the soul in the face of the whirlwind of cosmic becoming. But there was

already in cosmology the idea of the world's governing Dike. Heraclitus, unifying the human soul with the cosmic "eternally living fire," also unifies cosmic law with human law, and with the cosmic religion of the "divine nomos" founds in the norm of the world the norm of life of philosophical man.

## VI. Abel Rey

In his book *La jeunesse de la Science grecque* (Paris 1933) A. Rey accepts Tannery's judgment that Heraclitus was essentially a theologian and a moralist; but, in accordance with the particular orientation of his research, he directs his chapter on Heraclite: la physique des contraires to the determination of the contribution to be recognized in the historical development of Greek and Western physics.

In this field Heraclitus, "metaphysician of mobility", appears to him proceeding along the same lines as the Ionian cosmogony, but with an accentuation of becoming, which comes to form the very essence of being; a becoming that is true transformation in which being (fire) is hidden, but which is realized with a constant compensating correlation of its forms. Heraclitus chooses fire for its mobility; he found it already in the cosmogonies of Anaximander and Anaximenes as a product of the processes of differentiation, and he erects it as a principle, as a result of the demand for fundamental unity that he experiences in the face of the very multiplicity of becoming.

However, because of the obvious influence of Rivaud's researches (*Le Probleme du devenir et la notion de la matière dans la philosophie grecque*, Paris

1906), Rey believes that neither in Heraclitus nor in his predecessors does the principle of change correspond to a true concept of substance, which begins only with Eleatism. Fire is the source of change produced by discord and struggle (pólemos), by the action of which the opposites leave the one and return to it. This idea of the opposites was also proper to Pythagorean physics, and anticipated in germ by Anaximander with the separation between hot and cold, and by Anaximenes with the opposite processes of rarefaction and condensation (echoed in Heraclitus, fragment 91 Diels: "it disperses and gathers"),

But a physics of opposites is a physics of qualities, a qualitative explanation of becoming, suggested by the observation that every quality, in changing, evolves towards its opposite. Hence the conclusion that opposites replace each other; that is, the physics of opposites, the affirmation of which is presented in history accompanied by the formation of "tables of oppositions" (Pythagoreans) on the one hand and by the birth of dialectics (Eleatics) on the other hand: all characteristics of the historical moment and of its demand for rational clarity.

The logic of contrariety expresses in scientific form the religious idea of destiny, replacing it by that of a necessary law of becoming, assimilated, as it is by Anaximander, to the social idea of justice. But at the time of Heraclitus, with the Pythagoreans, research on numbers and measures had already been developed;

therefore the new scientific demand makes physics evolve from quality to quantity. This is what appears in the multiple Heraclitean fragments that affirm the idea of measure in the mutual changes between contraries and in all becoming.

Here appears the idea of harmony, which the Pythagoreans had also applied to the relations between sounds. Bernays and Burnet have held that in Heraclitus it means only structure; Campbell added to it the idea of the unity of the opposite tensions manifested in the two halves of the string stretched between ends in the bow and the lyre; Rey thinks that even the musical sense should be added to it, the relationship between contrary sounds, acute and grave, in the octave, which was the first Pythagorean harmony. Besides the fragments where Pythagoras is mentioned, Heraclitus refers to him (he affirms Rey with Burnet) in others, where he speaks of three types of life <sup>1)</sup>, or rejects the idea of a southern hemisphere (Fr. 120), or accepts the term *cosmos*; therefore his idea of harmony must have been assimilated to the Pythagorean one.

In any case, with the law of equilibrium between opposites, qualitative physics tends towards a quantitative form. On the other hand, in Heraclitus the struggle of the opposites leads to their unity and identification. Against Pythagorean dualism, Heraclitus still adheres to a kind of monism. The real is one and multiple at the same time; this is why Plato differentiates Heraclitus from Empedocles, who distinguishes and

alternates the phases of unity and multiplicity. Heraclitus' unity is realized in change by the law of justice and measure; even in imbalances (day-night, summer-winter) there is compensation and justice that bring them back to equilibrium.

This idea of necessary justice (compensation and measure) constitutes for Rey the most important contribution of Heraclitus to physical science. The account of Diogenes Laertius, in spite of its lightness, shows us another important idea: the upward and downward motion, which becomes one of the necessary stages of later physical mechanics, together with the double process of rarefaction and condensation of Anaximenes. Both are inspired by observations (evaporation and condensation of vapor for Anaximenes, movement of the sieve for Heraclitus); and both thus anticipate in germ the later idea of the elements <sup>2</sup>). The double motions are subjected to the law of justice and compensation for which equilibrium is always conserved. Rey, therefore, adheres to Burnet's argument against the attribution of the theory of universal conflagration to Heraclitus, and to the explanation of the great Heraclitean year, given by Burnet himself, as the period necessary to each measure

1) Fr. in Bywater, corresponding to Frs. 104 5- 20 Diels. On the unacceptability of Burnet and Rev's interpretation see my study *Origen del ideal filosófico de la vida*, Rev. de estud. clás., Mendoza 1944.

of fire to accomplish the double path below and above.

Rey concludes that in Heraclitus the application of the idea of measure (metra) and justice (Dike) to the processes of becoming is carried out under the influence of a theological and moral requirement; all Heraclitean physics, therefore, is linked to an ethical-religious end and to the need for a path of spiritual health. Thus Tannery's interpretation of a moralist and theologian Heraclitus would be confirmed by Rey through the examination of his physics.

2) Whose distinction in Aristotle is distributed in two even series, one characterized by upward motion, the other by downward. Rey leaves implicit this observation of an influence of Heraclitus on Aristotelian physics, without expressing it.





## VII. Guido de Ruggiero

In the third edition of *La filosofia greca* (Bari 1934, part I of his *Storia della filosofia*) G. De Ruggiero considers it opportune to separate Heraclitus, creator of the dialectic, from the Milesian whose physical investigations he despised as polymathia that do not teach to reason. De Ruggiero admits in Heraclitus some suggestion of the mysteries, but, against Pfeleiderer and Macchioro, he believes that in constructing his philosophy Heraclitus ended by belittling them.

The opposition between the two interpretations of Heraclitus (philosophy of flux and philosophy of identity) seems fictitious to De Ruggiero: the Heraclitean dialectic seeks the harmony of opposites, permanence in change. A dramatic sense of cosmic becoming inspires it; becoming is the struggle of opposites that live one the death of the other; the struggle proceeds from qualitative opposition, which instead of separating the opposites, pushes them towards and against each other by their unity and community of nature (cf. the unity of day and night, living and dead, etc.). However, according to De Ruggiero, Heraclitus does not affirm an identity, but a unity of opposites; not a mutual conversion, but a common inherence in the same being, from which each one wants to expel the other. That is why unity belongs to that being and not to the opposites. In the dialectic of Heraclitus the principle of

the opposition and struggle of opposites that existed already in Anaximander is developed, with the difference that the struggle, which was injustice for Anaximander, it becomes justice for Heraclitus, who sees in it, beyond the destructive aspect, the constructive one, that is the continuous creation of life and harmony by opposing tensions.

This is the intimate rationality, that is to say the divine Logos that loves to hide itself in nature: if the elimination of the struggle could be realized, it would be death. Thus the divine Logos is the law of war; and God, by welcoming the opposites into himself, expresses their identical nature and the necessity of their mutual struggle. With this character of rational ideal principle the Heraclitean logos asserts itself as a common universal thought which integrates in itself all the individual opposing points of view, justifying them all as unconscious cooperators in the common work. Hence the Heraclitean exhortation to all to rely on the common logos, abandoning the claim to a particular reason of their own <sup>1)</sup>.

On the other hand that ideal logos (observes De Ruggiero) has in Heraclitus its ingenuous aspect of an extremely subtle and mobile body: fire; and cosmology is the history of the cycle of changes of fire, in the series of the elements where Dike has fixed to each one its place and its limits. The physical application of the dialectic is the weak part of the Heraclitean system; but it rises again in the affirmation of the law of

compensation and of the double identical up-down path. With this law De Ruggiero believes incompatible the conflagration, whose affirmation in fragment 6 he considers a later interpolation.

In psychology De Ruggiero considers fundamental the opposition fire-water (= soul-body), and believes that this interpretation of the microcosm has inspired Heraclitus all his doctrine of the macrocosm. The soul, spark of divine fire, arrives in union with it (common logos) to the comprehension of the cosmic law; this would be the meaning of fragment 115, relative to the thought that by itself increases.

As far as the soul is concerned, it seems to De Ruggiero that the spirit of the Heraclitean system would lead to a denial of personal immortality; however, he recognizes that some fragments seem to assume it, but he believes that they can be interpreted even in the sense of a reflux of souls in the universal logos.

Finally, the traditional opposition between eleatic philosophy (immutable being) and Heraclitean philosophy (becoming) seems wrong to De Ruggiero; the real opposition is between two logics: that of identity and the dialectic of opposites.

1) However, this interpretation poses a problem: with such an exhortation, would not Heraclitus be renewing the invocation of the elimination of struggle, which he reproached Homer for?



## VIII. Olof Gigon

O. Gigon's "Heraclitean Investigations" (Untersuchungen zu Heraklit, Leipzig 1935), which is one of the fundamental works on the subject appearing in this century, is presented in opposition to Reinhardt's book. However, the acceptance of the conclusions of the important works of Emil Weerts (Heraklit und die Herakliteer, Berlin 1926; Plato und der Heraklitismus, Ein Beitrag zum Problem der Historie im platonischen Dialog, Philol. Suppl., Leipzig 1931), which want to separate Heraclitus from the πάντα ῥεῖ, indicated by Plato as characteristic of the Herakliteans, creates an even more radical opposition with Spengler's interpretation.

These investigations are characterized by an analytical method, of particular discussion of each fragment replacing the usual synthetic interpretation of the Heraclitean doctrine; however, Gigon attempts to reconstruct the order of grouping of the fragments around five themes: 1) the principle (doctrine of the logos and oppositions), 2) cosmology, 3) physiology (doctrine of life), 4) life in this world and in the hereafter, 5) theology. From this reconstruction we will examine the essential lines, ignoring the particular disputes – philological and historical – about each of the fragments, despite their importance for the understanding of each of the Heraclitean ideas, on the analysis of which any

synthetic interpretation must be based.

1. The fragments concerning the principle comprise two groups, one concerning the doctrine of logos, the other that of oppositions (polemos and harmony).

The first group, in Gigon's opinion, should form the proem of the Heraclitean work, to which should belong the fragments that in Diels have the numbers 1, 2, 17, 34, 50, 72, 89, 108, 113 (whose duplicate would be 116) and 114, with which may also be related 40 and 104. Fragment 1, located at the beginning of the work according to the testimonies of Aristotle and Sextus Empiricus, affirms the eternal truth of the logos, that is to say (Gigon interprets) of the speech of Heraclitus that contains precisely the eternal truth unknown to men, although they are always under the rule of those, in their own words and actions.

The logos that dominates everything is therefore the common, the divine law that nourishes all human ones, whose idea would be suggested by the initiated ethnographic science (Hecateo) and by the activity of the legislators, which led to the distinction between the variable written laws and the eternal unwritten (ἀγραφὸς νόμος) and common (κοινός).

That is why Heraclitus says that one must follow what is common and not believe oneself to be in possession of a particular intelligence (Fr. 2); thus logos is manifested as law and essence of the world, and nomos as the criterion of right thinking, coinciding in an

idea of the divine that comes from Xenophanes. Heraclitus, in the face of the mass of fools, presents himself as an enlightened educator, in struggle (as did Xenophanes) with Homer, Hesiod, etc. Men, participating in the common logos, could be wise (Fr. 113), but generally do not understand it (Fr. 2) and remain strangers to it (Fr. 72), without acquiring intelligence either by the acquisition of much knowledge (Fr. 40).

To this proem, a promise of revelation whose prophetic tone imitates the Delphic oracle and the Sibyl (Frs. 92 and 93) was to follow the explanation of the universal law (logos) by means of the doctrine of the *pólemos*. The material principle (*αρχή*) of the Milesians is replaced by a logical principle: the union of opposites (Fr. 10) which means a permutation between unity and totality. Thus the divergent converges towards itself, in a harmony (= conjunction: Gigon excludes all musical sense) by opposite tensions like those of the bow and the lyre (Fr. 51), where opposition becomes unity (Fr. 8).

The doctrine of opposites is evidenced by examples used as proofs (cf. for the identity of good and evil in Fr. 58 the example of the physicians who cut and burn the diseased parts); but the oppositions present themselves in two distinct forms, one more evident is the succession or permutation of the opposites, another that more needs proof is the unity or coincidence of them. To this difference alludes, according to Gigon, fragment 54: "the hidden harmony (= conjunction) is stronger than the

visible one"; which would mean that the identity of the opposites has more power than the succession of them (example: day and night). But the occult demands proof; and in experiencing the demand for proof, Heraclitus differs from the Milesians.

And it differs even in the approach to oppositions. In the previous naturalists (then even in the Parmenidean doxa) the unique principle bifurcated into two material opposites, by means of which the cosmos was constructed; in Heraclitus the opposites are not objects but properties, considering the idea of opposition itself, conceived theoretically, in a purely formal antithetics.

Against Reinhardt, who argued that Heraclitus proceeded from Parmenides, Gigon objects that there is nothing in him of Parmenidean terminology, nor can it be believed that he attempted to overcome the Eleatic opposition between being and becoming, by making becoming a presupposition of being, because he never considers as a problem their relation of mutual permutation. But neither does Parmenides present the Heraclitean terminology, so that an opposition to Heraclitus or an intention to perfect his logical abstraction should be excluded. An antecedent of the Heraclitean oppositions can be sought in the Pythagoreans and Alcmeon, but Gigon differentiates them because they are dualisms referring to medicine, whose even series are in static equilibrium physiognomy, while in Heraclitus there is conjunction (harmony) in motion.



Gigon further denies – against Bernays, Frederich, Biwater, Diels, Burnet, etc. – the possibility of using in the reconstruction of the Heraclitean theory of opposites the Hippocratic *On the Diet* (which he considers linked with sophistry, and only stylistically influenced by Heraclitus); Philo, *Quid rer. divin. her.* 207 ff; Sextus, *Pyrrh. Hypot.* I, 53 ff; and the pseudo-Aristotelian *De mundo* 5.

2. Let us turn to cosmology. It affirms the mutual permutation between one and all (Fr. 10); but, together with the succession of opposites, it also affirms their unity, as a requirement of the universal logos, not the author's personal opinion (Fr. 50). It is not, however, a question of mystical unity, but of the application of the doctrine of opposites in cosmology (used, however, by later mysticism in formulas attributed to Linus, Museo, Orphics, etc.). To this unity can be related the identity of the ways above and below (fragment 60), anticipated in part by Anaximander and Xenophanes; fragment 90 presents it in concrete form as an exchange between fire and things, paralleled with that between gold and commodities (in both cases: one and many).

Here the much discussed problem of conflagration arises. The transfer of each contrary into the other (Fr. 88), applied to the opposition of world-fire (multiplicity-unity), there is, according to Giren, conflagration as real cyclical phase, as the even series of fragments 65 and 67 demand the realization of each of their terms. Now, the oppositions of hunger-satiety (Fr. 65), war and peace (Fr.

67) are identified with that of cosmic distinction and absorption in the unity of fire; therefore, the real (periodic) existence of the one demands that of the other. Thus also fragment 30: "this cosmos is eternally living fire, etc. (which may have been at the beginning of the cosmology) has to be related to the doctrine of opposites.

Cosmos in Heraclitus and other pre-Socratics always means the systematic order of things opposed to chaotic dispersion; Heraclitus (as well as Xenophanes) affirms, against Anaximander, the uniqueness of this order ("the same for all things"), and – probably against Hesiod (*Theogony* 74ff.) – its eternity ("no one created it, God or man, but it always was and will be"); but adds its eternal identity with its opposite: identity of the universe (multiplicity) with fire (unity). Fragment 7 perhaps wants to explain this coincidence with the hypothesis of a conversion of all things into smoke, in whose unity the nose would distinguish multiplicity.

There was already in the cosmos of the Milesians fire (celestial) as a part against the others (air, sea, earth), but Heraclitus makes it the whole. The deniers of the conflagration, on the other hand, must always limit it to a part of the cosmos, in equilibrium with the rest, while Heraclitus affirms it as a totality, eternal like the cosmos, always living because it is the source of all life, and always in motion, like the Milesian ἀρχή. It cannot be identified with anything particular, neither the soul, nor the celestial fire, nor the ray (Fr. 64), nor the logos or "the wise" (Fr. 32) or the god (Fr. 67). It is unified totality and

as such identifies itself with its opposite, the totality unfolded in the cosmos; the paradox of identification must be resolved in the alternating succession of the opposites (Fr. 65), where each lives the death of the other (Frs. 36, 76). That is why the measures of kindling and extinguishing of the ever-living fire (Fr. 30) must be understood in a temporal sense and not spatial: as a cycle or alternation of two contrary moments, which then become four with Empedocles.

However, fragment 31 of Heraclitus distinguishes degrees in the realization of the changes of fire: 1) sea, 2) earth and prester, 3) return to the sea. The scheme could also be valid for the continuous process of particular changes, but fragment 31 must be cosmogonic; probably inspired by Xenophanes in the idea of the primordial sea from which the earth is born and into which it sinks again. The *prestér* should be interpreted in the sense of the exhalations that the Heraclitean doxography presents as the source and nourishment of the stars; the whole fragment, therefore, delineates the process of inner development of the cosmos, from sea to land and stars and vice versa. However, Aetius (A 5 Diels) and Lucretius I, fragment 82 ff. give a different scheme.

In what relation to cosmogony are the notices concerning generation and the great year in Heraclitus (A 13, S and 19 Diels)? Reinhardt wanted to interpret them as referring to eschatology; but Heraclitus, by making use, in his calculation, of the number of days of the astronomical year, showed that he was standing on

other ground than eschatological; even if the polemic of Plutarch, against the interpretation of the partisans of the conflagration, shows that Heraclitus had not expressed himself clearly. Gigon has opportune recourse to the ideas of the epoch relative to time. In Pherecydes and Anaximander Time is the regulator of vicissitudes, and Heraclitus identifies it with destiny; moreover Scythinus (in imitation of Heraclitus, C 3) declares it "the first and last who has everything in himself" and returns to himself by the opposite way.

Therefore, it can be thought of a law of a double way, which would be realized in the generation for men and in the great year for the cosmos; the great year should therefore have two parts, fire and cosmos. A confirmation of the conflagration can also be found in the eschatological fragment 66 ("the coming fire will judge and condemn all things").

With his eyes fixed on his doctrine of opposites, Heraclitus is not interested in the Milesian problem of the process of transformation of the elements; he is satisfied with speaking of the disjunction and mutual generation of opposites. In problems such as that of the form of the earth he shows an empiricism that links him with Xenophanes; and in astronomy he also accepts the new sun every day of Xenophanes (Fr. 6), which was framed in his theory of the fire that is kindled and extinguished in measured periods (Fr. 30) and perhaps suggested it. The same demand for measures for the sun is expressed in fragment 94 with the threat of

intervention by Dike's ministering Erinyes, which Gigon interprets as an allusion to eclipses, of which Thales, Archilochus and Xenophanes had been interested; moreover Hesiod had placed Dike on the threshold of the house of the day.

By declaring the sun the only source of light (Fr. 99) Heraclitus explained the difference between sun and moon with differences between pure and impure medium, light and dark exhalations; but he corrects the Xenophanean theory of the stars (burning clouds, which did not explain the stability of their form), by the mythical representation of the cups; and consequently attributes to the sun the size of a foot (Fr. 3), repudiating in his empiricism the much larger measurements of the naturalists. The theory of the exhalations as food for the stars was also Milesian and Xenophanean heritage; but proper to Heraclitus is the distinction of them into light and dark to explain the oppositions of day and night, summer and winter; without being considered (with Reinhardt) as coinciding with the opposition of the ways above and below.

3. The reconstruction of cosmology is followed by that of physiology (doctrine of life). Fragment 88 affirms the identity of the opposites – living and dead, awake and asleep, young and old – as a result of their reciprocal permutation. With this Gigon links fragment 84: "changing rests". The permutation between life and death (confirmed in the Frs. that speak of opposites that live one the death of the other) appears again in Meliso,

in Empedocles, in the Phaedo, etc. Its parallel with the series wakefulness-sleep was traditional; as for the mutual change between young and old, Gigon links it with the other between yesterday and tomorrow in Scythinus (imitation of Heraclitus), with the Heraclitean bipartition of generation, and with the flow of human ages in Epicarmo, fragment 2 Diels (170 Kaibel), considered by Bernays, Zeller, etc., an imitation of Heraclitus. However, Rostagni (*Il verbo di Pitagora*) links him with Pythagoras, with whom Gigon relates only the permutation between life and death.

This relationship between life and death, wakefulness and sleep, returns in the obscure and much discussed fragment 26, which Gigon interprets: "sleeping in the darkness of the night, man lights up an inner light in reverie, and even while living he borders with the dead, just as the waking with the sleeping". However, it can be understood that the living borders with the dead in the world of the dream (world of ghosts and the dead), but how can he in the waking border with the world of the dream? Gigon proposes a division of the fragment: the 2a part with the 88 already examined, the 1a with the 89 which says that the awakened have a unique common world.

Fragment 26 can be related to 21: "what we see while awake is death, what we see while asleep is dream". Why is the visible world death? Answer (according to Gigon) fragment 76: "the fire lives the death of the earth, the air that of the fire, the water that of the air, the earth

that of the water". Quoted by reliable witnesses, this fragment cannot be a stoic forgery; and it presents 4 elements instead of the 3 of fragments 31 and 36, even fragment 126 presents four qualities. The number 4 was already in the Pythagorean tetraktys, and in addition here is presented the opposition of life-death, and the cycle that returns to the starting point, according to the idea expressed in fragment 103. With this opposition and identity of life and death Gigon links fragment 123: "nature loves to hide itself", that is, it is a becoming that is life and death together without our seeing it.

This brings us to fragment 36: "for souls it is death to become water, for water to become earth, but from earth water is born and from water the soul". The doxography, on traces of Aristotle (A 15 Diels), speaks of a cosmic soul, but the plural evidently refers to human souls. The idea of Anaximander is repeated: "from where things are born, in this they dissolve"; linked with the identity of the ways above and below (Fr. 60) and with the Xenophanesque theory (Milesian inheritance) that man is made of earth and water. From water the soul is exhaled (fragment 12), paralleled with the water flow, which in the human body is represented by the blood, source of the power of thought for Empedocles and already in the Odyssey food for the souls. The meaning of fragment 12 according to Gigon is the following: the soul remains one and identical through the flow of the exhalations that nourish it, as a river through the flow of the waters. Thus the soul can increase its measure

(fragment 115) just as the body in its development; and in feeding itself with exhalations it has its parallelism with the sun.

By this flow – of the soul and of the river – we go down and we do not go down in the same river, say fragments 49a and 91. Gigon (with others) repudiates as inauthentic the 49a and considers it with Weerth belonging to the later Heraclites and not to Heraclitus the universal flux (πάντα ῥεῖ), which would make all philosophical dogmatics impossible.

Other fragments belong to Heraclitean psychology. Fragment 117 (the soul is weakened by becoming wet in drunkenness), fragment 77 (becoming wet is pleasure and death for the soul), and fragment 118 (the dry soul is the best and wisest). Fragment 119 introduces us to the wisdom of life: "what decides the destiny of man is his nature". So perhaps Heraclitus has investigated himself (fragment 101), in accordance with the Delphic motto. But the limit of the soul is unreachable (fragment 45).

An ethical thought is expressed in fragment 111: the disease makes soft the health, the hunger the satiety, the fatigue the rest; for that reason the fragment does not say that to have what they wish is not the best thing for the men, and 85 recognizes difficult to fight with the desire; and 46 and 43 repudiate presumption and insolence.

For the Heraclitean psychology the doxography offers some supplementary information. Theophrastus



(de sensu) places Heraclitus among those who make sensation proceed from contrast; Sextus (following Posidonius) attributes to him an opposition between sensation and reason, which does not seem in accordance with fragments 55, 107 and 101a; but he adds the comparison between the soul that comes in contact with the world and the coals approaching the fire that are ignited; Tertullian attributes to him an affirmation of the unity of the soul, diffused throughout the body such as the breath in all the cavities of the *zampona*. Gigon overlooks the fragment 67a, which parallels the soul with the spider ready to run in every part of the web that receives shock or offense.

4. With this we come to the chapter on life in this world and in the hereafter. In the aggregation of the problems of life to those of the cosmos Gigon sees the Xenophanean influence on Heraclitus; however he still remembers Pythagoras. With fragment 80 ("it is necessary to know that war is common, and justice is struggle, and everything happens in struggle and as it suits") Heraclitus wants to correct Homer and Hesiod: Hesiod (*Works*, 276 ff.) who to the law of struggle for animals opposed that of Dike for men; Homer, who, in spite of declaring Mars (god of war) common (*Il.* XVIII, 309), voted for the disappearance of fighting (*ibid.*, 107). Archilochus had repeated (*Fr.* 38 Diehl) the Homeric motto: Mars is common; and in fragment 42 Heraclitus, by assailing him together with Homer, could be proof that he too had united the invective against war to the

recognition of its universality.

With this antihomeric polemic, which thus inspires a capital position of Heraclitus, Gigon believes that fragment 125 is related (the compound concoction decomposes if it is not shaken). More likely a linkage for fragment 53, where pólemos, father of all things, substitutes the Homeric Zeus, father of all. "All things" are here those of the human world, where pólemos determines the distinctions of free and slaves, men and gods (namely, the heroes deified by death in battle). One can place here fragment 29 which opposes the best (áristoi), who prefer an eternal glory, to the majority who gorge themselves like cattle; confirmed by fragment 49 (repeated by Democritus): "one to me is worth ten thousand if he is optimal"; and by fragments 4, 13 and 37 which repudiate animal pleasures. Also fragment 20 (referring to those who by being born want to live and have mortal lots) belongs to the polemic against bestial life and to the exaltation of war; and so do fragments 24 and 25 (gods and men honor those killed by Mars; the greater deaths achieve greater lots); very doubtful on the other hand the same belonging of fragment 52 (Aion is a child who plays with dice) proposed by Gigon.

Fragments 20, 24 and 25 lead us to the consideration of the afterlife, referred to in the much discussed fragment 62 ("immortals-mortals, mortals-immortals, etc."), where is engraved, as in fragment 36, the opposition and permutation between life-death, which signifies their unity. Gigon identifies mortals with men,

immortals with gods, i.e., heroes deified by their death in battle, which fragment 63 turns into custodians of the living and the dead (cf. Hesiod, *Works*, 123). The heroes, therefore, do not live in the hereafter, but on earth; and it is confirmed by the anecdote referred to by Aristotle, of Heraclitus who says to his visitors: "there are gods even here". Present everywhere, but invisible, contrary to what the vulgar cult assumes (Fr. 5), the heroes of Heraclitus, according to Gigon, result from a combination of the Pythagorean theory of the transmigrations of the soul with representations from the epic.

Gigon considers even fragment 28 to be eschatological: "the most reputable knows only opinions; and yet Dike will punish the makers and witnesses of lies"; where Heraclitus would define with modesty his sincere effort towards the unattainable truth, and would threaten the adversaries (those of fragment 40) with the future punishment of Dike. Fragment 27 (things await men after death that they do not imagine) would extend the threat to all; and the nature of the punishment would be explained in fragment 66, with the fire that will seize everything.

Despite Reinhardt's objections, Gigon recognizes this fragment as a genuine quotation and identifies this fire with the anonymous being of fragment 16 (how to hide from what never has a sunset?).

Gigon believes that Heraclitus did not relate this

eschatology with its cosmology, nor has the problem been raised of whether the immortals survive in the conflagration; there would be between physical and human-religious problems a separation, as in the two Empedoclean poems. However, Gigon does not consider that by introducing the conflagration into the eschatology, Heraclitus bridges the gap between the two shores.

The punishment of fire would threaten even the followers of Bacchic cults (Fr. 14).

The whole Heraclitean polemic against superstitious or impious cults (Fr. 5 and 15) shows a demand for religious enlightenment, a Xenophanean inheritance, linked to the anti-Homeric polemic common to both. The same must be said of the polemics against Hesiod for his opposition of lucky and unlucky days (Fr. 106), and against the funeral pomp (fragment 96: "the corpses must be thrown more than dung"; where Gigon excludes all Orphic inspiration). By this radical illuminism Heraclitus could be related to Cynicism in the epigrams quoted by Diogenes Laertius, and in the legend of the dogs that devoured him.

5. Finally, there remains theology, where the influence of Xenophanes is most evident.

Fragment 78 opposes god to man: divine nature has intelligence, human nature does not. Man (adds Fr. 79) is a rat in comparison with god; his opinions (Fr. 70) are child's play; for wisdom and beauty in comparison with

god he is like the monkey in comparison with man (Frs. 82 and 83). Thus is concretized the Xenophanean affirmation of incomparability between god and mortals. Fragment 102, which to the human dualism of just and unjust things opposes the justice of everything for god, would refer, according to Gigon, to war: misfortune for man, Dike for god.

Fragment 32 presents god as the one, the wise one, who lets himself and does not let himself be called Zeus. "Wise" (explains Fr. 41) is the one who understands and governs all; but referred to god (Fr. 108) must be recognized as transcendent and separate from all things. In these affirmations, unity and transcendence come from Xenophanes, but the idea of σοφός (wisdom) or λόγος, logical law of the world, is added. That he can and cannot be called Zeus (supreme god), is not related, according to Gigon, to the supposed etymology coming from zen (to live), but to the alterations introduced by the myth in the idea of god: Heraclitus, like Xenophanes, wants to restore to him his spiritual character. But the first to apply to God the attribute of σοφός had been (according to Heraclides Ponticus) Pythagoras; and even if he, Epicarmo repeats it, the problem of his origin must be solved according to Gigon in favor of Pythagoras, well known in Magna Graecia (where Heraclitus was unknown). It would be he, therefore, the precursor of Heraclitus on this point, even if Heraclitus denies (Fr. (108) that anyone had already recognized the transcendence of σοφός. For a dependence of Epicarmus

on Heraclitus, Gigon finds no evidence either in Epicarmean fragments 1 and 2.

To the transcendent divine σοφός some critics also refer fragment 41, whose text presents difficulties. Gigon refers it to human wisdom, interpreting: "the only wise thing is to know how everything is governed even in the particulars". It would be an echo of the only sophia of Xenophanes fragment 2, but transforming his personal boast into a general philosophical demand; logical demand of the explanation of the how (law of the opposites) substituted to the Milesian explanation of the what (material principle).

This idea of divine ruling or steering is applied in fragment 64 to the lightning, which is not the universal fire (essence and not rudder of the cosmos), nor god himself, but the weapon of Zeus, by whose blows beings are driven, like cattle to the pasture by the whip (Fr. 11). However, this idea of lightning was to be linked with that of fire (Fr. 66).

Fragment 67 presents the predicates of god in a series of pairs of opposites, typically Heraclitean (cf. fragments 57, 65, etc.). God enters the world of opposites and receives each time the name of one of them, just as fire receives each time the name of each incense burned in it. The contrary forms of divine appearance (particular gods) are identified, such as Dionysos and Hades (Fr. 15), gods of life and death; Heraclitus always presents oppositions of states and values, not distinctions of parts

of the cosmos.

For Heraclitean theology Gigon rejects the doxographic identification between god and fire, as well as any analogous identification applied to the Milesians. Heraclitus, in his view, is linked to Xenophanes, whose theology (in the silloi) affirmed the uniqueness of God, his eternity, his form distinct from the human (possibly, by Pythagorean influence, it will have been the ideal spherical form), his spirituality and immobility. This theology, documented by the fragments, has nothing to do with the antinomies attributed to Xenophanes by the De Melisso Xenophane Gorgia, a later elaboration, who wants to link him with Eleatism. On the contrary, Gigon does not consider Xenophanes as the head of Eleatism, but as a precursor of Heraclitus, because of his empiricism, his struggle against myth, his aim of education and not erudition, in a word his illuminism. Nevertheless, the theology of Xenophanes had a great influence on later illuminism, while Heraclitus, with his doctrine of opposites, has remained in tradition as the dark one, as opposed to the sun of the Eleatics.





## IX. Guido Calogero

Against Reinhardt, G. Calogero (Eraclito, in "Giornale critico della filosofia italiana", 1936) affirms the priority of Heraclitus over Parmenides, not only as more probable historically and evidenced by allusions of the Parmenidean poem, but as useful to the understanding of Heraclitus himself, who shows, in a more typical way than Parmenides, the characteristic of the archaic mentality, constituted by the indistinction of the ontological, logical and linguistic spheres.

This archaic characteristic, for whose documentation Calogero relies on the researches of Ernst Cassirer, Ernst Hoffmann, J. Stenzel and others, clarifies much of the aforementioned Heraclitean obscurity, and appears already in the solemn opening fragment of the work (Fr. 1) which speaks of the logos. This is a speech, because it is said that men understand it neither before nor after hearing it; and it is Heraclitus' own speech (thus); but it is declared to be true and it is affirmed that according to it everything happens and men speak and act. So the logos is word, truth and reality at the same time, a confluence of ontological, logical and linguistic values; and that is why fragment 2 declares it common and fragment 50 asks that it be heard as an expression of truth and not of a personal opinion.

From this triple sense (confirmed by Fr. 72) it seems

to be distinguished that of the word *logos* in fragments 45 and 115, where however the *logos* of the soul signifies the essence of its nature, which constitutes the notion of it and is expressed in the name; just as in fragment 39 the *logos* of Bias signifies its fame and its worth at the same time; that is, always a union of the ontological and logical aspect with the linguistic one, the latter being presented in isolation in fragments 87 and 108.

The aforementioned indistinction does not mean an explicit theoretical affirmation of identity, but is an inheritance of the archaic mentality, which is also manifested in the parallelism between the verbal expression of truth and its real manifestation, implicit in Heraclitus' "puns", which are in reality attempts at etymology inspired by the conviction to give the etymon (= truthful) sense of the word. Thus fragment 114 wants to confirm the value of *logos* by saying that he who wants to speak intelligently ( $\xi\upsilon\nu$ - $\nu\omega$ ) must base himself on the common ( $\xi\upsilon\nu\omega$ ); thus fragment 48 (imitated in form by the Hippocratic *On the Diet*. 21) says that the bow ( $\beta\iota\omicron\varsigma$ ) has the name of life ( $\beta\iota\omicron\varsigma$ ) and the action of death, to document the coincidence of the opposites. In both cases the word documents the truth of the idea and the reality of the fact: there is always a confluence and reciprocal communication of the three spheres, linguistic, logical and ontological, whose conviction we not only see reflected in the Platonic *Cratylus*, but manifested in the same time of Heraclitus in Aeschylus, and before and after in others (cf. the examples cited by

Calogero of the Aeschylean Agamemnon, of Homer, Hesiod, the Orphics, etc.).

According to Calogero, this equation between the enunciated reality-truth and the contemplated one has influenced the formation and formulation of the Heraclitean conception. Just as he expresses the real concordance of the contraries (Fr. 51) with the same verb  $\delta\mu\omicron\lambda\omicron\gamma\epsilon\iota\nu$  used by the verbal declaration of the consent of men (Fr. 50), in the same way the law of the world (logos) affirmed by him can be called dialectical. Dialectic in the sense of the reciprocal linkage of opposite values, which is sometimes a linkage between knowledge of values and existence of disvalues (Fr. 23: men would not know the name of Dike if there were no real injustices; which affirms a relationship between reality, knowledge and word); but more often it is real permutation of opposites, which live one the death of the other in a becoming son of struggle (Frs. 8, 36, 53, 62, 76, 77, 80, 126).

In the Heraclitean vision of the river of things, what is essential is not the flow in which the later disciples fixed their attention, but conflict and opposition: *coincidentia oppositorum*, which presents itself in the most diverse forms, either of reciprocal transformation (Fr. 88), or of unity of the real that is divided into opposites (Fr. 67), or of identification between unity and multiplicity (Fr. 50; cf. 30, 41, 57). On the one hand the relation of opposites tends towards opposition, on the other towards identity: harmony (structure) by opposing

tensions (Frs. 8, 51, 54). To this reciprocal conditioning of the opposites is added the aspect of relativity: relativity to human or animal subjects (Frs. 4, 9, 13, 37), relativity to the terms of comparison (Frs. 79, 82), objective and subjective relativity at the same time (Fr. 61), relativity to the antecedent situation (Fr. 111), relativity proper to human antitheses that are unified in a universal value for God (Fr. 102).

The general intuition of necessity which pushes each particular aspect of the world to overcome itself in opposition thus manifests itself in a variety of forms, the progenitors of later dialectical and relativistic conceptions, as Hegel had to recognize; but Heraclitus does not distinguish these forms, but gathers them all together, as proofs of the truth of his logos. Moreover, he deduces the law from an indiscriminate observation of things and words, as in fragment 48, where the opposition and identity of death and life results from the comparison between the name and the work of the bow. An analogous indistinction between the verbal plane and the real plane is recognized by Calogero in fragment 60: one and the same path up and down. He refers to the cosmic cyclical process, but takes as a symbol the identity of the way up with the way down. The royal road is unique, but its consideration and denomination as ascent and descent represent a mental and verbal antithesis (and coincidence) that Heraclitus makes real; probably by suggestion of experiences related to his homeland, in whose toponomastics some slope will have

had the name of ascent, another of descent. Heraclitus notes that in the opposition of names there is an identity of the thing.

The later Heraclitans, in order to vindicate the doctrine of the master against Eleatism, have emphasized the idea of flow (becoming), while Heraclitus emphasized the idea of opposition; in this case the river, which is always the same, is always different, because new waters are always flowing in it, so that it is not possible to enter it twice. Seneca, in his translation of fragment 49a adds: the name of the river remains the same, but the water passes. The explanation must have been Heraclitean; the identity of the river is in the name, but for Heraclitus verbal identity means real identity; and when later that Heraclitean unity between word and truth is broken with Cratylus, the consequence is the renunciation of the word, substituted by gestures, which seem more coherent with the flow. Heraclitus anticipated in part this separation between thing and word when he said (Fr. 32) that the only universal Wisdom admits and does not admit the name of Zeus; which means, according to Calogero (in agreement with the Platonic Cratylus and contra other interpretations), that which can and cannot be called Life, because it is Life-Death, according to the binomial of opposites that expresses, better than any other, the eternal cosmic struggle.

Likewise in fragment 67 the God, unity of every even series of opposites, transforms himself into them just as

fire takes its name from every incense burned in it. "Taking name" is equivalent to "becoming"; instead of the Parmenidean opposition between names and reality (Fr. 8, verses 38 and 53), Heraclitus affirms their mutual identification; and thus verbal antitheses are for him real antitheses. The idea of antithesis also explains the fragments of criticism of sensible perceptions (55, 101 a, 107) which grasp each time only one of the opposites.

These antitheses are presented in Heraclitus in two forms: in binomials of opposite terms (day-night, summer-winter, war-peace, hunger-satiety) and in binomials of terms that are one the negation of the other (divergent-convergent, discordant-harmonious) and sometimes express it in its own form of negation, with a privative a- or not- (immortals-mortals, totality-not-totality). Later, especially with Aristotle, the oppositions of otherness, contrariety, contradiction will be distinguished. But the word contradiction (ἀντίφασις) still shows that the opposition was born on the verbal terrain which Heraclitus did not yet distinguish from the logical-ontological terrain. This is why Heraclitus presents himself as a Sibylline asserter-denier, prophet of yes and no, who loves contradictory expressions, such as: "he who does not expect will not find the unexpected", he who hears and does not understand is "present absent". In the anecdote of Homer confused by the children who were killing lice ("what we find and take we do not have, what we neither take nor find we have"), the enigmatic discourse, imitated later by

Luciano in his *Sale of Lives*, means the equivalence of yes and no, which in fragment 49a is formulated as coincidence of being and not being.

But it is not yet a question of absolute being, whose idea is affirmed only with Parmenides, but of our being in relation to the river, that is, in the sense of being. "In the same river we go down and we do not go down twice; we are and we are not." In such a sense the opposition being-not being must have been frequently repeated in Heraclitus, since it is found repeatedly in the imitation of the Hippocratic *On the Diet*, and Aristotle himself recalls that in the opinion of many Heraclitus would have attributed to the same thing being and not being. From that being-not-being (εἶναι καὶ μὴ εἶναι) expressed (λεγεῖν) by Heraclitus is then engendered by reaction (says Calogero) "the being" (εἶν) of Parmenides, which is also word-truth-reality together.





## X. Aldo Testa

Another point of view applies in his interpretation of Heraclitus is A. Testa, *I presocratici*, Rome 1938 (chap. V: *Eraclito e la discorsivita dei essere*, Rome 1938).

In the discussion of the problem of reality, Heraclitus, according to Testa, "in probable relation to Eleatism" – that is, with the position of Xenophanes, which for Testa already contains the whole of Eleatism – is certainly more concerned with the flow of things than with the unity of substance. But the traditional interpretation, by its exclusive insistence on the flux and identity of opposites, has altered the genuine Heraclitean thought, in which the unity of being also plays its essential role.

About contraries Heraclitus affirms several different things, namely: 1) the generation of things by the union of contraries (Frs. 8, 80, 53); 2) the permutation-of contraries coincident with flux (Frs. 26, 91, 49); 3) the identity of contraries (Fr. 88); 4) the relativity of them; and 5) the reciprocal conditioning of opposite values (Fr. 111). For Heraclitus one cannot speak of identity of opposites in the Hegelian sense (in which becoming is produced by the intimate contradiction of all determination), but insofar as Heraclitus considers becoming as a succession of different states, in whose particularities, mutually compared, change appears; but

the multiplicity on which Heraclitus' gaze is fixed, in considering the distinction, is a multiplicity that unfolds in unity (Frs. 10 and 50). Heraclitus insists on change, but what changes is not a particular finite real, *a*, that becomes not-*a*, but the being that comprises *a* and not-*a* in itself, as universal that contains the particulars and results from them: "from all the one, and from the one all".

Multiplicity demands a unity; because of this underlying unity the reality of each particular determination does not exclude, in its realization, that of each other. The Heraclitean one coincides with the Eleatic whole being; however, from both arises an immediate antinomy: unity against multiplicity (Eleatics), multiplicity against unity (Heraclitus). The Eleatics resolve this antinomy with the identity of being, which is reduction to unity; Heraclitus, with the permutation of beings, which is the development of unity in multiplicity.

But the Heraclitean permutation, according to Testa, is not a transformation of an exclusive particular reality (*a*) into another equally exclusive definite one (*b*), which would be inexplicable and absurd, but a transition from one to another form carried out by the underlying universal. Indeed, every reality, which is a determination of the multiple one, implies the universality of the latter in its own particularity, and therefore can be changed into another determination contained in the same multiple one. In other words,

when Heraclitus affirms the identity of things among which there is the possibility of permutation (and there is among all), he does not affirm it in relation to the particularity of each, but in relation to the universality of the one that is in each and becomes all. "They are the same thing living and dead, awake and asleep, young and old, because these things in changing are those, and those inversely are these" (Fr. 88), would mean that in realizing each particular aspect, reality does not coincide with it but with all that can be, that is, with all the aspects that can be realized as determinations of the universal One, which is either this one, or that one.

Of course, this interpretation of Heraclitus sees in him a development of the principle of the permutation and identity of opposites, expressed many centuries later by G. Bruno, when he affirms that each particular thing is the presence of the "substance in the part", which has in itself the "essence of the universe", and therefore contains in its own unity all the forms, whose complicatio always demands the explicatio, or successive unfolding of all the forms <sup>1</sup>). But even recognizing the connection of this theory with Heraclitism, the whole plant cannot be recognized as already developed in the germ.

Notwithstanding Testa's effort to demonstrate his interpretative thesis, when Heraclitus says (Fr. 36) that "for souls it is death to become water, for water to become earth; but from the earth water is born and from water the soul", he effectively affirms the death of each

for the birth of the other; and the living of each thing the death of another (fragments 76, 77, 62) is not yet, for him, living the immortal universality of that which dies only in its particularity, according to Testa's explanation. Such an explanation can be considered implicit as a problem or requirement in the Heraclitean doctrine; but what is implicit becomes explicit and express only by means of a progressive development in the approach to problems that is laboriously elaborated throughout the historical course of philosophy.

1) I refer on this point to my essay on G. Primo in my book *Tres filósofos del renacimiento*, ed. Losada, Buenos Aires, 1947.

## XI. Partial studies: Hermann Fraenkel

To the synthetic examination of the most characteristic interpretations of Heraclitean thought as a whole, published in the last half century, we could add a review of the most important studies, published in the same period, on particular points and aspects of the doctrine of the Dark One of Ephesus. We have had the opportunity to recall, for example, the studies of Emilio Weerts (*Heraklit und die Herakliteer* and *Plato und der Heraklitismus*) aimed at distinguishing the doctrine of Heraclitus from the later alteration that reduced it to the exclusive theory of flux. Let us recall, moreover, among others, the discussion of many fragments carried out by W. A. Heidel <sup>1)</sup>; the many studies of E. Loew on the problem of reality in Heraclitus, on the information about him in Sextus, on his theory of knowledge, his discovery of the empirical path of investigation, the polemic of Parmenides against him, the relation of his system with Protagoras according to Sextus Empiricus, the relation between life and logic in the Heraclitean doctrine <sup>2)</sup>; those of H. Gomperz, son of Theodore, on the original order of succession of the first fragments of Heraclitus and on the doctrine of unity as a starting point for the understanding of Heraclitus <sup>3)</sup>; those of W. Capelle on the theory of the soul as exhalation and on the first Heraclitean fragment <sup>4)</sup>; of A. Busse on the meaning of the word *logos* in Heraclitus <sup>5)</sup>; of Bruno

Snell on the Heraclitean language <sup>6)</sup>, etc.), and so on.

We will now dwell only on two of Hermann Fraenkel's Heraclitean studies, one concerning Heraclitean theology, the other a form of thought favored by Heraclitus.

The first (Heraclitus on God and the phenomenal World, Trans. of Amer. Philol. Assoc., 1938) refers to fragment 67. Fraenkel, claiming against doxography the predominance of metaphysical interest in the pre-Socratics, considers important that fragment which refers precisely to the metaphysical problem of the relation between absolute and relative, One and many, God and the phenomenal world. The assumptions of the fragment are: 1. the theory that all existence or generation proceeds from a mutual action of opposites;

1) W. A. Heidel, On certain fragment of the presocratics, in Proc. Amer. Acad. of Arts a. Sciences, 1913. Sciences, 1913 (see on Heraclitus pp. 695-716).

2) E. Loew. Das heraklitische Wirklichkeitsproblem, Wien 1914; Die Bedeutung des Berichtes bei Sextus, etc., Wien. Stud. 1917; Ein Beitrag zum heraklitisch-parmenideischen Erkenntnisprobeni, Arch. f. Gesch. d. Philos. 1917; Heraklit der Entdecker des empirisch-physikalischen Weges des Forschung, Rhein. Mus. 1930; Das Lehrgedichte. des Pennendes eine Kampfschrift gegen die Lehre Heraklits, Rhein. Mus. 1930; Das heraklitisch-protagoreische System nach der Darstellung des Sextus Empiricus, Philol. Wochenschr. 1931; Das Verhältnis von Leben und Logik bei Heraklit, Wien. Stud. 1933.

2. the reciprocal identity of the opposites in each even series. To these two theories the fragment adds as a third the reciprocal coincidence of the various even series in the One, God.

According to the integration accepted by Diels for the Lagunian text, God, confluence of all oppositions, (day and night, winter and summer, war and peace, satiety and hunger, etc.), in whose multiplicity its unity is manifested, would be compared to fire, which, when mixed with incense, is named each time according to their taste. Fraenkel observes that the word interpreted by Diels in the sense of incenses (which neither mix with fire nor give it its name) means also perfumes; and these were indeed mixed by the Greeks with oil and gave their name to the resulting ointment, which was offered to the gods and was considered to give vigor and grace to the body anointed with it. Using this comparison, therefore, Heraclitus would distinguish the substance (God and

3) H. Gomperz, Ueber die ursprüngliche Reihenfolge einiger Bruchstücke Heraklits, *Hermes* 1923; Heraklits Einheitslehre v. A. Patin als Ausgangspunkt zum Verständnis Heraklits, *Wien. Stud.* 1923-

4) W. Gapelle, Heraclitewn, *Hermes* 1924; Der erste Fragment des Herakleitos, *Hermes* 1924.

5) A. Busse, Der Wortsinn von Logos bei Heraklit, *Rhein. Mus.* 1926.

6) B. Snell, Die Sprache Heraklits, *Hermes* 1926.

oil), which always remains unique and equal, from the changeable forms (series of opposites and different perfumes) that give it equally changeable names; and this idea, by probable Heraclitean inspiration, is justly expressed again by Plato in *Timaeus* 49ff, using the simile of the oil that receives the different perfumes.

The proposed correction allows us to understand the theological idea expressed in the fragment, that is, the idea of the One that unfolds in the many, indicated by the names. The classification of the many is realized in a system of oppositions that create the movement in the persistence of being; being, therefore, turns out to be the source of the oppositions and the center of confluence in which all of them are mutually identified. The result is positive in the highest degree: God who gives his strength to the opposites, like oil to perfumes, and who manifests his eternal being by ceaselessly producing and reconciling the contradictions of life.

Fraenkel's other study (*A Thought Pattern in Heraclitus*, in *Amer. Journ. of Philol.* 1938) highlights the frequent use in Heraclitus of a type of reasoning constituted by the proportion with its geometrical medium: this scheme serves Heraclitus to determine in his metaphysics the idea of the transcendent absolute; in his gnoseology, that of the enlightened sage, and in his physics the mutual relationship between the elements.

Fraenkel starts from the clumsy legend created around the death of Heraclitus, through the combination



and deformation of ideas that we find expressed in the fragments; one of these – as it seems to Fraenkel from the comparison with a Platonic quotation – must have contained the phrase "to bury oneself in the refuse", linked to the possession of a barbaric soul. In comparing the vulgar, attached to coarse materiality, with one who is buried in the refuse (enlightened man: vulgar man = vulgar man: one buried in the garbage), Heraclitus was employing this mental scheme of proportion, which appears repeatedly in his fragments.

Thus those who equate man with God; Fragment 79, man versus God = a rat versus man; Frs. 82 and 83: the most beautiful and wisest man versus God = a monkey versus man. Thus Fr. 1 (the vulgar versus the enlightened = asleep versus awake), fragment 34 (the unintelligent = deaf or absent), Fr. 107 (the Greeks = barbarians), etc. In all of them there is an inversion of the current valuations to affirm a superior absolute value in opposition to the relative values of the common opinion. This absolute value in some fragments is God whose transcendence, indefinable by another way, manages to have the only possible determination by way of a comparison with known values, carried out according to the scheme of the geometric mean. Some fragments employ, as we have seen, the human value of wisdom or beauty by reducing it to that of a rat or a monkey in comparison with God; in others the human value, converted into a disvalue by comparing it with the supreme absolute value, would be either the perfection

of the visible world in general (compared with garbage thrown at random: Fr. 124; or human existence (child's play: Fr. 52), or human communities and laws (Fr. 114).

Again the value that Heraclitus wants to determine by means of the same scheme of proportion is that of the enlightened sage, in whose comparison the common man is like the ass, who prefers straw to gold (Fr. 9); and this simile of bestial enjoyments returns in another form in Frs. 4 and 29 in relation to the pasture of cattle, in Frs. 13, 37 and 5 in relation to the means of purification. Fraenkel also finds applications of the geometrical means in Fr. 35 (the gods before men are as free men before slaves), 99 (the darkness before the light of the stars is as the latter before that of the sun). But the sun, exalted in fr. 99, is devalued in a relationship that Fraenkel believes to have existed between Frs. 3, 45 and 99: the sun is reduced to the size of a foot, while no foot, no matter how far it walks, can reach the depths of the soul; the sun has insurmountable measures guarded by the Erinyes, while the soul has infinite depths.

Another important application of the same scheme is found in the Heraclitean theory of the three elements, coincident with the three states of matter (solid, liquid, gaseous), whose reciprocal proportion is measured by a logos (proportional law) in mutual conversions. Earlier, Anaximenes had affirmed a single substance, air, convertible into an indefinite multiplicity of forms; at the same time of Heraclitus, Parmenides accepted a duality of elements (fire and night), whose mixtures are

governed by laws of addition and subtraction (not of proportion); and an echo of another theory of two elements (earth and water), predating Xenophanes, Fraenkel finds in Semonides of Amorgo (Fr. 7 against women) with the earth = passive element and the sea = active element. A central position maintains the sea in Anaximander and Xenophanes; and also in Heraclitus, being in him the central point of the double way upward and downward (Fr. 31), that is, the geometrical medium between fire and earth. The sea produces soul and life in evaporation, death in precipitation (Fr. 36).

The scheme of the geometrical medium remains in the Empedoclean theory of the four elements, where (explains Plato) because they are three-dimensional beings, a double medium (air and water) is required between the two extremes (fire and earth); but Heraclitus had preceded Philolaus and Plato in the use of the Empedoclean schem. However, the repeated use of the scheme by Heraclitus shows that it must have been introduced and familiarized in Greek science; and as its introduction must be attributed to Pythagorean mathematics, so Heraclitus bears witness, indirectly but surely, to one of the advances already made by the early Pythagoreans in the path of science.

Let me add this important document to those I have vindicated in my *Nota sulle dottrine del pitagorismo* (in Zeller-Mondolfo, *La filosofia dei Greci*, t. II, pag. 642 sigs., Firenze 1938) against the thesis of radical negation of the ancient Pythagorean science, which have become

fashionable among modern critics since a quarter of a century ago.

## Conclusion

This rapid survey of interpretations of Heraclitus proposed in the last half century, though far from a complete enumeration, can, however, by means of the obvious divergences between the various interpreters and the multiplicity of the problems raised and discussed by them or arising from their discussions, give a sufficient idea of the complication and difficulty of an adequate understanding of the thought of the Dark One of Ephesus. In my synthetic exposition I have generally refrained from criticism of the opinions and interpretations related, limiting myself to expressing some objection only when I could do so in a few words. In most cases a discussion cannot be usefully effected except by a careful analysis and collation of texts, irreconcilable with a synthetic review.

But my aim in this prologue was not to solve but to point out the problems involved; that is, to lead my readers to the knowledge and conviction of the difficulties of interpreting Heraclitus and of the multiplicity of the problems involved in a serious and conscientious study of his fragments.

Awakening awareness of the problems is the first – necessary – step towards the deepening of the study that can lead to solving them. This foreword will have achieved its purpose if it succeeds in communicating

such a conviction to its readers. A further step must be the careful examination of all the data we have, that is, by an analytical study of the ancient testimonies and the Heraclitean fragments, accompanied by a discussion of the many problems that have arisen about each of them. And that further contribution I hope to offer soon to Latin American readers, with the hope that it can serve to renew impetus to Heraclitean studies in Ibero-America.

Rodolfo Mondolfo

January of 1946







# HERACLITUS

A STUDY ON THE ENERGETIC THOUGHT  
FUNDAMENTAL TO HIS PHILOSOPHY.

(1904)



# I

In Heraclitus, Greek philosophy of the 6th and 5th centuries did not achieve a school, but rather a series of independent, powerful thinkers who were far ahead of their time in terms of maturity and astonishingly creative, the likes of whom did not reappear until philosophy took root in Athens and reached its peak. Greece never produced more powerful men than these, who, following one another, created a picture of the cosmos with master strokes, not so much critically and with the intention of satisfying the requirements of strict science, but with high intuition and a powerful view of the meaning of the world, its past and future. In this sense, one must judge their achievements. Instead of the cool rigor of discernment and analysis, as possessed by Aristotle, one finds here, to use Goethe's words, the "exact sensual imagination," a direction toward forms and thoughts, not their abstract conclusions, concepts, and laws. Heraclitus is not only the deepest, but also the most versatile and comprehensive mind among them. The systems of Anaximander, Xenophanes, and Pythagoras find kindred aspects in his. The great problems of Greek thought—the relationship between form and thing in itself, the concept of law, the concept of the inner unity of all being or happening, the origin of being, the origin of otherness—which were discovered at that time and condensed into naive and bold

formulas, he united in the fundamental ideas of his teaching, while the others represent them individually.

It would be incorrect, for this reason, to see Heraclitus as a successor or imitator of these teachings. Whether there was an Anaximander or Xenophanes and him was that of master to disciple or some other closer relationship is highly unlikely, considering the intellectual and political independence of the Hellenic cities and the self-confident lifestyle of these philosophers, which was far removed from the norm. question of little importance. The possibility of indirect influence does exist. But of the numerous possible influences arising from observation, experience, impressions and other opinions, only those that encountered related, essentially pre-existing elements can have had an effect. The fact that Heraclitus' independence has never been questioned can be concluded with great certainty from his character. If a similar direction in the thinking of these philosophers can be observed (such as the similarity of their starting points and the parallel treatment of the same questions), this follows from the organic unity of intellectual life within a limited cultural epoch, as history frequently shows. (cf. the ἀταραξία = imperturbability as the basis of all ethical teachings in the 3rd century, the problem of method in Bacon, Descartes, Galileo.)

The idea with which Heraclitus gave a new conception of cosmic existence is an energetic one: that of a pure (immaterial), lawful process. The removal of

this idea from the views of others, and equally from the Ionians, Eleatics, and atomists, is an extraordinary one. Heraclitus remained completely alone among the Greeks with this idea; there is no second conception of this kind. All other systems contain the concept of a substantial foundation (ἀρχή = principle, ἄπειρον = infinite, τὸ πλεόν = the full, ὕλη = matter, τὸ πλήρες = the full and also Plato's world of appearances, γένεσις in contrast to the world of ideas, αἰτία τῆς γένεσεως = cause of becoming), and the Stoics, who later appropriated Heraclitus' words and formulas, first had to fill them with the spirit of Democritus in order to make them acceptable to the age. This explains above all the frequent misunderstandings in the interpretation of this teaching, not because it is insufficiently known to us,<sup>1)</sup> but because it stands in contrast to our familiar way of thinking.

The history of Heraclitean research shows how, in order to assimilate a difficult, foreign idea, for lack of an adequate modern explanation of the idea, one resorts to all kinds of other ideas in order to be able to stick to familiar concepts and views. It is doubtful whether any possible explanation has not already been attempted. Heraclitus appears as a disciple of Anaximander (Lassalle, Gomperz), Xenophanes (Teichmüller), the Persians (Lassalle, Gladisch), the Egyptians (Tannery, Teichmüller), the mysteries (Pfleiderer), as a hylozoist (Zeller), empiricist and sensualist (Schuster), "theologian" (Tannery), as a precursor of Hegel

(Lassalle). His great idea resembles Hamlet's soul: everyone understands it, but everyone differently. The attempt to interpret the ideas of a philosopher who was unfamiliar with the sharp, long-practiced language of a highly developed science does not lead to the desired goal. Teichmüller (Vol. I, p. 80) says: "Anyone who seeks precise concepts in Heraclitus is wasting their time. For Heraclitus, philosophy consisted solely of an allegorical generalization of a few striking facts. If we wanted to define Heraclitus' way of thinking more precisely, we would destroy it." A consequence of this view is that, due to insufficient definition of concepts and untenable analogies, we arrive at the most serious errors. An example is the application of the term ἀρχή (= principle), which Anaximander used to his philosophy and which only makes sense within hylozoism, to others, including Heraclitus, in whose system it is completely irrelevant. One must be cautious, even skeptical, not only in explaining Greek elements of thought in themselves, but above all in distinguishing them from modern ones. We must not forget that our main concepts are the result of the entire development of modern philosophy since the 16th century and only have unconditional validity within this circle of ideas. The complexes of ideas that arose within cultures as different as the ancient and modern ones, which already differ in their different conceptions of science in general, correspond to thoroughly peculiar concepts on both sides. Even such an obvious as the concept of matter is not the same for Democritus and in modern natural science; there, the

cause of motion lies in the essence of matter (τὸχη: the event), here it is an independent factor outside, bound to the ether as energy.

Another difficulty lies in the fact that Heraclitus was certain of his view, but did not always find an adequate expression for it in language. Not only the lack of a scientific language with appropriately created expressions, but also the absence of a proper polemic among these philosophers, which would have forced them to express themselves sharply and cautiously, but also the impossibility of expressing a new knowledge of nature that contradicted appearances using the familiar symbols of language that had developed under different influences and opinions.

Goethe, whose views on nature were inspired by a similar spirit, was well aware of this limitation. "All languages have arisen from obvious human needs, human activities, and general human feelings and perceptions. When a higher human being gains an

1) The opinion of Th. Gomperz (Vienna. Sitzungsber. 113 (1886) p. 947). The other writings used here are: Schleiermacher, Heraclitus the Obscure (Works, III. Section, II. Vol.); Zeller, Philosophy of the Greeks, Vol. I.; F. Lassalle, The Philosophy of Heraclitus the Obscure of Ephesus; P. Schuster, Heraclitus of Ephesus; E. Pfeleiderer, The Philosophy of Heraclitus of Ephesus; G. Teichmüller, New Studies on the History of Concepts, Vol. I, II; G. Schäfer, The Philosophy of Heraclitus of Ephesus and Modern Heraclitus Research; G. Tannery, *Rév. philos.* 1883, XVI, *Héraclite et le concept de Logos*.

inkling and insight into the secret workings and goings-on of nature, the language handed down to him is not sufficient to express something so utterly remote from human things. When contemplating unusual natural phenomena, he must always resort to human expressions, whereby he almost always falls short, belittles his subject matter, or even distorts and destroys it." (Eckermann, *Conversations with Goethe* III, June 20, 1831.)

A presentation of Heraclitus' entire teaching is impossible due to the loss of his writings. Here, we will merely attempt to develop the principle that this thinker made the basis of his world system and which can be summed up in a few words: πάντα ρεῖ, the idea of pure, lawful becoming. It is inherent in the words that the execution must take place on two sides: becoming itself and its law. This separation is purely methodological. It must be emphasized that it does not correspond to a dualistic structure of the Heraclitean cosmos. All the ideas mentioned below are one and the same fundamental principle, which, conceived as a unity, has been preserved in the fragments (and perhaps already in Heraclitus' aphoristic style of writing in his book) only in a number of different representations, as they sprang from the imagination of a passionate artistic man.



## II

It would be an obstacle to understanding this teaching if we had lost knowledge of the great and tragic personality of Heraclitus. We would not understand why this philosopher made ἀγών (struggle), the most important custom of his time, a custom of the cosmos, what he meant by fire, to which he attributed a dominant role in the universe. His teaching is, even for that time and for a Greek, unusually personal, without much mention of himself.

We see a man whose entire feeling and thinking were under the sway of an unbridled aristocratic inclination, strongly influenced by birth and upbringing and provoked and intensified by resistance and disappointment. Here we must seek the ultimate reason for every trait of his life and every peculiarity of his thoughts. Even in the energetic concentration of the system, in the avoidance and disdain of all details and insignificant matters, and in the writing in short, strong phrases familiar only to him, we recognize the hand of the aristocrat.

The Hellenic nobility, <sup>1)</sup> whose downfall was taking place at this time, created the most significant and beautiful period of Hellenic culture. Through established the type of the perfect Hellenic man for all time through its customs, an incomparably high and noble culture of

the individual (καλοκαγαθία = probity); it represented not only rights or interests, but a worldview and a custom (Burckhardt). It was a proud, happy, ruling and ruling caste, proud of its blood, rank, weapons, and “anti-banausia”; it was the sole possessor of the spirit and the arts. One can understand the immense ethical power of the caste and its view of life over the spirit of the individual. It could itself succumb, but once under its spell, it was impossible to escape.

Heraclitus possessed all its self-confidence and pride, a strong, unintentional nobility that was foreign to any reflection on himself; he was passionately attached to its brave, healthy, lively customs, to fighting, to the pursuit of glory. <sup>2)</sup> This proud, unyielding man loved the difference between rulers and those who obeyed them, he had reverence for the traditional customs and institutions, <sup>3)</sup> which were no longer sacred to democracy. He was too profound a judge of character to judge the people of his time by their birth and rank alone. He believed in the Homeric distinction between the ἀριστοί, people with a grand and noble outlook on life, and the masses (οἱ πολλοί), in whom he discovered the shortcomings of their class with mocking insight <sup>4)</sup>. He did not allow himself to be drawn into attacks and disputes with the people (δημος), which his taste and

1) On the nobility, see Wachsmuth, *Hell. Altert.* I, 347 ff. J. Burckhardt, *Griech. Kulturgesch.* I, 171 ff., IV, 86 ff.

self-control forbade him to do, which was one of the first virtues of the noble Greek <sup>5)</sup>; without anger or outbursts, he judged the people from from above, coldly, maliciously, with contempt and disgust, sometimes concealing his rising resentment with a sarcastic remark <sup>6)</sup>.

The name of the weeping philosopher, given to him by antiquity, did not come about without reason, as betrayed by anecdotes <sup>1)</sup> and some of his aphorisms, which speak with a bitter, wounded tone. Linked by his ancestry and deep devotion to an ideal of life, he was born at a time when this ideal no longer had any possibility of existence. The power and customs of the

2) Fr. 24: 'Αρηιφάτους θεοὶ τιμῶσι καὶ ἄνθρωποι. Fr. 25: Μόροι γὰρ μέζωνες μέζονας μοίρας λαγχάνουσι. (The numbering of the fragments is according to H. Diels, *Heraclitus of Ephesus*, Greek and German, Berlin 1901.)

3) Fr. 33: Νόμος καὶ βουλὴ πείθεσθαι ἑνός. Fr. 44: Μάχεσθαι χρὴ τὸν δῆμον ὑπὲρ τοῦ νόμου ὅκως ὑπὲρ τείχεος.

4) "Aqistos (χαριῆς) in Homer in the sense of nobility II. VII, 159, 327, XIX, 193. Od. I, 245 and frequently. Likewise in Heraclitus Fr. 13, 29, 49, 104. Οἱ πολλοὶ in Fr. 2, 17, 29.

5) Among many others, Fr. 29: Αἰρεῦνται γὰρ ἐν ἅντια πάντων οἱ ἄριστοι, κλέος ἀέναν θνητῶν, οἱ δὲ πολλοὶ κεκόρηται ὅκωσπερ κτήνεα · Fr. 104: Δήμων ἀοιδοῖσι πείθονται καὶ διδασκάλῳ χρέωνται ὁμίλῳ ...

6) Fr. 43: "Υβριν χρὴ σβεννύειν μᾶλλον ἢ πυρκαϊήν. Also Fr. 47.

nobility had declined or disappeared. Democracy began to reign. He was too rigid and too defiant to give in or complain uselessly. One of the first and most influential dignities in Ephesus, which fell to him by inheritance (that of the βασιλεὺς: king), was no longer for him what it should have been. He renounced it. <sup>2)</sup> The life of the πολίς (state) lost its aristocratic form and the masses began to rule. So he left the city where he could have been a minor ruler and went into the mountains, into voluntary solitude, an existence that to the sociable Greek, who had grown together with the fate of his city, seemed the most terrible thing imaginable. He remained there irreconcilable, enduring a life that ultimately brought him close to madness, if one is to believe Theophrastus. <sup>3)</sup>

As a Hellene, he considered fame, one might say celebrity, to be the highest good. <sup>4)</sup> The question is whether his self-imposed solitude and the strange traits that attracted admiring attention to him might not have compensated him for a role in Ephesus. Every Greek wanted to be talked about, at any price. Herostratus is a famous example of what one could attempt for this purpose. But one sees this also in Alcibiades, Themistocles, and every other person who can be considered a true Hellene. One must not forget in Heraclitus this national form of ambition, an unfortunate trait of the Greek character. This characteristic, which appears ignoble in our eyes, is not a striving that denies the opponent magnanimity and recognition, but an

irrepressible, consuming envy, even hatred of anyone who was happier, an unbearable consciousness that leads to self-destruction, to be admired less than others, which made the Greeks with their lively sensibility into a deeply unhappy people.

For philosophy, it followed that in earlier times, a problem was never dealt with by a series of thinkers one after the other. Here, everyone starts from scratch, perhaps from the opposite point of view, and hardly anyone gratefully accepts the discoveries of their predecessors.

Rather, they know how to emphasize the differences, even exaggerate them, and until Aristotle, each of the greats looked down on the others with sufficient derision. As a Greek, one cannot expect Heraclitus to acknowledge the merits of others. On the contrary, he

1) He was once watching children playing when people from Ephesus passed by and stopped. He snapped at them: What are you gawking at here? Isn't this better than ruling the state with you? (Diog. Laert. IX, 3.)

2) Fr. 121. Also Fr. 85: Θυμῶι μάχεσθαι χαλεπὸν ὅτι γὰρ ἂν θέληι, ψυχῆς ὠνεῖται.

3) The strong impression this man made on his contemporaries gave rise to well-known stories such as that he had deposited his writings in the Temple of Artemis so that they would only come into the hands of posterity (Diog. Laert. IX, 6).

4) Fr. 24, 25, 29. 9

tends to emphasize contrasts in paradoxes and antitheses, and when he does mention a famous name, he certainly always does so with malice (Fr. 40, 57, 129; Plutarch de Iside 48, 370). The peculiarity of his fate increased his self-awareness as an unusual person and led to an exaggeration of his drive for originality, to a fundamental rejection of all foreign opinions, even to the point of avoiding common phrases that might sound trivial to him. Under these conditions, the genesis of his thoughts can be traced and the degree of their dependence on contemporary systems can be measured.

### III

For every thinking person, there is a form of thinking that arises from the same psychological causes as worldview and the results of thinking, and is closely linked to them. In the broadest sense, not only as a type of logical reasoning, but also as a method of selecting and utilizing impressions of all kinds, it acts as a mediator between personality and system, and in some circumstances even as an independent cause of value. The style of thinking and the doctrine itself are related. This circumstance is important for Heraclitean philosophy. Heraclitus lived in a time of naive thinking that had not yet matured to the point of reflection on itself—in the fortunate position of being able to draw from the fullness of life, of being able to indulge his desires without being restricted by significant preparatory work in his field to research on a smaller scale within fixed directions, a happiness of which Goethe was aware when he once emphasized: When I was eighteen, Germany was also only eighteen. (Eckermann, *Conversations with Goethe* I, Feb. 15, 1824.)

Heraclitus was only an aristocrat according to his worldview, in terms of his entire way of thinking he can be described as a psychologist. The two are often found in conjunction with each other. This is not meant to say anything about the subject of his investigations, but

rather to indicate a method of treatment. He does not consider nature in itself as an object, according to appearance, origin, and purpose; rather, his method is an analysis of natural processes, insofar as they are processes and changes, according to their lawful relationships; one can call his system a psychology of world events. This new philosophical question leads to the discovery of new problems. Heraclitus can be considered the first social philosopher, the first epistemologist, the first psychologist. His aphorisms about people are not sayings with an ethical tendency like the gnomes of Bias or Solon, but for the first time truly observed, thoroughly objective remarks that completely avoid a didactic tone.

Let us not forget an essential difference that separates Heraclitus and the whole of Greek philosophy from the newer one. The people, whose educators were gymnastics, music, and Homer, who invented the word *κοσμος* (order, structure of the universe) for the world because they saw in it above all the meaning of order and beauty, did not treat philosophy as a science (abstract scientific investigations have always been subordinated to the metaphysical end), but as a way of creating a worldview that allowed them to see their place in the universe, and as an opportunity to express their joy in form. It would be wrong to place Greek thought, which arose under the open sky, in a southern, sunny landscape, from a cheerful and easy-going life, at a deeper level than our own because of this kinship with



art that is foreign to us. For the Hellenes of the classical period, philosophy is a plastic art, the architecture of thought. The plastic strength of the Hellenes, their ability to subject everything they learned and created to a unified style, is tremendous, and this sense of form gives rise to a tendency to conceive philosophical systems as works of art.

Heraclitus is the most important artist among the pre-Socratics. This is evidenced not only by the rich and colorful pathos of his style, but above all by the ingenious plasticity of his presentation. He sees his ideas, he does not calculate them. Their intuitive character, which is foreign to all dialectics, as it is especially supported by the opposing system of Parmenides <sup>1)</sup>, are supported by the always aptly chosen.

At times, there was no other means of communication left, because his problem with linguistic representation gave rise to difficulties that he could not always overcome, despite his energy of thought. His main idea completely contradicts appearances and conventional thinking and requires a high degree of

1) Cf. Fr. 8, where he calls the rhetorical method *zonidov dopnyós*, leader to slaughter. (Allegedly against Pythagoras, cf. note to Byw. Fr. 138.) 12 examples (such as those of the bow and the lyre, of the mixed drink), in which he attempts to reproduce an image that is tangible to him.

abstract thinking to be found at all. Thanks to his relentless consistency and a sure view of the field of his investigations, he achieved an inner unity of his system that has probably never been achieved again. It is concentrated with great simplicity on one idea and is unassailable in its details thanks to its inherent logic.

Heraclitus can be described as a realist, even though he is easily mistaken for the opposite. Every concept that seems to point to symbolist intentions can be traced back to a real basis upon closer examination. He has a thoroughly healthy view of tangible <sup>1)</sup> and often a great subtlety in distinguishing between them <sup>2)</sup>. But he does not deny the aristocrat anywhere; his thinking has a true imperial style, a very summary approach even for that time. <sup>3)</sup> Only the great, fundamental ideas are worth his consideration, with a pronounced aversion to actual scientific research into details. He has a definite, strictly limited view of how one should think. One should not want to know everything, only what is valuable and great; select little, but penetrate it thoroughly. He wants depth, substance, clarity, not breadth of knowledge. Hence his polemic: πολυμαθίη νόον ἔχειν οὐ διδάσκει. Ἡσίοδον γὰρ ἂν ἐδίδαξε καὶ Πυθαγόρην αὐτίς τε Ξενοφάνεα καὶ Ἑκαταίον (Much scholarship does not teach understanding. For it would have taught it to Hesiod and Pythagoras and equally to Xenophanes and Hecataeus - Fr. 40). Μαθίη (apprehension) is the mere acknowledgment of things. The collection of facts without overview and

understanding, is abhorrent to him. However, it is not a matter of knowing little: χρῆ γὰρ εὖ μάλα πολλῶν ἱστορας φιλοσόφους ἄνδρας εἶναι καθ' Ἡράκλειτον. (it is necessary, then, that they have knowledge of many, many things the men who love wisdom, according to Heraclitus – Fr. 35.) "Ἱστορίη is the penetrating critical observation (not knowledge from books: Gomperz in op. cit. 1002 f. "Ἱστορίη witness, critic, in Homer: arbitrator. Cf. Porphy. de abst. II, 49: "Ἱστορίη γὰρ πολλῶν οἰτως φιλόσοφος = knowledgeable, then, of many things is the philosopher of truth). A scientific philosophy will never arise on such a basis. But here one must distinguish between questions that lie outside the main focus and the basic idea itself; this has been exhaustively explained. One must not judge the logic of the line of thought by its unsystematic presentation. The work is a collection of aphorisms, like a remark by Theophrastus and the fragments themselves. Heraclitus did not attempt to be didactic in the most modest sense, let alone popular, as evidenced by his style, which is by no means designed for easy understanding and corresponds perfectly to his misanthropic worldview.

1) Fr. 55: "Ὅσων ὄψις ἀκοή μάθησις, ταῦτα ἐγὼ προτιμέω.

2) An example: Οὐ γὰρ ποονέονο (seeing through reflection) τοιαῦτα οἱ πολλοί, ὅποιοις ἐγκυρεῦσιν, οὐδὲ μάθοντες (perceiving with the senses ), γινώσκουσιν (understand), ἐωυτοῖσι δὲ δοκέουσι (have the feeling of having understood it).

3) The impression of this method on later, somewhat stricter philosophers Diog, Laert. IX, 8: Σαφῶς δὲ οὐδὲν ἐκτίθεται.



## A. Pure Movement

### I. First formulation: πάντα ῥεῖ (everything flows)

#### 1. The cosmos as an energy process.

The basic idea on which Heraclitus based his view of the cosmos is already fully contained in the famous πάντα ῥεῖ. However, the mere concept of flowing (change) is too vague to reveal the finer and deeper gradations of this idea, whose value does not lie in asserting a mere the diversity of successive states of the visible and tangible world, which no one doubts. Right at the outset, it is important to emphasize the important difference between Heraclitus' conception of the course and innermost character of world events themselves, which he said were inaccessible to our perception, and the view that the world of things we must logically understand as the appearance of these events and their effect on the senses.

If we take this distinction, which Heraclitus' teaching undoubtedly contains, although it does not appear fundamentally separated in the fragments of his writing, as a basis, we avoid one of the most common misunderstandings in the assessment of this teaching. If

one wants to reduce events in nature to their most original elements, the concept of change is still capable of several interpretations. One can assume a substrate with the sole determination of permanence, in which case change appears as the way in which the permanent exists at every moment. Kant, from this cautious and unassailable standpoint, described the statement that substance persists as a tautology. "For it is merely this persistence that is the reason why we apply the category of substance to phenomena, and it would have been necessary to prove that in all phenomena there is something persistent, in which the changeable is nothing but the determination of its existence." <sup>1)</sup>

In order to arrive at a simpler and more vivid idea, one adds to this characteristic of the substrate those of filling space, impenetrability, and qualitative constancy, thus obtaining the concept of (physically conceived) matter, in relation to which change can only be thought of as a spatial one. This Democritean concept of the displacement of mass particles (περιφορὰ), which is also found in more recent natural science, does not lie in πάντα ῥεῖ. It is possible to abandon the concept of substrate altogether, whether as that which persists in the change of appearances (which physically manifests itself as the unchanging relationship of forces acting on a body to the resulting accelerations) or as actual matter,

1) Critique of Pure Reason (Kehrbach), p. 177.

can be abandoned, whereby the concept of change (of becoming, flowing) acquires a new and richer content.

The most general basic concepts that are indispensable for the schematic illustration of natural processes, to which every knowledgeable person tends, are subject to change over the centuries to a development determined by the respective state of science, so that they now only fully satisfy the thinking of a limited period of time, but are so necessary to it that it is not possible without difficulty to free oneself from their influence in order to understand the different concepts of an earlier epoch (in this case Heraclitus). When Plato in *Philebus* explains the phenomenal world as a product of empty space (τὸ μὴ ὄν = non-being, ἀπείρῳν = infinity) and mathematical form (πέρας = finitude), we can hardly form a corresponding idea from these concepts.

Most attempts to understand Heraclitus' special ideas are influenced by the view that is characteristic of modern natural science and of many philosophers since Hobbes – and not only as a Most attempts to understand Heraclitus' particular train of thought are influenced by the view that has been characteristic of modern natural science and many philosophers since Hobbes – and not only as a “working hypothesis” (Ostwald) which, as a result of long-standing habits of thought, almost necessarily divides what is given in perception into an active and a passive component. Here, then, a distinction is made between two quantities: matter and

independent energy, which is separate from it and whose object is matter. The second concept, unknown in Greek philosophy, is to be understood in a thoroughly substantial sense. As a result, however, the need to assign a carrier for this energy to which it is bound is so strong that, after its fundamental separation from matter, the wave theory of light led to the assumption of a second type of matter, the ether, simply because it was impossible to imagine a quantity with these characteristics acting without a carrier. (Lord Kelvin proved that this hypothetical ether with properties such as those required by the wave motion of light rays is not viable.)

A physical carrier of motion is not necessary to conceive of action in space. The energetic theory proposed by Mach and Ostwald is much closer to Heraclitus' idea. After the critical philosophers of the 18th century had explained things as coordinated complexes of sensations, and thereby proved the ultimate goal of almost all philosophical research, the understanding of things in themselves, to be impossible and erroneous, it was no longer possible to conceive of substance as material. Energetics recognizes this criticism at least in relation to the concept of matter and defines nature as a sum of energies (although this concept is again understood in a thoroughly substantial sense). "We acquire our knowledge of the external world only through the stimulation of our sense organs by the objects of that world in a certain way; the nature and



intensity of these stimulations we attribute to the “properties” of matter. But if we take away those properties from the objects, we are left with nothing that is accessible to our experience, and matter disappears when we try to think of it in isolation (Ostwald, *Chem. Energie*, 2nd ed., p. 5). This approach of energetics to Heraclitus is important because it makes it possible for the first time to put his thoughts into a modern, scientific form. What exists in space is exclusively energy: “If we remove its different types from matter, nothing remains. Not even the space it occupied. Thus, matter is nothing more than a spatially arranged group of different energies, and everything we say about it, we say only of these energies” (Ostwald, *Überwind. d. wissensch. Materialismus*, p. 28). However, Kant's aforementioned definition can be applied to this substance, namely that it persists (J. K. Mayer's law) and only its mode of existence changes (the “forms” of energy: light, heat, electricity).

The Greek view is different from the outset. The concept of force was first created by Galileo and was unknown to the Greeks. Let us therefore distinguish between motion and energy. Motion (a relational concept) presupposes only something moving and nothing else. Energy (the substantially conceived cause of motion) is itself a second quantity alongside the moving object, even if this is again to be thought of only as a group of energies. We say: “the force acts at a point.” In contrast, the monistic Greek philosophy

recognizes only immanent and ideal causes of motion (ἀνάγκη = necessity, φιλία καὶ νεῖκος = love and strife, λόγος = reason, τύχη = chance); Democritus' atoms move as a result of τύχη (chance); it is in their nature to move. They do not need any energy to strike them. For Greek monism, what exists in space (best described by Parmenides as το πλεον, that which fills space) has thus become a completely different quantity as the only and indivisible substance. It is this concept of substance that is missing in Heraclitus.

The first problem of Greek philosophy, for which the myth left a gap but also provided no guidance, is that of the “origin” of things. The chaos at the beginning of the world, which a Greek would have defined as a qualitatively indeterminable mass with no rules governing its movement, gave rise to the idea of a primordial substance. Αρχή (principle) is a substance.

According to Thales and Anaximenes, the world consists of the qualitative transformations of this initially existing substance. The significance of Anaximander lies in the fact that he eliminated sensory qualities in order to define it. The ἀπειρον (infinite), conceived as αρχή (principle), is something completely beyond perception, whose specific effect on the senses only allows qualities and thus things to arise. At least here a physically conceived background for sensations is still assumed. The unconditional skepticism toward the concept of substance is difficult. Parmenides rightly remarked that all thinking refers to a being, that everything that is

thought acquires the property of substance at that moment.

Since Greek thinking knows no separation between the moving and the moved, and Heraclitus emphasizes the unity in world events, his statement ἐκ πάντων ἓν καὶ ἐξ ἑνὸς πάντα (of all things the one, and of the one all) is equivalent to Xenophanes' Ἐν καὶ πᾶν (one and all), so the assumption of a "pure, uniform, unceasing becoming" that the Eleatics deny <sup>1)</sup>, must exclude the concept of substance in every sense.

In the execution of this idea, the extreme difficulties of linguistic representation arise; one of the cases where we notice that language itself contains philosophical principles. Our entire philosophy is a correction of language usage, remarked Lichtenberg; "we therefore always teach true philosophy using the language of false philosophy." We cannot express the denial of being precisely in language. Οὐδὲν μένει, πάντα χωρεῖ (there is nothing firm, everything flows): one senses that the subjects of these sentences already contain a proper being. Language is Eleatic philosophy.

Heraclitus explains things fundamentally as a change occurring in every sense: λέγει πού 'Ηράκλειτος οτι

1) Xenophanes in Clem. Strom. V, 109 p. 714 P. (Diels): Αἰεὶ δ' ἐν ταύτων μῖμνει κινούμενος οὐδὲν οὐδὲ μετέρχεσθαι μιν ἐπιτρέπει ἄλλοτε ἄλλῃ. (It always remains in the same situation without moving for ὑλδατ "1 it is up to him to move now here, now there).

πάντα χωρά. καὶ οἶδεν μένει. (Heraclitus says somewhere, that everything flows, and nothing is firm; Plato, Cratyl. p. 402 A.) Plato (Theaetetus 181, B. ff.) divides this complete transformation (μεταβολή = change in Fr. 91, ἀνταμοιβή = exchange in Fr. 90) is divided by Plato (Theaetetus 181, B. ff.) into a spatial (περιφορά = translation) and qualitative (αλλοίωσις = alteration). It must be firmly established that for a Greek there is only one real quantity in the external world in order to find the rejection of the concept of substance in this idea. Heraclitus never uses the concept of substance, which should have been familiar to him from the philosophy of the time (ἀρχή: principle, ἀπείροον: infinite – Teichmüller vol. I, p. 147). He is also unfamiliar with the concept of empty space, which easily follows from the assumption of moving matter. Heraclitus attempted to find an appropriate expression for his new idea. In the sentences: συνάψεις ὅλα καὶ οὐχ ὅλα, συμφερόμενον διαφερόμενον, συνάιδον διᾶιδον, καὶ ἐκ πάντων ἓν καὶ ἐξ ἑνὸς πάντα (connections: the integers and the non-integers, the convergent and the divergent, the concordant and the discordant, and from all things is born the one and from the one all – Fr. 10) and: γνώμη, ὅτῃ ἐκυβέρνησε πάντα διὰ πάντων (the reason that governs things by means of all – Fr. 41., cf. Pseudo-Linus 13 Mullach; κατ' ἐριν συνέπαντα κυβερνάται διαπαντός: by discord everything is governed, by means of everything), one undoubtedly sees the attempt at an energetic formula to express the pure, immaterial action in space.

This action is beyond sensory perception. What we see and feel is always something that exists, a persistent state: θάνατός (death, that which is motionless) ἐστίν, ὅωσα ἐγερθέντες ὀρέομεν (everything we see while awake is death – Fr. 21). The senses deceive: This insight made him a skeptic of knowledge. The background of the world around us, the “becoming” that acts in space, is not visible.

Heraclitus speaks of an invisible harmony as opposed to the visible harmony in the world of appearances (ἁρμονίῃ ἀφανῆς φανερῆς κρείττων (the invisible harmony is superior to the visible: Fr. 54). Fr. 123 says the same thing: φύσις κρυπτεσθαι φιλεῖ, nature tends to be hidden; <sup>1)</sup> in nature, the deeper essence is hidden; one must first interpret the impression of the senses. This appearance of the energetic process is also different for us: ὁ θεὸς (= φύσις, κόσμος) ἀλλοιοῦται ἥκωσπερ πῦρ, ὁκόταν συμμιγῇ θυσίαισιν, ὀνομάζεται καθ’ ἡδονὴν ἑκάστου (the god = nature, cosmos – is permuted as fire, when mixed with aromas, is named according to the taste of each of them – Fr. 67).

From this theory it necessarily follows that becoming and flowing must be uninterrupted: χυχρόν δύσσταται μὴ χινομένου (the compound mixture decomposes if it is

1) φιλεῖ does not mean it loves to hide. The word should not sound so personal. Cf. φιλεῖ in Fr. 87 according to Diels: A vacuous person tends to stand rigidly by every word.

not stirred – Fr. 125). This image of the mixing pot is an example of the mastery with which Heraclitus knows how to give his ideas a happy vividness. (Nietzsche draws attention to the aptness of the expression “reality.”) A balance of antagonistic forces would be eternal rest. It is necessary for the existence of the cosmos that different tensions constantly confront each other, resist each other, measure themselves against each other; there must be no moment of rest, but rather a minimum of imbalance must always be present in space.

<sup>1)</sup>

We must think of eternal activity as the ebb and flow of tensions (opposites). An attempt to express this is Fr. 91: ἀλλ’ οξυτιται καὶ τάχει μεταβολῆς σκιδνησι καὶ πάλιν συνάγει καὶ πρόσεισι καὶ ἀπασι (but by the liveliness and rapidity of its change it spreads and again is gathered and comes and goes). As concise expressions for this idea are the almost synonymous expressions ονμγεγόμει νοῦ διαφερόμενον (convergent divergent – in Fr. 10: συνάψεις ὅλα καὶ οὐχ ὅλα, συμφερόμενον διαφερόμενον, συνᾶιδον διᾶιδον κτλ = connections: totalities and non-totalities, convergent-divergent, concordant-discordant, etc.; Plato Sophist. 242e: διαγεγόμενον δὲ ἐνμυγέgerai = the divergent always converges; Lucian. vit. auct. 14: αἰὼν παῖς ἐστὶ παίζων

1) The same means the doctrine of entropy, the foundation of modern theoretical physics.

πεσσεύων συνδιαφερόμενος = time is a child playing a game with dice, converging diverging; Plato Symp. 187A: τὸ ἓν· γάρ φησι διαφερόμενον αὐτὸ αὐτῷ ξυμφέρεσθαι. says, then, that the One, diverging converges itself with itself) and ὁδὸς ἄνω κάτω (= way upwards downwards – in Fr. 60: ὁδὸς ἄνω κάτω μία καὶ αὐτὴ = the way upwards and downwards is one and the same; Diog. Laert. IX, 8: καλεῖσθαι μεταβολήν (cf. Fr. 91) ὁδὸν ἄνω κάτω = call the change upward and downward).

This idea that action in space, i.e., the rise and fall of opposing tensions, occurs in such a way that there is a constant striving for equilibrium, is known in energetics as Helm's law: Every form of energy strives to move from places where it is present in higher intensity to places of lower intensity (Helm, *Lehre von der Energie*, p. 59 ff.). The difference lies exclusively in Heraclitus' non-substantial way of thinking. The attempt to give abstract considerations abstract consideration in a form that is understandable and pleasing to the eye is a tendency to which Heraclitus most easily and willingly succumbs and which ultimately leads to the idea of a wave-like movement. (It is the only easily overlooked idea of a movement bound to a place.) The Ionian, who could gaze at the sea every day, must have known how much the restlessness of a sought-after and never achieved union is reflected in its movement, from the lightly curved line to the high meandering waves. In this sense, half abstraction and half artistic observation, one

can well understand the phrase παλίντροπος ἄρμονιη κόσμου, ὅκωσπερ τόξου καὶ λύρης = harmony by opposite tensions of the cosmos, like that of the bow and of the cithara (Fr. 51). <sup>1)</sup>

The line of the ancient Greek bow is the same as that of the lyre (Arist. Rhet. III, 11 p. 1412 h 35: τόξον φόρμιγέ ἄχορδος = the bow is a cithara without strings), an evenly curved line whose ends approach each other. To come closer to Heraclitus' idea of the lines of opposing forces seeking balance, one could think of the arsis and thesis of metrics and the tone line of melodies. This avoids the error of assuming vibrating particles. This idea applies to the entire the cosmos: "For he says that one thing is different from itself and yet harmonious, like the harmony of a bow and a lyre" (Plato, Symposium 187 A). A comparison allows us to fully appreciate the significance of this idea: ἦν (ἀράγκην) εἰμαρμένην οἱ πολλοὶ καλοῦσιν Ἐμπεδοκλῆς δὲ φιλίαν ὁμοῦ καὶ νείκος Ἡράκλειτο δε παλίντροπον ἄρμονιην κόσμον ὁκωσπερ λυρας καὶ τόξον (necessity is called fatality by most; Empedocles calls it friendship and hatred together; Heraclitus, on the other hand, harmony

1) Which was mostly interpreted symbolically; by Lassalle (I, p. 114) as a symbol of the Apollonian cult, by Pfeleiderer (p. 90) and Schäfer (p. 76) as symbols of cheerful life and death, which is far too sentimental for Heraclitus; on the other hand, it is used as an image of the world process by Bernays (Ges. Abh. I, p. 41) and by Zeller (I, p. 548).



by opposing tensions, like those of the lyre and the bow – Plut. de anim. procr. 27 p. 1026).

If one imagines what the *εμπαμένη* (fatality), the great, omnipresent and unconditional fate, is in the imagination of a Greek, one will also understand the meaning of Heraclitus' harmony (which is synonymous with *λογος*: reason or *νόμος*: law).

All these attempts to gain a new view of events spring from the denial of persistent being. Everything is not in a state of flux – “everything” would still be a form of being – but rather the background of appearance is to be thought of exclusively as pure action, if you will, as the sum of tensions.



## 2. Fire

Heraclitus mentions fire in a way that forces us to think of it as being, as a state; thus, even for him, there are states in the world of appearances essentially coinciding with the states of aggregation – which in this system, where the concept of substance is rejected, demand an explanation. The fact that there are states of rest in nature (from which the assumption of persistent substances first arose) cannot be disputed. Heraclitus mentions them (θάνατός ἐστιν, ὁκόσα ἐγερθέντες ὀρέομεν = death is all that we see awake – Fr. 21) and attributes them to the deception of the senses. The eye is prevented from seeing becoming and flowing (Fr. 54 and 123. See p. 20). It appears to humans in several typical forms, forms of sensory appearance (γῆ = earth, πῦρ = fire, θάλασσα = sea, water, πρηστήρ = weather; these are already the elements of the Empedocles), which change among themselves and have a transient existence. They have a purely subjective reality. In the past, people spoke of light, heat, and electricity as natural forces. Today, they are referred to in a similar sense as forms of energy, tacitly that they are manifestations of “energy in itself,” that unknowable cause of events. This is how Heraclitus conceives of fire, the sea, the earth, and the storm: things that only appear to have existence and duration, which they would like to convince the knowing mind of, and which, removed from the eye, are

nothing more than eternal restless flow and becoming, one like the other.

This gives us the concept of fire: a manifestation of the cosmic process, but not yet its meaning. Heraclitus describes this natural phenomenon, which in itself should have no advantage over others, in a mysterious way. Because of this high significance, one might believe that the main point of the entire teaching has been found here; the idea contained herein has also been subject to many misunderstandings. The interpretation of fire merely as a symbol of change <sup>1)</sup> can be dismissed; one no longer seeks obscure symbolism in this philosopher. But it is understandable how the idea and designation of fire as ἀρχή (principle) could have become commonplace since Aristotle. <sup>2)</sup>

Ἀρχή is a very specific term which, due to many assumptions that cannot be separated from it, can only

1) In this sense, especially Schleiermacher and Zeller, who believes that Heraclitus was not yet able to separate the symbol from its sensual form.

2) Simpl. in Arist. Phys. 6 a: "Ἰννασος zai Hoazλ. nvg ἐποιοῦσαντο τῷ ἀοxv. Zeller (I, p. 541); "the substance in which the reason and essence of all things is sought." Teichmüller (I, p. 135): the basic substance, like the air of Anaximenes and the water of Thales." Pfeleiderer (p. 119 ff.): "the secondary concrete form of metaphysical ideas." Gomperz, Lassalle, and Heinze (teaching of Logos, p. 4) also describe fire as matter.

be used in a limited way. The Ionians coined it; if understood correctly, it encompasses the entire system of these philosophers. Above all, it contains the idea of development and transformation back into a normal state. The question posed by the Ionians was: Where did things come from? A substance emerges, namely a temporally and physically original substance (because *αρχή* means both), which, in Anaximander, takes on qualities while remaining itself. Despite its qualitative variability, the *αρχή* has the conceptual characteristics of a substance. According to Anaximenes, the other states arise from the air through a spatial (volume) change of this initial substance (*πυκνώσις* = condensation, *μάνωσις* = rarefaction), a view that does not contradict that of Democritus. How could one connect Heraclitus with this problem? None of his statements bear any relation to this question. Heraclitus knows no substance, that alone is decisive; but he also does not know the idea of development from an original and normal state. It is impossible to ask about a primordial substance in the context of his thoughts. His problem was: How does the cosmic process take place? The supposed states and substances are in truth the changing form of its appearance: *νὸς τροπαὶ πρῶτον θάλασσα, θαλάσσης δὲ τὸ μὲν ἥμισυ γῆ, τὸ δὲ ἥμισυ πρηστήρ* (transformations of fire: first the sea, from the sea one half earth, the other half weather – Fr. 31). Fire is therefore not considered to be substance, but as *τροπή* = change (*ανταμοιβή* = exchange in Fr. 90). This distinction is valuable. *Τροπή* and *αρχή* are the strongest opposites; *αρχή* a substance,

something existing and persistent in itself, τροπή a metamorphosis, a form. As ἀρχή can always only be assumed to be one of the existing substances that is present first for whatever reason; the others are dependent on it. τροπή is equally fire and every other phenomenon. One wonders whether Anaximander could have used this expression.

Heraclitus placed fire at the center of the equally valid types of phenomena. The reason for this choice is to be found in the less scientific than artistic character of his thinking. He was guided here by the same feeling that has made fire and the sun the object of religious worship throughout the ages. This most mysterious, noble, and purest of all natural phenomena appeared to the people of a distant time as something sacred, and Heraclitus' reverent nature, receptive to aesthetic impressions, did not shy away from this impression. He saw here the purest representation of the character of the restless (πῦρ ἀείζωον = ever-living fire). This reflected his penchant for vividness. Fire is the most terrible and powerful of the elemental forces which truly dominates nature. That is why he loved it. (τὰ δὲ πάντα οἰακίζει κεραυνός: all things are ruled by lightning – Fr. 64.; Πάντα γὰρ το πῦρ ἐπελθὼν κρίνει καὶ καταλήψεται: fire, supervening, will judge and condemn all things – Fr. 66.) There is no scientific reason for this preference, and it is also unlikely that he wanted or was able to base it on such reasons. The visible form of cosmic movement is constantly changing. Fire, as one of the possible forms

(τροπαί), is the most beautiful and noble, but not a physically more important or more original form than a substance, the ἀρχή.

It is a manifestation like any other, and transient like any other: πυρὸς τε ἀνταμοιβή τὰ πάντα καὶ πῦρ ἀπάντων ὥκωσπερ χρυσοῦ χρήματα καὶ χρημάτων χρυσοῦς (from fire are changed all things and fire from all things, just as from gold commodities and from commodities gold – Fr. 90). The τροπαί (forms) are in a state of constant mutual dissolution; this is one aspect of their nature. Heraclitus found a fitting phrase for this change of equivalent phenomena: πυρ τὸν ἀέρος θάνατον καὶ ἀήρ ζῆι τὸν πυρὸς θάνατον, ὕδωρ ζῆι τὸν γῆς θάνατον, γῆ τὸν ὕδατος (fire lives the death of air, and air lives the death of fire, water lives the death of earth, earth the death of water – Fr. 76). One can understand the meaning of this expression: the momentary predominance of one form already determines an increase in power of the other, which finally reaches a degree that must bring about a change. In this case, fire is considered, as already mentioned, not in a physical sense, but in an aesthetic sense, as the most perfect of all conceivable forms. “According to Heraclitus, there is a hierarchy of values among the elements, determined by their distance from the moving and living fire itself” (E. Rohde, *Psyche* II, p. 146). The cosmos, the great order of the course of all world events is, in a certain sense, truly identical with fire (κόσμον τὸν αὐτὸν ἀπάντων οὔτε τις θεῶν οὔτε ἀνθρώπων

ἐποίησε, ἀλλ' ἦν αἰεὶ καὶ ἔστι καὶ ἔσται πῦρ ἀεὶζων, ἀπτόμενον μέτρα καὶ ἀποσβεννύμενον μέτρα: this cosmos, the same as all, was not made by any of the gods, nor by men, but has always been, is and will be ever-living fire, which is kindled according to measures and extinguished according to measures – Fr. 30).

In Heraclitus' opinion, the universe, sublime nature, the most sublime, purest, and noblest form; the cosmos is therefore only in a state of perfection when change has taken on exclusively the form of fire, a state that recurs regularly in the course of time (Fr. 30, 66). All other forms (solid, liquid, gaseous) appear to be of lesser value in comparison to the beauty and power of fire. (This is the meaning of the words *χρημοσύνη* = necessity and *κόρος* = fullness in Fr. 65). Teichmüller (I, p. 136 ff.) rightly sees here a hint and variation of the Greek idea that appears developed in Aristotle's *entelechy*, the path from the potential to the actual.



### 3. Πάντα ῥεῖ as the formal principle of organic nature.

We come to the other, one might say external area of application of the Heraclitean principle of motion, the visible and tangible changes in nature that surround us. The basic idea contained in the formula πάντα ῥεῖ appears here as the formal principle of life and events of all kinds. We must therefore distinguish between the never knowable background of things, the actual becoming and acting, and its external appearance as the world of the senses. The application to the latter is universally recognized and easily comprehensible, and is usually understood solely as πάντα ῥεῖ.

Only the restlessness of the energetic process is invisible (as are, for example, the etheric waves of light); everyone can see the changes in the phenomenal world, which constitute what is popularly called the “life of nature.” The second distinction is more important. Events in nature lack the appearance of regularity, of a strict, unchanging rule. In the growth of a plant, the play of the waves, the course of atmospheric events, humans do not tend to have this impression. One cannot speak here of a uniform, or even a continuous, change in all cases. In the energetic process, movement is a conceptual necessity, even a tautology; here it is possible, at most the rule. Before Heraclitus, no one had noticed a rule

here. Simple observation teaches us that this life and these events lack rhythm. Therefore, to the artistic eye of Heraclitus, the harmony of appearance (which he nevertheless assumes) is valued less than that other harmony, which arises from a metrical rule of regularity and is only imagined (ἁρμονίη γὰρ ἀφανὴς φανερῆς κρείττων: the hidden harmony is better than the manifest one – Fr. 54).

The transformation itself escapes no one, only its law is hidden. But it is there, if one knows where to find it. And it is the same as that of eternal action. <sup>1)</sup> This is a great thought. It was Heraclitus' opinion that nature is essentially under the influence of this change, which is also complete and universal: for it is impossible for a river to flow into the same sea twice αὐτῷ οὐδὲ θνητῆς οὐσίας δις ἄπτεσθαι κατὰ ἕξιν (it is not possible to enter twice in the same river nor to touch twice a mortal substance in the same state – Fr. 91). This idea, in keeping with a general tendency toward Heraclitus, has been given a moralizing interpretation that completely negates its simple meaning. Schuster explains that no thing in the world can escape ultimate destruction (p. 201 f.), and Lassalle quotes as a counterpoint the verse: "Everything that comes into being is worth being destroyed" (I, p. 374). This completely misinterprets the deepest meaning of the idea. Heraclitus wants to contradict a teleological conception of being. <sup>2)</sup> He sees the "course of the world" as eternally the same, without beginning or end: κόσμον νον αὐτὸν ἀπάντων οὔτε τις

θεῶν οὔτε ἀνθρώπων ἐποίησε, ἀλλ' ἦν ν αἰεὶ καὶ ἔστιν καὶ ἔσται κίλ (this world the same as all, none of the gods or men made it, but it was always and is and will be, etc. – Fr. 30). The change of appearances is always the same, always repeating itself; this idea condensed into a doctrine of eternal return. Any attempt at a concept of development, such as that already proposed by Anaximander (the biological view), is completely absent here, as is any reference to the concept of causality. There is no better image for this idea than that chosen by Heraclitus himself: ποταμοῖσι τοῖσι αὐτοῖσι ἐμβαίνουσιν ἕτερα καὶ ἕτερα ὕδατα ἐπὶρρεῖ (to those who enter the same rivers, other and other waters follow – Fr. 12). We see the course of the world as if we were standing on the bank of a river; it flows incessantly, always the same, without beginning and end, without cause or goal. We can only understand the events in the cosmos by their character, not as an event in its entirety.

Heraclitus' view of life is a remarkable example of this idea: ὁ τῆς γενέσεως ποταμὸς οὕτως ἐνδε λεχῶς δέων οὔποτε στήσεται (the river of generation, flowing thus

1) The expression ὁδὸς ἀνω κάτω is found in relation to the phenomenal world: μεταβολὴν ὁρᾷς σωμάτων καὶ γενέσεως ἀλλαγὴν, ὁδὸν ἀνω καὶ κάτω, κατὰ τὸν Ἡ. (Maxim. Tyr. XII, 4 p. 489).

2) Teichmüller (I, 137) believes he has discovered a certain teleology, but is unable to prove it.

unceasingly, will never stop). <sup>1)</sup> Instead of the individual living being, he takes the entire sequence of a species as an indivisible whole, whose phases (the life of the individual) are only moments and stages of a great and uninterrupted metamorphosis. According to this more morphological than physiological view, life is to be thought of as an alternation of youth and old age, of increase and decrease in strength (Ἀνθρώπος, ὅπως ἐν εὐφρόνῃ φάος, ἅπτεται ἀποσ βεννυται: man, like a light in the night, goes on and off – according to Byw. Fr. 77, changed and expanded by Diels). This idea makes the meaning of the phrase ζῆν τὸν θάνατον (live the death) quite clear. In another saying: γενόμενοι ζῶειν ἐθέλουσι μόρους τ' ἔγειν. μᾶλλον δὲ ἀναπαύεσθαι καὶ παῖδας καταλείπουσι μόρνης γενέσθαι (born, they want to live and have their mortal destinies. Rather enjoy the rest, and leave behind them children for other mortal destinies to be begotten – Fr.20), the word ἀναπαύεσθαι, a rest between two periods of highest activity in life, is important in supporting this view.

1) Plut. cons. ad Apoll. 10. (See Bernays Rh. Mus. Vol. I, 50.) The preceding sentences contain Heraclitean thoughts and prove the above view: τ' αὐτὸ τ' ἐνὶ ζῶν καὶ τεθνηκὸς καὶ τὸ ἐργηγορὸς καὶ τὸ καθευδὸν καὶ νέων καὶ γηραιῶν· τάδε γὰρ μεταπεσόντα ἐκείνα ἐστὶ κάκεινα πάλιν μεταπεσόντα ταῦτα .... Οὕτω ἡ φύσις ἐκ τῆς αὐτῆς ὕλης πάλαι μὲν τοὺς προγόνους ἡμῶν ἀνέσχευεν, εἴτα συγχέας' αὐτοὺς One and the same thing in us the living and the dead, the awake and the sleeping, the young and the old; these, then, by changing, are those, and those, inversely, by changing, are

A consequence of the constant change in the sensory world, which must logically be extended to the perceiving human being, is doubt about knowledge. Before Heraclitus, no one had seen a problem here, and it is proof of great intellectual energy to have overcome the unconscious pride that a time in which philosophical thinking is just emerging tends to place. From the basic features of this doctrine, complete agnosticism could have developed, and Protagoras actually took this step, but Heraclitus was too powerful and positive to be led astray by a negative disposition of his philosophy, which actually justified him in not being mistrustful and dismissive of the main questions (as Lassalle wanted to suggest by quoting that Faust quote). <sup>2)</sup> Epistemology is not one of Heraclitus' important problems. Only because it casts the great main idea in a sharper light by demanding an insight into the restless, ever-changing character of the world and an overcoming of appearances can it be considered in this context. Fr. 21: θάνατός ἐστιν ὁκόσα ἐγερθέντες ὁρέομεν: death are all things that we see awake, that is: the external world appears to be at rest. Arist. Metaph. I, 6: ὡς αἰσθητῶν αἰεὶ ῥεόντων καὶ ἐπιστήμης περὶ αὐτῶν οὐκ οὔσης: because

these.... In this way nature brought forth our progenitors from the same matter of old; then, having destroyed them, she begot our parents, then us, then she will make others return upon others, and the river of generation, which flows without ceasing, will never stop).

2) p. 28. 31

sensible things are always in flux and because there is no scientific knowledge about them.

This skepticism is directed only against a science that bases itself on permanent conditions. Fr. 107: κακοὶ μάγντες ἀνθρώποισι ὀφθαλμοὶ καὶ ὦτα βαρβάρους ψυχᾶς ἔχόντων = bad witnesses for men are the eyes and ears of those who have barbarous souls; i.e. for people who uncritically remain at the level of mere sensory perception. All creations of culture, state, society, customs, views, are products of nature; they are subject to the same conditions of existence as the rest, to the strict law that nothing remains and everything changes. It is one of Heraclitus' greatest discoveries to have noticed this inner relationship between culture and nature. The resistance and balance of opposing tensions means for energetic events what war means for human existence. (Fr. 8: πάντα κατ' ἔριν γίνεσθαι = everything is produced by discord). War justifies the aristocratic hierarchy that Heraclitus loved. There can be no eternal and permanent relationships; gods and humans, free and slaves are subject to the law of necessary change. (Fr. 53) Heraclitus knew well that aristocracy in Greece at that time was doomed to perish.

In this chaos of transformations, there can be no lasting values; that is the ultimate consequence of such a view. This insight, against which the mind resists the longest, was emphatically defended by Heraclitus. We have before us a thoroughly thought-out system of relativism. Indeed, where there is no standstill and no

resting point, the concepts of ethics and aesthetics can only apply to the individual and only be applied on a case-by-case basis. This is the case with the appreciation of physical beauty (Fr. 82, 83), of wisdom (ανηρ νήπιος ἤκουσε πρὸς δαίμονος ἥκωσπερ παῖς πρὸς ἀνδρός: man can be called infant in comparison to god, as well as child in comparison of man – Fr. 79), of what is precious, pleasant, useful (ονους σύquar ἄν ἐλέσθαι μᾶλλον ἢ χρυσός: asses would choose garbage rather than gold – Fr. 9; Fr. 37, 58, 61, 110-111.) The values and qualities of things lie between two extremes and are only capable of subjective application.





## II. Second formulation: The struggle of opposites.

We learned about the idea of pure movement in the version πάντα ῥεῖ. There is a second form of the same idea, which differs only in the changed point of view of the observer. One can imagine the entire process of becoming as a unity; then one gets the impression of the beginning and the end, of the lack of a resting point and point of reference, of flow in the truest sense. We can then observe the same process with regard to its individual phases in juxtaposition and succession and compare the series of individual states according to their mutual relationship. These excerpts from the uninterrupted sequence of events (the things, states, properties of things are such), subjectively highlighted, are of different kinds, are mutually exclusive, and stand in contrast to one another. In this mental act lies the origin of contrast; it arises through comparison; a contrast can only lie in the relationship of one factor to another that is equally given. We have seen how the phrase πάντα ῥεῖ can have a twofold application. The doctrine of opposites follows from this.

It is erroneously claimed that Heraclitus denied opposites or declared them to be identical (Lassalle II, p. 266). On the contrary, Heraclitus emphasized opposites, precisely because he was an aristocrat who possessed

the “pathos of distance” to the highest degree and it did not even occur to him to want to weaken or deny differences. He does not speak of an identity of opposites as *contradictio in adjecto* but of an identity of the origin and relative character of opposites. It is not the opposition that is disputed, but its objective reality.

Heraclitus, however, usually says rather vaguely and misleadingly that two extremes are “the same”: ταὐτὸ τ’ ἐνὶ ζῶν καὶ τεθνηκός (are the living and the dead the same – Fr. 88), or: οὐδὲ σκότος οὐδὲ φῶς, οὐδὲ πονηρὸν οὐδὲ ἀγαθὸν ἕτερόν φησιν εἶναι ὁ Ηράκλειτος, ἀλλὰ ἓν καὶ τὸ αἰρό. (Heraclitus says that neither darkness and light, nor evil and good, are different things, but are one and the same thing. – Hippol. ref. haer. IX, 10.) Finally, in a statement against Hesiod, ὅστις ἡμέρην καὶ εὐφρόνην οὐκ ἐγίνωσκεν. ἔστι γὰρ ἓν" (who has not known day and night: they are therefore one and the same thing – Fr. 57.) According to all previous assumptions, this can only be a judgment about the form of these phenomena. They are equally moments in one and the same process, as contrasts that exist uniformly in an excitement of the senses and that only through this mutual contrast stand out from an infinity of events and thereby begin to exist for the senses. In a further statement: οὐ ξυνιᾶσιν, ὅπως διαφερόμενον ἐωυτῷ ὁμολογέει (they do not understand how the divergent agrees with itself – Fr. 51) the latter expression is undoubtedly chosen deliberately because of its relationship to λόγος, which in this doctrine denotes the

formal, lawful order.

'Ομολογεῖν can therefore be translated as: in accordance with form, with relation. The quotations cited are to be understood in this sense. It is only a matter of identity of form. The statement that good and evil are the same (Fr. 33 58 from Arist. Top. VIII, 5, 159b 30: ἀγαθὸν καὶ κακὸν εἶναι ταῦτόν) is therefore not to be understood in Nietzsche's sense. There is an even more precise explanation of this idea: ὥς Ἡράκλειτος τὸ ἀγαθὸν καὶ τὸ κακὸν εἰς ταῦτόν λέγειν συνιέναι δίκην τόξου καὶ λύρας (just as Heraclitus says that the good and the bad converge into the same, in the manner of the bow and the lyre – Simpl. in Phys. fol. 11a). Here again appears the familiar image in which the course of antagonistic becoming is excellently represented. Heraclitus' intention is unmistakable: the opposing facts are identical insofar as each only exists in relation to the other, through the existence of the other. In this mutual dependence, they are equal to each other. This idea is clearly expressed in the following aphorism: ταῦτ τ' ἔνι ζῶν καὶ τεθνηκός, καὶ τὸ ἐγρηγορὸς καὶ τὸ καθεῦδον, καὶ νέον καὶ γηραιόν. τάδε γὰρ μεταπεσόντα ἐκεῖνά ἐστι κάκεινα πάλιν μεταπεσόντα ταῦτα (One and the same thing are the living the dead, and the waking and the sleeping, and the new and the old. These, then, in changing are those, and those inversely in changing are these – Fr. 88). The reversal into the opposite is only possible under the condition of completely equal characteristics. We perceive the contrast in all its

strength; it was far from Heraclitus' intention to deny this; for us, opposites are the most real aspect of existence. But they are not things that exist in and of themselves, they are not permanent, and above all, they are not things that can exist without their opposite.

It is a great testament to Heraclitus' powers of judgment to have understood the phenomenon of opposites correctly, despite popular opinion and the powerful and deceptive judgment of the senses. Only in relation to each other and measured by us do opposing values arise. The many antitheses that characterize Heraclitus' style are meant to embody nothing other than this favorite idea. The subjective origin of value concepts means that properties must always lie between two extremes, in that the absence of one is equivalent to the existence of the other. Heraclitus used the phrase ζῆν τὸν θάνατον in the sentences: ζῆι πῦρ τὸν ἄερος θάνατον καὶ ἄηρ ζῆι τὸν πυρὸς θάνατον, ὕδωρ ζῆι τὸν γῆς θάνατον, γῆ τὸν ὕδατος (fire lives the death of air and air lives the death of fire, water lives the death of earth, earth the death of water – Fr. 76); ζῆν ἡμᾶς τὸν ἐκείνων (ψυχῶν) θάνατον καὶ ζῶν ἐκείνας τὸν ἡμέτερον θάνατον (we live the death of those [souls] and they live our own death – Fr. 77). Cf. Plut. de Ei 18, 392: πυρὸς θάνατος ἄετι γένεσις: the death of fire is birth for the air. (See also Fr. 62.)

In this sense, he approaches the problem of good and evil; not ethically, by regulating the application of these value concepts, but purely psychologically, by clarifying

their origin: ἀνθρώποις γίνεσθαι ὁκόσα θέλουσιν οὐκ ἄμεινον· νοῦσος ὑγίειν ἐποίησεν ἡδὺ, κακὸν ἀγαθὸν, λιμὸς κόρον, κάματος ἀνάπαισιν. (for men it is not better that everything they want happens: it is sickness that makes way to health, evil to good, hunger to satiety, fatigue to rest – Fr. 110-111; connected, separated by Diels without reason.)

The unpsychological desire to see evil banished from the world, which seemed to him extremely naive and a complete misjudgment of reality, has provoked a mocking remark against Homer. Good is not an unshakable value in and of itself, but rather the contrast and reflection of the evil that surrounds it. Heraclitus adds that we would lack not only the impression of this quality, but even its very concept, if its opposite did not exist: Δίκης ὄνομα οὐκ ἂν ἤιδεσαν, εἰ ταῦτα (scil. ἀδικία) μὴ ἦν. = you would not know the concept of justice if these things did not exist (i.e. injustice; Fr. 23.)

Opposites are not only necessary for their mutual existence; they have a decisive significance for the world process. Without existing differences, an event (which consists in the striving for equilibrium) is inconceivable. One of the first sentences of energetics is: “For something to happen, it is necessary and sufficient that uncompensated differences in the intensity of energy exist.” (Ostwald, Chem. Energie, p. 48.) Compare this with Heraclitus' words: εἰδέναι δε γρη τὸν πόλεμον ἔοντα ξυνόν, καὶ δίκην ἔριν, καὶ γινόμενα πάντα κατ' ἔριν καὶ χρεώμενα (one must know that war is common,

and justice is discord and everything is engendered by discord and necessity – Fr. 80) and: ὁ κυκεὼν διύσταται μὴ κινούμενος (the compound concoction dissolves if not stirred – Fr. 125).

Pythagoreanism, which in its emphasis on the metric and formal runs parallel to Heraclitus, arrives at a similar insight: παρὰ μὲν οὖν τούτων τοσοῦτον ἔστι λαβεῖν, ὅτι τάναντια ἀρχαὶ τῶν ὄντων (from these [the Pythagoreans] we may therefore learn that contraries are the principles of beings – Arist. Metaph. I, 5. 986 b. 9).

The contradiction of opposites appears to the artistic eye of this Hellene as ἀγών (struggle). This was again in keeping with his instinct for an unscientific but tangibly more plastic and sublime conception of the cosmos. And here he could be wholeheartedly involved. Probably none of these ancient philosophers represents the type of Hellenes of noble descent in their virtues and weaknesses as purely as he does. Certainly, no one in the development of his worldview has so unreservedly surrendered to the influences of his inclinations, desires, and feelings. The inclusion of the ἀγών in this intellectual creation is the most significant example of how the great impressions of his life and his longing for a shattered inner existence unconsciously shaped philosophical ideas without losing their full beauty.

The ἀγών <sup>1)</sup> is one of the most unique and significant creations of Greek culture. Without it, the life of the Hellenes in ancient times is almost unimaginable. The

gymnastic nature that formed its original meaning made it a customary exercise for this youthful people, who rejoiced in their strength and agility. In it the fullness of life, health, the feeling of power, the genuine Greek joy in beauty and symmetry of form. In this perfection, it was a privilege of the nobility (ἀθλητῆρες = athletes in Homer). But its significance goes deeper and is linked to the life interests of the entire people. The excessive, irresistible desire for glory, which no other people possessed to such an extent, found full satisfaction in the ἀγών and at the same time protection from the dangerous effects of this passion, which threatened to destroy the nation and did destroy it when the ἀγών in its classical form came to an end. This is where its great necessity for Greek culture lies. This custom slowly took hold in all circles and became a form of almost all expressions of life. Even war had an agonal character; people fought with weapons agreed upon in advance; <sup>2)</sup> in Homer, the masses of the warring people do not count, and the great ones rarely fall. An ἀγών was held on every occasion and for all conceivable things or advantages.

1) Curtius, *Altertum und Gegenwart* I, p. 132 ff.; L. Schmidt, *Ethics of the Greeks* I, p. 190 ff.; Burckhardt, *Greek Cultural History* IV, p. 89 ff.

2) As in the war between Chalkis and Eretria (Burckhardt I, p. 173).

There were competitions for physical beauty, <sup>1)</sup> for artistic achievements; <sup>2)</sup> rhapsodes, singers, poets, and historians competed against each other; we still find it in the political life of democratic Athens, where ostracism, through a certain equality, was intended to preserve the possibility of combat. The Greek mind was familiar with the idea of competitions between gods, forces of nature, virtues, even abstract concepts and greatness (the *φιλία* = love and *νεῖκος* = strife of Empedocles). In Heraclitus, artistic taste and aristocratic class consciousness came together. He loved this most distinguished habit of his caste for its beauty and bravery. With the naive confidence of youth, he formed a philosophical worldview according to his ideal way of life. The world is a terrible and eternal *ἄγῶν*, which is governed by strict laws of struggle. The struggle in nature is a compelling fact that every natural philosophy must reckon with, either in agreement or in regretful acknowledgment of the inevitable. For Heraclitus, there could be no doubt about this; this state of affairs corresponded to his inclination. The struggle created the hierarchy that he loved most: πόλεμος πάντων μὲν πατήρ ἐστι, πάντων δὲ βασιλεύει καὶ τοὺς μὲν θεοὺς ἔδειξε τοὺς δὲ ἀνθρώπους, τοὺς μὲν δούλους ἐποίησε τοὺς δὲ ἐλευθέρους (war is the father of all things and of

1) Krause, *Gymnastics* p. 357.

2) Plin. XXXIV, 53; XXXV, 58. 72. 37



all things is king; it makes some gods, others men, some it makes slaves, others free – Fr. 53).

It is the prerequisite for all events: Ηράκλειτος τὸ ἀντίξουν σύμφερον καὶ ἐκ τῶν διαφερόντων καλλίστην ἁρμονίαν [καὶ πάντα κατ' ἔριν γινεσθαι] (Heraclitus says that what is opposed becomes concordant and from the divergent is formed the most beautiful harmony, and that everything is engendered by discord – Fr. 8) and: καὶ γινόμενα πάντα κατ' ἔριν (and justice is produced by discord – from Fr. 80). Accordingly, struggle is justifiable (καὶ δίκην ἔριν: and justice discord – from Fr. 80). From this insight into the great necessity of struggle, not only as a natural phenomenon, but above all in history, one understands the accusation against Homer: τὸν μὲν Ὅμηρον, εὐχόμενον ἔκ τε θεῶν ἔριν ἔκ τ' ἀνθρώπων ἀπολέσθαι, λανθάνειν φησὶ τῇ πάντων γενέσει καταρώμενον, ἐκ μάχης καὶ ἀντιπαθείας τὴν γένεσιν ἔχόντων. (says that Homer, in vowing to extinguish discord between gods and men, does not realize that he imprecates against the generation of all things, those which have the generation of strife and antipathy – Plut. de Iside 48, 370.) In these sentences appears for the first time ever the insight into how dearly man must pay for the best of his culture with suffering and cruelty. For the brave spirit of Heraclitus, war holds no terror; he thinks of it with joy and longing. One must remember that in the ἀγών – and Greek warfare at that time was nothing else – strict and measured forms were observed, that among the

Hellenes it was intended above all to have an effect on the eye, in order to understand how the concept of harmony could develop here. The right, measured relationship between opposites in battle appears to the spectator as such (ἐκ τῶν διαφερόντων καλλίστην ἁρμονίαν: the most beautiful harmony is born of the divergent – Fr. 8). Before his eyes, the battle dissolved into harmony. Heraclitus, however, presupposes a great aesthetic ability to not only perceive harmony as such but also to enjoy it. (Τῷ θεῷ καλὰ πάντα καὶ ἀγαθὰ καὶ δίκαια, ἄνθρωποι δὲ ἃ μὲν ἄδικοι ὑπειλήφασιν, ἃ δὲ δίκαια: for the god all things are beautiful and good and just; men, on the other hand, consider some unjust, others just – Fr. 102. By θεός, Heraclitus here means a spirit of the highest conceivable ability; only such a spirit can find great and undivided harmony in the cosmos.) He also notes gradations of harmony: ἁρμονίη φανερὴ ἄφανῆς κρείττων (the hidden harmony is superior to the manifest one – Fr. 54).

This idea already contains the metrical principle. Heraclitus and the Pythagoreans discovered and used this genuinely Hellenic idea of the value of (mathematical) formal relationships, the former out of his artistic sensibility, the latter as a result of mathematical considerations. The oldest writer on Pythagoreanism, Philolaos, gives a definition of the term entirely in the Heraclitean sense: πολυμιγέων ἔνωσις καὶ διχᾶ φρονεόντων ὧν συμφρασις (harmony is the unity of many things mixed and the context of divergent

meanings – Nicom. Arithm. p. 59), and Aristotle confirms this teaching of the Pythagoreans: τὴν ἁρμονίαν κρᾶσιν καὶ σύνθεσιν ἐναντίων εἶναι (harmony is fusion and synthesis of opposites – de anim. I, 4 at the beginning). <sup>1)</sup>

According to Heraclitus, the cosmos is a pure and eternal event. The only constant in this process is mass. Ἀρμονία is the same as λόγος (reason, measure). The theory of this concept forms the second part of the problem.

1) Cf. Bauer, Der ältere Pythagoräismus, p. 23 ff. Zeller, Phil. d. Griechen, I, p. 401 ff.



## B. The formal principle.

### I. The idea of form in general.

The general, or more correctly, the naive and more primitive conception of things is directed toward a comprehension of substance, of its inner essence. Only an advanced analysis of the process of cognition teaches us that the world we perceive is a creation of the senses and that the idea of matter (and energy) itself is a construct of our thinking. This gives another element of appearance, namely form or mathematical relationship. Through the idea of a substance and the properties conceived in it, we form a picture of the inner structure of things in order to explain natural processes completely.

Once we have recognized that it is impossible and even absurd to unlock nature in this way, we will refrain altogether from to give a visible representation of its innermost nature. It then seems obvious to find the important and significant aspects of phenomena in their mathematical dimensions, in their formal relationships. It is even possible to determine natural phenomena completely in purely numerical terms without adding a hypothesis about their "essence," and this exhausts everything that can be determined with certainty as a result of the limitations of cognitive activity through the

investigation of the relationships between objects and between objects and the subject can be determined with certainty. (An example is Hertz's electromagnetic theory of light, which is defined exclusively by a number of equations.) The Pythagoreans and Heraclitus discovered this valuable and fruitful aspect of phenomena and were the first to subject it to observation. In emphasizing the formal over the material, we must once again point out the important difference in the decomposition of what is given in perception into its components. Materialistic natural science and most modern philosophers distinguish between mass and energy as subordinate quantities, like Descartes' substances and Spinoza's attributes. Heraclitus, most Greek philosophers, and also contemporary energetics distinguish between substance and form. Substance is to be understood here as the sum of everything that appears to us (mass energy, if you will, as opposed to the sum of all natural laws, which is to be regarded as "form." Aristotle distinguished similarly between  $\upsilon\lambda\eta$  = matter and  $\mu\omicron\rho\phi\eta$  = form; Heraclitus, the "becoming" as a given thing, the  $\lambda\acute{o}\gamma\omicron\varsigma$  as its form). Substance is not broken down into parts or functions; rather, apart from this absolutely given thing, only its form is of interest, which is represented in a series of (numerical) relationships.

There can be no doubt about the value of form in this sense. The lawful relationship is the only constant in natural processes. "If one could measure all sensory elements, one would say that the body consists in the

fulfillment of certain equations that exist between the sensory elements. These equations or relationships are therefore the actual constant.” (Mach, *Principles of Thermodynamics*, p. 423). The deeper thought penetrates into nature, the more numbers gain in importance over images. Form has a cognitive value. It was in this respect that they came to appreciate the Pythagoreans. Philolaus teaches: καὶ πάντα μὲν τὰ γινωσκόμενα ἀριθμὸν ἔχοντι. οὐ γὰρ ὅτιῶν οἶόν τε οὐδὲν οὔτε νοηθῆμεν οὔτε γνωσθῆμεν ἄνευ τούτω. (the known things have a certain number. For it would not be possible for any of them to be thought or known without – Stob. Ecl. 22, 7. p. 456.) For Heraclitus, whose inclinations took a completely different path and whose taste in the events of the world admired above all the harmony of relationships, the aesthetic value of form, i.e. in relation to becoming, whose rhythm is taken into account.

Λογος (reason) is identical with μέτρον (measure) for Heraclitus. This term does not denote a force, much less an intelligence, but rather a relationship. This concept, which was lost in later Greek philosophy, has mostly been misunderstood under the influence of Stoic, Christian-Hellenistic, and above all our dualistic views. Modern dualism stems from the Christian worldview, from which and against which more recent philosophy has developed. It is natural that belief in a world order of some kind influences the formation of metaphysical ideas. The Christian antithesis of world and God, which

dominated medieval natural philosophy, continued in a series of further antitheses: thought and extension, intelligence and substance, matter and energy. Despite growing abstraction, the basic division has remained the same. The Greek is under the influence of a different worldview. He did not perceive the gods as rulers. They are amiable and helpful companions of man, with whom they share virtues, weaknesses, pain, misfortune, passions, and powerlessness, and with whom they are subject to the same superior fate. The concept of the *εμπαρμένη* (fatality) is decisive for Greek philosophy. The *εμπαρμένη* is completely impersonal; it has never been depicted in the visual arts; they are an inexorable law, fixed for all time and inescapable. The Hellenes could speak of the gods with joy and contentment, but they thought of the *εμπαρμένη* with quiet dread. They are familiar from Greek tragedy, whose ultimate meaning is a resigned acceptance of this terrible power. In this belief found the secret certainty that ultimately something determines the course of events, that nothing human, no soul, is determined by any will, reason, or feeling, and is not accessible to any request, the same belief that in philosophy becomes a knowledge of the *ανάγκη* = necessity (the *λογος* = reason), the universal law of the world. This: to allow no exceptions is the early great insight of Heraclitus, which he owed to that belief. Except for Socrates, none of the Greek philosophers knew a personal God; *Θεός* is a physical concept in their mouths; for scientific insights into nature, Olympus never came into consideration.



Thus, one knows only the visible world in which one lives, the cosmos, and nothing else. Nothing led to the assumption of a substantial energy or world soul. The law lies in the world as a relationship, whether it be called θεός, λόγος, ἀνάγκη, or τύχη. It is important to note that all these concepts are derived in a direct line from the concept of fate as a norm and legal cause of change. The λόγος (reason) is the εἰμαρμένη (fatality), an immanent fate, not a personal cause, which was not misunderstood in ancient times: ἦν (ἀνάγκην) εἰμαρμένην οἱ πολλοὶ καλοῦσιν· Ἐμπεδοκλῆς δὲ φιλίαν ὁμοῦ καὶ νεῖκος· Ἡράκλειτος δὲ παλίντροπον ἁρμονίην κόσμου ἥκωσπερ λύρας καὶ τόξου (what (necessity) the majority call fatality; Empedocles calls friendship and hatred together; Heraclitus, harmony by opposite tensions, like that of the lyre and the bow – Plut. de anim. proer. 27 p. 1026).

Heraclitus conceives of the world as pure movement. The λόγος is therefore its rhythm, the beat of movement. In this system, which knows no persistent being, is the appreciation of the metric. Let us recall once again the extent to which the Greeks developed a sensitivity for forms; it was not limited to the visual arts; all expressions of life occur involuntarily within the limits of a certain measure (this is the meaning of καλοκαγαθία = probity, σωφροσύνη = prudence, αὐτάρκεια = moderation, and all similar ideals of Hellenic life). Today, we perceive this entire culture as a work of art in its own right.

Heraclitus had emphasized harmony in the struggle of opposites. This harmony is a metric one. Several sayings of this kind have been preserved have been preserved: Κόσμον τὸν αὐτὸν ἀπάντων οὔτε τις θεῶν οὔτε ἀνθρώπων ἐποίησε, ἀλλ' ἦν αἰεὶ καὶ ἔστι καὶ ἔσται πῦρ αἰεζῶον, ἀπτόμενον μέτρα καὶ ἀποσβεννύμενον μέτρα (This cosmos, the same as all, was not made by any of the gods or men, but always was, is and will be ever-living fire, which is kindled according to measure and extinguished according to measure – Fr.30), “Ἡλιος γὰρ οὐχ ὑπερβήσεται μέτρα· εἰ δὲ μὴ, Ἐρινύες μιν Δίκης ἐπικούροι ἐξευρήσουσιν (he sun will not trespass his measures; otherwise the Erinyes, ministers of Justice, will know how to find him – Fr. 94). Θάλασσα διαχέεται καὶ μετρέεται εἰς τὸν αὐτὸν λόγον ὁποῖος πρόσθεν ἦν ηγεγνίσθαι γῆ (spills back into sea and has its measure in the same proportion as it had before it became land – Fr. 31: “The transformation of water takes place in the same mathematical ratio”). It is clear from this that in cosmic processes of all kinds a μέτρον (measure) is contained. One may assume that the repeated mention of the δικε (justice) is intended to emphasize the strict regularity of this relationship. In any case for Heraclitus, the value of the mathematical form of natural processes is very high.

It would still be necessary to ask about the relationship of this idea with the corresponding idea of Pythagoras. Pythagoras himself, about whose own teachings nothing is certain, and who, according to general assumption, was not a writer, is mentioned once

by Heraclitus, and then only because of his scientific method. <sup>1)</sup> A relationship of dependence can never be proven. It is as unlikely as it is unimportant. Only the actual parallelism of the two systems is of interest. The oldest Pythagoreanism begins with the observation of the existence of mathematical relationships in all forms and processes of nature. The doctrine of numbers is only a later conclusion from this fact. <sup>2)</sup> One proceeds from the distinction between matter and form (απειρον-περας = infinite-finite), entirely in the spirit of Heraclitus (τα πάντα: the totality of things, κόσμος: the world, λόγος: reason, law, μέτρον: measure). A passage from Philolaos makes this parallelism clear: 'Ανάγχα νὰ κόρρα εἰμὲρ νάνια ἢ περαίνοντα ἢ ἄπειρα ἢ περαίνοντά τε καὶ ἄπειρα ἐπεὶ τοίνον φαίνεται οὕτ' ἐκ περαίνόντων πάντων ἔοντα οὕτ' ἐξ ἀπείρων πάντων, δῆλόν τ' ἄρα, ὅτι ἐκ περαίνόντων τε καὶ ἀπείρων ὁ τε κόσμος καὶ τὰ ἐν αὐτῷ συναρμόχθη (it is clear that things are either all limited or infinite, or limited and infinite together; since, therefore, it is manifest that they are (constituted) neither of all limited (elements) nor of all infinite; it is clear, therefore, that the cosmos is constituted of all limited (elements) and infinite, harmoniously ordered).

One can see the similarity between the two views, but they are limited to the most general basis. The formal aspect of Philolaus, which is to be understood as the geometric-arithmetic determinability of things, subsequently became something quite different from Heraclitus' μέτρον, which is to be regarded as the

measure of time in motion. The problem itself is a generally Hellenic one; the details of its formulation are entirely individual.

1) Fr. 40 and similarly Fr. 129. The latter is declared by Diels to be *unecht*, but its content is confirmed by 40 and 80.

2) Cf. Bauer, *Der ältere Pythagoräismus* p. 200 ff. Aristotle presented number theory in a contradictory and certainly incorrect manner. Philolaos is the oldest and most reliable author (Bauer p. 181 ff.). The idea of number as *dogy tov övrov* (Arist. *Metaph.* I, 5. 985 b. 23) is a distortion of the original teaching originating from later Pythagoreans.

## II. Form as a condition of movement.

The idea of the value of measure has a special meaning for Heraclitus. In a world without any material quality, which is nothing but a ceaseless striving of differences within the course of a movement, there is nothing permanent except measure. If we seek we seek to determine precisely the relationship between measure and movement, we obtain its character as the form of movement. This already expresses its absolute necessity for movement. Movement is as inconceivable without a form as a body without shape. The word rhythm is most appropriate for this principle, which takes into account the rhythm of becoming, for it is certain that Heraclitus perceived above all the artistic and musical aspect of this idea and wanted to capture it. The Greeks demanded beauty of proportions in everything created for the eye. No one made an exception. Anaxagoras attributed beauty and (aesthetic-ethical) perfection to his νοῦς (spirit); for more recent philosophers, it would have been love and compassion. "Wisdom," that is, perfect logic and clarity in all actions, was one of the first characteristics of Greek beauty. Heraclitus once uses the expression τὸ σοφὸν (the wise) for the principle: "Ἐν τὸ σοφὸν μόνον λέγεσθαι οὐκ ἐθέλει καὶ ἐθέλει Ζηνὸς οὔνομα (the One, the only wise, does not want and yet wants to be called by the name of Zeus – Fr. 32). The ὁδὸς ἄνω κατω (way up and down) is definitely to be

understood rhythmically; it is the arsis and thesis of Greek meter. To put oneself in Heraclitus' idea of rhythmic flow, one could one could imagine the rhapsodic recitation of Homeric verses. Ἀρμονίη (harmony) is the λόγος (reason, law), insofar as it is beautiful (hence, καλλίστη ἁρμονίη: the most beautiful harmony – Fr. 8), and indeed the invisible rhythm of the great world events, which possesses flawless harmony, the more beautiful one. (Fr. 54). The important passage reads in full: Ἀρμονίη ἀφανὴς φανερῆς κρείττων, ἐν ἣ τὰς διαφορὰς καὶ τὰς ἑτερότητας ὁ μὶγνύων θεὸς ἔκρυσσε καὶ xavédvoer. (the hidden harmony is better than the manifest one; in it God, blending differences and diversities, concealed and submerged them – Plut. de anim. procr. 27 p. 1026.)

The rhythm of movement obeys a law. The reference to the lawfulness of nature is a new idea in Greek philosophy. Anaximander and Xenophanes are not yet familiar with it. The expression νόμος (law) for ἁρμονίη, λόγος (harmony, reason) is characteristic of Heraclitus: ξὺν νόῳ λέγοντας ἰσχυρίζεσθαι χρὴ τῷ ξυνῶν πάντων, ἥκωσπερ νόμῳ πόλις καὶ πολὺ ἰσχυροτέρως, τρέφονται γὰρ πάντες οἱ ἀνθρώπειοι νόμοι ὑπὸ ἑνὸς τοῦ θεοῦ· κρατεῖ γὰρ (it is necessary for those who speak intelligently to stand firmly on what is common to all, as well as a city on the law, and much more strongly. For all human laws are nourished by the one divine law; this, then, rules as much as it wills, and it is sufficient for all things and is superior to them – Fr. 114). It should be

noted that the term νόμος is more comprehensive than our “law,” encompassing not only the actual laws, but the entire sum of institutions, customs, constitution, and administration of the πόλις (state), i.e., the complete rules and forms of public life. Thus the application of the term νόμος to the manner of becoming is to be understood. The difference between human and divine, i.e., physical laws in the aphorism just quoted coincides with the distinction between visible and invisible harmony (Fr. 54).

It is striking at first and has given rise to errors that Heraclitus used a large number of terms (λόγος, νόμος, ἄρμονιη, τὸ σοφόν, μέτρον, γνώμη, εἰμαρμένη, δίκη, Θεός, Ζεὺς = reason, law, harmony, the wise, measure, intelligence, fatality, justice, God, Zeus), <sup>1)</sup> all of which could have been replaced by an apt and exhaustive expression. Surely only the lack of such an expression for this specific, newly created idea led to that. Λόγος is the most satisfactory of terms; it contains features of this principle that can only be expressed individually with νόμος or ἄρμονιη. There is no identity between these terms, only an identity between the ideas they represent. They are intended to replace that one non-existent term and are therefore used interchangeably, depending on the relationship that is currently under

1) The expression δόγμα (doctrine), which also occurs, is apocryphal (Bernays, Rhein. Mus. IX, p. 248).

consideration and which they best reflect.

Thus, we find once γνώμη (intelligence): Εἶναι γὰρ ἓν τὸ σοφόν, ἐπίστασθαι γνώμην, ὅτῃ ἐγκυβέρνησε πάντα διὰ πάντων (Only one thing is wise: to know the Intelligence that governs all things by means of all – Fr. 41). Noteworthy is the word κόσμος (order, universe) for the overall impression of the world around us. Κόσμος, in Heraclitus, does not yet have the comprehensive, substantial meaning of “universe”; this word was first used by him and Pythagoras in a philosophical sense and, according to its origin, has the meaning of “order.” The phrase κόσμος ὁ αὐτός πάντων (Fr. 30. Gomperz translates: This one order of things, the world. Schuster: The one world that encompasses everything within itself) is almost identical for Heraclitus with visible harmony: the strictly formal order in the course of events, which is visible and the same for all (Fr. 89: τοῖς ἐγρηγοροῦσι ἓνα καὶ κοινὸν κόσμον εἶναι = for the awakened there is a single common cosmos). Κόσμος can therefore only the impression of the phenomenal world, the whole picture of nature that unfolds before our senses, not the world as mass.

The most important term, according to Heinze <sup>1)</sup> of Heraclitus in this sense, is λόγος. It has already been pointed out earlier that there is a tendency to see Heraclitus as a pantheist and mystic. Nowhere has this been more significant than in the assessment of this concept. Zeller (I, p. 555) finds here the explicit “pantheism,” Pfeiderer (p. 132 ff.) constructs a



connection with the mysteries, Teichmüller has interpreted Heraclitus as a religious fantasist. The term λόγος is always brought close to the concept of God. Pfeleiderer translates "conscious intelligence" (p. 234 ff.), Bernays similarly "acting intelligence" (Rhein. Mus. IX, p. 252), Teichmüller "world soul" (I, p. 198), Schuster "the intelligence stirring in the burning fire" (p. 345), in stark contrast, but correctly, "law of motion" (p. 93), Schäfer "world reason" and "all-ordering force" (p. 55). To avoid these often completely unclear concepts of a being, Lassalle's expression "objective law of reason," which is too reminiscent of the νοῦς of Anaxagoras, is also unsuitable.<sup>3)</sup>

1) Doctrine of the Logos, p. 9. Also according to Lassalle II, p. 264.

2) Tannery goes furthest (Rév. philos. 1883, XVI, p. 292): Au milieu des "physiologues" ioniens, Héraclite a une position tout spéciale, ou plutôt il n'est rien moins que physiologue, c'est un "théologue".

3) Teichmüller (I, p. 167-181) provides a detailed compilation of the meanings of λόγος in the pre-Heraclitean period. Nowhere here does one find the meaning of reason, but rather meaning, content of thoughts. Heraclitus uses the word in very different ways. Fr.45: ψυχῇ πείρατα ἰὼν οὐκ ἂν ἐξείροιο, πᾶσαν ἐπιπορευό μενος ὁδόν· οὕτω βαθύν λόγον ἔχει (roughly disposition, education, organization); Fr. 108: ὁζόνων λόγους ἤζονα ... (dispute); Fr. 87: βλάξ ἄνθρωπος ἐπὶ παντὶ λόγῳ ἐπτοῆσθαι φιλεῖ (word); Fr. 139: οὗ πλέων λόγος ἢ τῶν ἄλλων (of which there is talk). In any case, it follows from this that the meaning intelligence is impossible.

A translation must be dispensed with; the entire meaning of this concept cannot be exhausted by any of the newer philosophies. Heinze (p. 19) recognized the identity of λόγος and εἰμαρμένη (fatality); from this follows the completely impersonal and mechanical in λόγος. Likewise, the identity with νόμος (law), μέτρον (measure) and ἁρμονίη (harmony) is certain. In the vicinity of these words, λόγος cannot remotely have the meaning it later assumed in Hellenistic-Christian philosophy. This transformation was carried out by the Stoics, who equated Heraclitus' λόγος (as πνεῦμα: breath) with the active principles of philosophy since Anaxagoras (νοῦς: intellect, δημιουργός: creator) and, with the Heraclitean fire (in memory of the fire atoms of the soul in Democritus), to a transcendent, acting, substantial world soul, λόγος σπερματικός (seminal reason), which stands in opposition to the other substances that behave passively. Thus, Heraclitus' becoming (πάντα ρεῖ = everything flows) is transformed into material movement (ποιεῖν καὶ πάσχειν: acting and suffering) and the entire system is made materialistic.

Heinze, who suggests expressions such as “law of reason,” “rational world process,” and “rational relationship” for λογος (p. 35), adds: “We have come to know this law as the logos that reigns in everything in its more detailed definitions, and we need only emphasize that it is entirely immanent in the world, never conceived as transcendent; it is materially conceived as fire, and fire is spiritualized as the Logos”

(p. 24). This is not correct. One has becoming and the law of this becoming; an identity of πῦρ (fire; a mode of appearance of becoming) and λογος is impossible in principle. Let us note that this is a law according to which movement takes place: γινομένων γὰρ πάντων κατὰ τὸν λόγον τόνδε ἀπείροισιν εἰκόσιν (even everything that happens according to the Logos resembles the inexperienced – Fr. 1). Θάλασσα μετρεῖται εἰς τὸν αὐτὸν λόγον (the sea is measured according to the same Logos – Fr. 31). The phrase κατὰ τὸν λόγον (according to the Logos) yields the meaning with complete certainty. The designations θεὸς (God) and Ζεὺς (Jupiter) <sup>1)</sup> are to be understood as the absolute necessity and power of the λογος (cf. Fr. 114: κρατεῖ γὰρ τοσοῦτον ὁκῶσον ἐθέλει καὶ ἐξαρκεῖ πᾶσι καὶ νεκρίνεται = it rules as much as it wills and suffices all things and is superior to them). The same purpose is served by the term, familiar to a seafaring people, of steering, which here is intended to convey both necessity and expediency. (Fr. 64: τὰ δὲ πάντα οἰακίζει κεραυνός = all is ruled by lightning; Fr. 41: γνώμη, ὅτῃ ἐγκυβέρνησε πάντα διὰ πάντων = the intelligence that rules everything by means of everything; cf. Pseudo-Linus 13, Mullach: κατ' Ἐρινὸν οὐνάπαντα κυβερνᾶται διὰ παντός = according to the discord everything is ruled as a whole; Fr. 94 belongs here: Ἥλιος γὰρ οὐχ ὑπερβήσεται μέτρα· εἰ δὲ μὴ, Ἐρινόες μιν Δίκης ἐπικούροι ἐξευρήσουσιν = the sun, then, will not pierce its measures: otherwise the Erinyes, ministers of Justice, will know how to find it.)

Λογος is the formal law of becoming and, as such, necessary for its conception. Movement without form is inconceivable.

1) Fr. 32: Ἐν τὸ σοφὸν μόνον λέγεσθαι οὐκ ἔθλει καὶ ἔθλει Zyvos οὐνοῦα. According to Diels and others, this refers to the difference between the popular idea of a personal god and the philosophical (physical) application of the name. According to Bernays (Rhein. Mus. IX, 257), Ζεὺς was chosen because of its resemblance to ζην (live).

### III. The idea of unity and necessity.

The idea of a law existing within nature was new. Heraclitus went even further and found that a single law is decisive for the totality of all processes. Xenophanes had also found the idea of an inner unity of the world and made it the center of his teaching. His *εν και παν* (one and all) meant a unity of being in the absolute sense, without any determination of the content of this concept. This is something essentially different and more imperfect. Xenophanes knows no norm, no form or quality of being, only the world and "God," which are one. His unity is both qualitative and conceptual, a completely general and pantheistic idea. For Heraclitus, since a substance is not assumed, this determination can only refer to the form of the energetic process and assume it to be constant and regulated. One must understand the great difference. Heraclitus' idea is concretely defined and clearly presented; the unity is that of *λογος* within movement. All changes taking place in the cosmos are subject to the same rule. We find the effects of this one and eternal law in invisible becoming, in visible nature, in life, in culture. The law of eternal recurrence is the same in the big picture as the change of life and death and the upheavals of states, customs, and cultural conditions in the small. That is why Heraclitus calls the *λογος* (Fr. 2) and *πολεμος* (Fr. 80) *ξυνος* = common, (cf. also *εν το σοφον*: the one wise – Fr. 32).

Here we must once again recall the harmony that is based on the assumption of an equal rhythm in all processes. From this assumption, which contains a common rule for all events occurring alongside and after one another, and thus already excludes an end to the world, follows the congruence of all physical, ethical, social, and other laws and, at the same time, their necessity and logical consistency. The sentence: τρέφονται πάντες οἱ ἀνθρώπειοι νόμοι ὑπὸ ἑνὸς τοῦ θεοῦ (thus are nourished all human lives by the one divine – Fr. 114) can be taken as proof of these far-reaching conclusions. All the relationships and conditions on which the life of individuals and entire communities depend are the laws of the cosmos, which prevail here in a different form, and therefore equally unconditional, inevitable, defying any attempt to escape them, a profound and terrible realization that was fitting for this unyielding and courageous personality. There is a strong fatalism in this. This does not contradict the Hellenic sensibility; ἐμπαρμένη (fatality) is the only dogma that none of their thinkers had any doubt. The Hellenes loved to imagine this ἐμπαρμένη, which lay silently like a storm cloud over men and gods and could send down unexpected destructive lightning bolts at any moment, with a secret delight in the horrible. From this arose the tragedy. Indeed, one cannot conceive of a better concept of the law that governs the cosmos than when one chooses the fate that reigns, for example, in the life of Oedipus as a comparison. Invisible and inevitable, it is silent, but all the more impressive for

that. Heraclitus' conviction of the existence of the εἰμαρμένη of his teaching is deeply imprinted in the idea of the Logos. It is probable that he used the expression εἰμαρμένη precisely for λόγος. In any case, both are the same, as one can see; the equality of both concepts was generally felt: Ἡράκλειτος οὐσίαν εἰμαρμένης ἀπεφήνατο λόγον τὸν διὰ οὐσίας τῆς τοῦ παντὸς διήκοντα· αὕτη δ' ἐστὶ τὸ αἰθέριον σῶμα, σπέρμα τῆς τοῦ παντὸς γενέσεως· καὶ περιόδου μέτρον τεταγμένης· πάντα δὲ καθ' εἰμαρμένην, τῶν δ' αὐτὴν ὑπάρχειν καὶ ἀνάγκην· γράφει γοῦν· "Ἔστι γὰρ εἰμαρμένη νάριος (Heraclitus showed that the essence of fatality is the reason that penetrates through the substance of the universe. This is the ethereal body, seed of the generation of the universe and of the (cosmic) cycle, ordered according to measure. Everything is produced in accordance with destiny, and this is also the necessity. He writes, then: There is a fatality in everything. – Stob. Ecl. I, 5 p. 178). <sup>1)</sup> Diogenes Laertius also notes on his teaching: πάντα τε γίνεσθαι καθ' εἶμαρ μένην (everything happens according to a fatality – IX, 7) and: τοῦτο (= τροπαί) δὲ γίνεσθαι καθ' εἶμαρ μένην (these [changes], happen according to fatality – IX, 8). Finally, the expression is mentioned three times by Aëtius as Heraclitean (Diels Appendix B. 8). It is therefore very likely that Heraclitus also used the word for the corresponding idea. This similarity between λόγος and εἰμαρμένη must render impossible the opinion that λόγος is a personal or at least intellectual principle. Any conceivable intelligence, whether understood as God,

world soul, or something else, is thus already subordinate to the εἰμαρμένη. This is required by the Hellenic belief, which places fate unconditionally at the top. In this system, there is no room for even the slightest coincidence. Hesiod, who believed in the predestination of certain days, thereby invited Heraclitus' mockery, who regarded the assumption of mysterious "powers" as naivety (Fr. 57). According to his conviction, any possibility of deviation from the lawful course of events is unthinkable.

Heraclitus's world of thought, viewed as a whole, appears as a grandly conceived poem, a tragedy of the cosmos, equal to the tragedies of Aeschylus in their powerful sublimity. Among the Greek philosophers, with the possible exception of Plato, he is the most important poet. The idea of an eternal and never-ending struggle that forms the content of life in the cosmos, in which an imperious law reigns and a harmonious regularity is maintained, is a high creation of Greek art, to which this thinker was far closer than to natural science proper. A final thought, in which he surveys the world and rejoices in the effortless, innocent, and painless nature of its becoming and acting, has been preserved: αἰὼν παῖς ἔστι παιζὼν πεσσεύων · παιδὸς ἢ βασιλῆϊ: time is a child playing with dice: of a child is the kingdom. <sup>2)</sup>



1) Fr. 137, quoted by Diels with some doubt. What matters here is only the general idea.

2) Fr. 52. In Luc. vit. auct. 14: παῖς παίζων πεσσεύων, συνδια βασιληΐη (Bernays). Zeller sees here an image of the aimlessness of the world-forming force (I, p. 536), Bernays an image of the construction and destruction (Rhein. Mus. VIII, 112), Teichmüller (II, p. 191 ff.) recognizes the effortlessness and lightness in this idea.