Liou Kia-bway

THE CONFIGURATION OF CHINESE REASONING

This study is divided into two distinct sections, *introduction* and *elaboration*.

The reader will undoubtedly notice a disproportion in this article because the introduction is as long as the section intended to prove the hypothesis which it develops. This is due to the fact that we Chinese have no very clear awareness of our logical processes and hence of our so-called reasoning. We must therefore track down those arguments that are entirely free from verbal misrepresentation and try to make clear their structure. Our comparative research enables us to state the following: in contrast to Western reasoning, which is always very explicit in form and whose logical sequences are closely knit, Chinese thought is but a series of independent experiments that add up to no well-defined order and have no internal interrelationship. From this lack of logical sequence all Chinese philosophers derive their initial inspiration; they then enlarge their understanding by analytical thought. This basis, which

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is common to all Chinese thinkers, no matter how divergent or antithetical their tendencies, is nothing more than the concrete and indivisible whole, which we will investigate, in our own fashion, in the introduction. We mention this merely to caution the reader who is unaccustomed to the confusing complexity of Chinese thought.

The whole is not a mathematical whole but something experienced and elaborated by early Chinese philosophers. "The whole is the sum of its parts," even though Confucius and Mo-tseu made use of this mathematical whole to enlighten their disciples or to refute their detractors; it is not a logically organized whole, a whole whose parts follow one another and in which chance represents only an imperfect knowledge of man, who is unable to embrace the whole in its constituent parts; it is not even entirely the whole whose parts are inextricably interdependent and in which each part somehow comprises the other parts. It is, rather, the original whole, the sum of all the parts, which makes each concrete part and all the other equally concrete parts possible, a sum total, the adequate experience of which entirely escapes man's understanding in its human potentialities; in other words, the universe that constitutes the sole positive reality in the eyes of Western science is no more than an indefinite series of symbols, basically inadequate. Such symbols have true significance solely in the sum total that confers a living value upon them.

I. PRELIMINARY SECTION

All man's reasoning, unquestionably, takes place solely at the level of ideas abstracted from the concrete and indivisible real, and thus Chinese thought, like Western thought, is founded necessarily upon human abstractions. The fundamental difference between Western and Chinese reasoning consists only in this: the first presupposes well-defined ideas, each of which represents an abstract and exclusive whole and which, taken together, constitute a closed system of universals, independent of any concrete experience; whereas the second uses well-known ideas as a springboard to explore hitherto unsuspected ones. By multiplying the sudden leaps from the order of well-known ideas to that of less familiar ones, the classical Chinese thinker ultimately discovers the common basis that links all his apparently dissimilar ideas. It follows that the ideas contained in all Chinese reasoning are necessarily inadequate and that each of them is an abstract and very fluid whole in relation to the unique and indecipherable basis that binds them together in an indivisible whole.

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In order to prove our hypothesis about the specific structure of Chinese reasoning let us first analyze an important passage in Confucius. The Master says: "I do not awaken a man who does not care to understand; I do not help a man to speak if he does not wish to express himself. If I show someone an angle he will not be able unaided to understand the three other angles. And I will not begin my lesson all over again for that man."¹

From this text of Confucius it is easy to perceive the first form of an analogical deduction that operates at the level of a geometric whole and whose form is as follows: in looking at a Chinese table whose customary shape is a square, one readily sees that the four angles of the table are absolutely identical in form. If Confucius demonstrates that one of the four angles is a right angle, one must conclude, because of the symmetry, that the three other angles are also right angles. In short, according to the deduction that emerges plainly, is it not true that Confucius reasons like a geometrician in the midst of homogeneous space? Thus he necessarily takes cognizance of an abstract whole because the sum of the four angles in question constitutes a whole independently of the concrete table.

We also know that in the same text Confucius, not content with this purely geometric reasoning, wants to imply a broader pedagogical procedure, one best illustrated by the use of reasoning through analogy: if a person could understand thoroughly a given period of history, he would then be able

¹ Séraphin Couvreur, Les quatre livres: Entretiens de Confucius et de ses disciples, p. 139, 8. Ed. Société d'édition des belles lettres, Paris, 1950.

to acquire adequate knowledge of all the other periods.² This kind of Confucian logic would scandalize a Western historian who is accustomed to lengthy investigations of facts in accordance with the tenets of historical scolarship. But it might very well inspire any connoisseur of human beings to reflect upon the good and evil of a period experienced by his contemporaries and thus to penetrate into the secret workings of men who are forging their own history.

Because Confucius finally compresses all his special knowledge into a connecting entity,3 it is logical to imagine a final form of Confucian logic like the following: the carefully investigated knowledge of one concrete fact reveals knowledge of other equally concrete facts; the deepest knowledge of basically concrete and identical data finally reveals knowledge of the total and profound truth that exists in each concrete part

² The following is a translation of the text in Confucius' Conversations from which we have taken this example:

Tseu-tchang (an enthusiastic disciple of Confucius) asks if it is possible to foretell anything about the ten dynasties of the future.

The Master answers: "The Yin dynasty adopted the regime of the Hia dynasty. The documents tell us what it added and what it omitted. The Tcheou dynasty adopted the regime of the Yin and the documents tell us what it added and omitted. In this way it is possible to know about the dynasties that will follow that of Tcheou, even if there should be a hundred." *Entretiens* cit., p. 82-23.

Important observation. Confucius' answer means that each dynasty tounds its own regime, after due reflection about the virtues and defects of the preceding dynasty. In this way a broader knowledge of a past period prefigures the period that immediately follows it. Is this not a means of reasoning by analogy, using the past to draw conclusions about the future, using the known to draw conclusions about the unknown? Thus Confucius, in his answer to Tseu-tchang, multiplies examples of such reasoning by analogy. If one has complete knowledge about the dynasty of one's own regime, it becomes possible to have knowledge about the regime of the succeeding dynasty and in this way to know about all the successive dynasties. It would seem that this use of logic in regard to history comprises the same structure that Confucius uses when he teaches geo-metry and shows that knowledge of one angle of a square yields knowledge about the other three angles.

³ We cite here two texts from Confucius that deal with the problem of the whole:

(a) The Master says: "Chen (Tseng-tseu), my doctrine consists in connecting (the whole) by one ... " Confucius' Entretiens cit., pp. 104.15.

(b) The Master says: "Sseu (Tseu-kong), do you think of me as a man who has learned a great deal and remembered It?"

"Yes, is that not true?" the disciple answers. "It is not true," says Confucius, "I connect (the whole) with the one." Entretiens cit., p. 238.2.

of the universe. This form of reasoning, of which Confucius, in his Conversations, is scarcely aware,⁴ is evident in a text of Tseu-sseu which we shall analyze in the second section.

Now let us examine a text of Mo-tseu which, if taken out of context, represents a Western mode of reasoning.

Wou-ma-tseu approached the Master Mo-tseu and spoke to him thus: "I do not agree with you because I do not wish to love all the men in the whole world. To be honest, I prefer the people of Tch'ou to those of Yue, the people of Lou to those of Tch'ou, the people of my country to those of Lou, the people of my family to those of my country, my parents to other relatives, and I love my body better than I love my parents. My body alone is close to me, for when I hit myself I suffer; when I hit another I do not suffer. Why should I hit someone who suffers and not someone who does not suffer? For the same reason, I would rather kill a man for selfish reasons than kill myself in the interests of another."

"Do you wish to hide your justice?" asked Master Mo-tseu, "or do you wish to impart it to others?"

"Why should I hide my justice?" asked Wou-ma-tseu. "I want to communicate it to others."

The Master Mo-tseu concluded: "If one man loves you, one man wants to kill you for selfish reasons. If ten men love you, ten men want to kill you for selfish motives. If all the men in the world love you, all of them want to kill you for selfish reasons. If one man does not love you, he wants to kill you because, according to him, your word is harmful. If ten men do not love you, ten men want to kill you because, according to them, your word is harmful. If all the men in the whole world do not love you, they will want to kill you because, according to them, your word is harmful. In short, all those who love you as well as those who do not agree in wanting to kill you. Your word is uttered by your mouth but it kills

⁴ All of Confucius' reasoning, two samples of which have been analyzed here, implies the Confucian intuition of a connecting entity. But none of his reasoning, sometimes implicit and always brief, proves the existence of a unit connecting the multiple. Our hypothesis that the *jen* includes all of Confucius' special virtues is merely a research principle which does not exist in the mind of this first Chinese philosopher.

your body. Of what importance is your word? To speak of things that are of no consequence is to tire the mouth unnecessarily."⁵

A careful reading of this text will suffice to show that Mo-tseu is perfectly aware of the Western notion of the abstract: "The whole is the sum of its parts." Because men all over the world, all the men in the world, can be calculated by a complete enumeration of real and living men under the heavens. In this vague fashion Mo-tseu expresses the Western notion of a logically organized whole, for he imagines two hypothetical wholes: 1) that all of humanity accepts and practises the doctrine of Wou-ma-tseu; 2) that all of humanity detests and rejects this doctrine. These two contradictory wholes constitute the entirety of the problem he raises, which is a logical whole. Let us examine the inevitable consequences of this logical whole in its two component parts. By adopting Wou-ma-tseu's doctrine, all the men in the world will necessarily kill one another. There is no doubt that Wou-ma-tseu will be killed in the universal slaughter. By rejecting Wou-ma-tseu's doctrine, each of us condemns him severely as an abettor of fratricidal war. And each would gladly be rid of him. In conclusion, all those who accept Wou-ma-tseu's doctrine as well as those who reject it are in agreement about killing Wou-ma-tseu. Thus selfish love is refuted and universal love comprises an advantage for everyone.

Can one say that Mo-tseu's logic by use of the absurd merely destroys the foundations of selfish love without demonstrating the great advantages of universal love, and especially of its practical applicability in the empirical world? With regard to this very legitimate question we can reconstruct a logic according to the important texts of Mo-tseu. The text cited above represents but one link of this reasoning, which can be presented as follows:

If each one of us looks upon himself as the center of the world, it follows that his naturally limitless expansion clashes with that of another and that this irreconcilable opposition of all men inevitably causes fratricidal war. Thus, the disadvan-

⁵ Souen Yi-yang, *Mo-tseu Kien-kou*, ch. 46, pp. 2-62-63. Ed. Tchou-tseu Tsi-tch'eng, Shanghai, 1954.

tages of selfish love are made clear, because universal selfishness makes life impossible for all and therefore for each of us.

Experience teaches us that he who loves another will in turn be loved and that mutual love constitutes an advantage for each. It also teaches us that peace within a family makes the family prosperous, and that love of one's country is the country's protection against outside aggression. Therefore should we not love all the men in the world indiscriminately? Only such universal love can achieve a peaceful world which is an advantage to all and harms no one.⁶

Mo-tseu's detractors offer the following objection: universal love is so vast and so abstract that no living human being can practise it because he cannot embrace the entire human race. Mo-tseu answers: "Imitate the heavens and follow its allpowerful will. The power of the heavens is immense and impartial, its benevolence is deep and unconscious, its light is lasting and it never weakens."⁷

To sum up, universal love so laboriously demonstrated by Mo-tseu remains very abstract in the eyes of empirical man. It can only be accepted by someone who tries to identify in some way with a heaven covering and protecting everything. If such is the case then the will of the heavens, seen as the model of Moist models of action, necessarily represents a concrete, indivisible whole. It would seem that this concrete and indivisible whole establishes the basis for abstract ideals of Chinese pragmatism and inspirits them with a fresh vigor that holds in check the tenacious selfishness of man, the slave of his particular passions.

In order to demonstrate our hypothesis regarding the specific structure of Western reasoning and its logical implications, we

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⁶ Cf. our translation of the first of the three dissertations on universal love. Liou Kia-hway: L'esprit synthétique de la Chine, pp. 197-198, Presses universitaires de France, Paris, 1961.

⁷ Cf. our translation of the imitation of the Model: Liou Kia-hway, op. cit., pp. 202-203.

shall analyze a syllogism chosen deliberately because of its familiarity and simplicity:

All men are mortal. Socrates is a man. Therefore Socrates is mortal.

After Socrates' death his disciples worshipped him so much that they thought him a god still living somewhere in the world. In *Phaedo*, Plato attempted to prove that the human soul is immortal and that when Socrates died he joined the immortals whose thoughts still function unhampered by the body. The syllogism inspired by Aristotle attempts to destroy the myth that spread after Socrates' death, a myth that claimed he was still living. The syllogism attempts to remind one of the following empirical truth:

> One after the other, all men have died. Socrates is a man. Therefore Socrates is dead.

Such a syllogism based on the point of view of extension can be rejected in these terms: since we do not yet know whether Socrates is indeed dead, how can we say that all men are mortal? In this way, the syllogism begs the question and becomes enclosed in a vicious circle. This judicious objection leads us to analyze the same syllogism from a point of view that seeks to understand:

> All men are mortal. Socrates is a man. Therefore Socrates is mortal.

Let us see whether or not the major premise contains a truth independent of any particular human experience. Since innumerable past experiences have certified that men have indeed died one after the other, man, during a given period of his history, suddenly became aware of his inevitable mortality. Thus, the human condition of existence includes mortality. This positive affirmation is valid always throughout time and space wherever man exists as man. In short, the essence of man implies his mortality.

Having made sure of the veracity of our premise, we can now return to the syllogism to obviate any doubt: whether Socrates though dead still lives or whether he is indeed dead forever:

(1) We know with certainty that every man as such carries within himself the implication of his inevitable mortality;

(2) The disciples of Socrates agree that Socrates was a man but not an immortal god;

(3) Socrates the man carries the implication of his mortality: therefore he is indeed dead forever.

According to our analysis, a Western syllogism necessarily includes three distinct terms and three equally distinct propositions. The three terms are (1) mankind or the essence of man; (2) the mortal world or the essence of mortality; (3) the concrete and individual Socrates. The three propositions are: (1) the major premise; (2) the minor; (3) the conclusion. To be both conclusive and valid, a syllogism must conform strictly to these conditions; otherwise it is not, properly speaking, a syllogism. Later on we shall see that Chinese logic does not require these conditions and therefore cannot be identified with a Western syllogism.

From the point of view of both extension and understanding, the syllogism we have analyzed necessarily demands a closed system of concepts, each of which represents an abstract and exclusive whole, organized around the principle of inclusion and exclusion. Thus, for example, mankind which includes Socrates is in turn included in the mortal world. But the mortal world excludes immortal man: and therefore Socrates is both included and excluded. He is included in the mortal world but excluded from the immortal. In the same way, the essence of man includes the essence of mortality. But the essence of mortality excludes the essence of immortality. Thus Socrates includes the essence of mortality but excludes the essence of immortality. To sum up, we know that Socrates is a concrete and individual man and that therefore he cannot be an abstract and exclusive concept. But the logic inherent in the Western syllogism demands that Socrates remain a concept of sorts because he is part of a closed system bound together by inclusion and exclusion.

We can be sure that no traditional Chinese thinker could have known of anything like the Western syllogism because he would not accept the notion of an abstract and exclusive whole which is the Western concept of man, a concept under which all concrete and individual men can be subsumed. In the eyes of the ancient Chinese and even of those of today, man is an integral part of all of nature and has no existence separate from that of every other human being in the world. Faced with the death of a man, a Chinese philosopher can think only two things: either that his death was caused by some form of social injustice, as in the case of Socrates who died for the sake of truth, or else that death signifies our universal fragility. In either case, no syllogism is necessary. Socrates died because society in his day was too limited and too unjust. Thus, a particular instance is explained by a broad principle with no need for a third term to connect this particular case with an explicatory principle; or else Socrates died a natural death because universal fragility affects everything that exists in the world. If this is so, there is no real syllogism because one can extract many very sound propositions from the notion of universal fragility, which represents such a vast and indefinite experimental truth:

Universal fragility affects everything

Socrates will die, A dog will die, The diamond will break, The mountain will chip away, The sea will dry up, The entire universe is perishable.

The specific structure of Chinese reasoning always contains two propositions and four terms. It corresponds to the Western definition of reasoning by the use of analogy. Therefore it does not fulfill the requirements of a Western syllogism which contains three distinct terms and three equally distinct propositions. It would seem to us that contemporary Chinese thinkers, in seeking to discover aspects of the Western syllogism in Moist writings, have erred about the specific structure of Chinese logic as well as that of Western logic, whose essence is the mediation that a third term and a third proposition insures.

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The important fact that Kong-souen Long, whose text will be analyzed in the second section, was unable to establish his abstract concepts (such as the concept of the horse, or of whiteness) in a coherent and systematic fashion is sufficient evidence that ancient China was entirely unaware of a closed system of concepts, each of which represents an abstract and exclusive whole, entirely organized around the very clear notion of inclusion and exclusion. Without a closed system of well-defined concepts, no traditional Chinese philosopher can, like Western thinkers, use induction narrowly or deduction necessarily. Why is there such a difference between Western and Chinese thought? It is altogether possible that the Chinese language, especially the figurative language, may not lend itself to registering the clear and distinct concepts of those Chinese philosophers who tend to adopt the Western mode of thought. It might be that an excessively elementary study of mathematics in ancient China did not equip the early Chinese thinkers sufficiently to understand the Western concept of universal definition and systematic classification; but all this does not explain the characteristic trait of a human thought whose fundamental orientation always remains free. It would seem to us that the obvious contrast between Western and Chinese thought stems primarily from two very different attitudes, each of which has its own scope and cannot be judged by the other.

The Western attitude and its inevitable consequences

A Western thinker usually begins by limiting the object of his research; he definitively suppresses everything that seems to have no connection with his problem and temporarily puts in parentheses whatever is indissolubly linked to it.

This kind of method of abstraction favors the progress of scientific research. Thus, for example, by abstracting the concrete matter inseparable from geometric figures, the geometrician is able to assess the value of each figure and its relations to the other figures in space. By ignoring the life inherent in all concrete matter, the physicist is better able to understand the actual structure of matter in its pure state; in this way he uncovers the necessary laws concerning matter in motion. By refusing to concern himself with causes and ends analogous to those of the human conscience, the biologist is able to study vital phenomena and to fix the laws that govern their apparition and disappearance, their evolution and decline. In short, it is always by slicing out a piece of complex reality that a Western science develops and contributes to the totality of Western sciences.

Because of its increasing precision and the light it sheds, the great body of Western science seems like a spider's web, so delicately and artistically woven that the ideal scholar, who has mastered all these determinative sciences, will infallibly be able to forecast the possible changes that may occur in every section of the web, all of whose parts are connected by a rigorous determinism.

No Chinese philosophers of the twentieth century will deny the impact of Western science. Not only does Western science enable man to make use of the hidden power in nature to rid himself of misfortune or to increase his well-being; not only does it enlarge man's vision, which is naturally limited owing to lack of experience, by providing it with effective means of digging into the most remote past or exploring the most inaccessible spaces; it also subjects the entire universe to a series of mathematical equations that become more and more comprehensive and infallible.

But a little reflection shows that the architectonic unity in any Western philosophical system has great difficulty in rejoining the original whole in which all parts fuse indissolubly and in which each concrete part contains in itself all the other equally concrete parts. It is on this original whole that the Western thinker, because of his analytical position, has deliberately turned his back; and it is also this original whole that the Chinese

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thinker has attempted, with the aid of penetrating intuition, to probe, using analytical reflection to ceaselessly clarify his metaphysical soundings.

The concrete and indivisible whole as the foundation of Chinese logic in all its forms

According to our preceding analyses, Confucius recognized a geometric whole because he began with the acquired knowledge of one angle of a square and then was able to reach a conclusion about the respective proportions of its other three angles; Mo-tseu perceived an arithmetical whole because he concluded that Wou-ma-tseu would be killed, either because all men living under the heavens would practise his doctrine or that they would all reject it. We have shown earlier that Confucius' analogic deduction cannot be limited to the domain of abstract geometry and that Mo-tseu's deduction by means of the absurd merely destroys the basis of selfish love without demonstrating the great advantage of universal love or its practical realization in the empirical world. These two Chinese philosophers, who disagree as to doctrine, are at one in resorting to a concrete and indivisible whole. Confucius evokes it by intellectual intuition, linking a single example to multiple examples; Mo-tseu illuminates it by his religious intuition of the heavens that cover and protect everything. To sum up, the early Chinese thinkers were very familiar with the abstract whole. But they conceived of it as very fluid in contrast to the abstract whole of Western thinkers. Why is there such a marked difference? Because the abstract whole of the Western thinkers constitutes real essences that are distinct from the empirical universe; and each of these essences includes and excludes other essences, and all are organized into an architectonic unity, whereas the Chinese thinkers' abstracts merely represent pedagogical procedures or experimental explanations designed to guide the neophyte into the complexities of total and profound truth. All this explains why Maspéro was not able to discover the real logic in Mo-tseu's text and why we are obliged to defend Chinese logic solely on the grounds of its

penetrating intuition.8 Fortunately, this article provides us with the rare opportunity of accurately describing the Chinese philosophers' fundamental procedure, each man operating of course in a way that is consistent with his own sense of logic. Since they are inclined to accept with docility any message that comes from the depths of objective truth, all the Chinese philosophers of our acquaintance can have no very clear awareness of their own logical procedures, the very nature of which is pure receptivity. That is why the ancient Chinese, including Longsouen Long himself, attempted to receive pure data passively and not to organize them in accordance with the Western ideal of self-conscious reason, imposing its own rules. This is also why the Taoists of Chinese antiquity were so marvelously successful in broadening and deepening Chinese subconscious receptivity, which is in direct contrast to the very conscious activity of Western reasoning.

About a person or an occurrence in the empirical world, a Chinese thinker does not ask himself: where does this come from, a question that evokes the Western principle of causality; or, to what is it destined, which suggests the Western principle of finality; or, why is it here at this time, which brings to mind Western investigations into the first cause of the world, that is, the essence of concrete existence. He merely concentrates on whatever is original and inexpressible within this being or this occurrence, whatever is unique and irreducible in the world. He appeals to his memory and to all his acquired knowledge. He makes such a sustained effort that he feels suddenly transported into something very deep and absolutely unfathomable, something that enables him to identify miraculously with all that has been, is and will be, something in which all is contained and outside of which nothing exists. After this very unsual metaphysical experience he tries to define it with formulas and to embody it in a special word. Other equally unique occurrences occasionally provide him with fresh opportunities of plunging once again into the same indecipherable depths. After every such experience he modifies his formulas and redefines his special word. One fine day he suddenly

⁸ Liou Kia-hway, op. cit., pp. 172-74.

realizes that these formulas ever in need of modification, and this special word forever requiring modification, will never embody his ineffable experience. Thereupon a terrible doubt takes hold of him, telling him that the result he hoped to achieve will always in principle escape him and that there exists not even the shadow of that nothingness to which the universe can in any way attach itself. Immediately, a sovereign and invincible presence surrounds and absorbs him. His very life fades away and with it all dissolving doubts; suddenly total and profound truth imposes itself silently and flows over everything, wiping all things out.⁹

If we examine in turn each of these soundings, stripped of all logical sequence, one could almost say that Chinese thought is nothing more than a haphazard sequence of intuitive visions and that no true Chinese reasoning as such exists. One can certainly affirm that Taoist writings, by identifying with the unfathomable depths that each sounding tries to attain but which each modified analytical thought effectively prevents, represent nothing more than an indefinite series of discursive reasonings, not one of which ever reaches these unfathomable depths.

⁹ We must caution the reader that this paragraph merely describes our personal experience, inspired by Chinese painters, poets, and philosophers; it does not represent in any way the norm of Chinese logic. But since there really is no such norm we offer this personal experience to enable a reader unfamiliar with the Chinese mentality to assess the nature of Chinese philosophy, something of which the Chinese philosopher himself is largely unaware. This warning signifies that no Chinese thinker conforms to our living experience and that therefore it is impossible to discover any rule that is common to all Chinese thought because it is not a deliberate activity but something undergone. There is no trace in ancient China of the Western ideal of a logic prescribing its own laws and norm.

Important Observation. It must be emphasized that there is a relationship between the concrete and indivisible whole, which is the basis of Chinese thought, and the abstract and very fluid whole, which constitutes Chinese thought properly speaking. Every Chinese philosopher believes that he is in immediate contact with the very depths. But upon reflection he realizes quickly that his thought has not reached the depths it aimed at. It is then that his thought necessarily becomes an abstract and very fluid whole. Thus, all Chinese thought is both concrete and abstract. It represents a concrete and indivisible whole when it is connected with the depths and loses awareness of its own existence; as soon as it becomes detached from the depths and is viewed solely in its necessarily limited form, it immediately becomes an abstract and very fluid whole.

The characteristic trait of Chinese logic can be illustrated by an experiment we made in the countryside. Let us stand facing a calm pond during a quiet, clear summer night and let us toss a large pebble the size of a nut into it. Immediately we see a series of concentric circles form and spread slowly outward. Let us then make an effort to identify sympathetically with the first little circle of the series. Utilizing our coenaesthetic and kinaesthetic sensitivity, we jump from the first circle to the second, from the second to the third, and so on indefinitely. In identifying thus with the series of concentric circles we can readily understand that each circle in the series represents an enlargement of our experience enclosed in its preceding circle and that no circle, neither the first nor the last, ever touches the very foundations of our real or possible experience. And yet it is this foundation alone that makes possible the series of concentric circles, which are always in direct continuity with it. Let us add one final and important observation: our metaphoric comparison, far from being an expression of the truth sought by ancient Chinese philosophers, and expecially by the Taoists, is useful merely as a means of putting the reader in the proper frame of mind to understand on his own their basic procedure, which seeks to uncover metaphysical truth that is beyond the reach of human experience.

II. MAIN SECTION

Each ancient Chinese thinker chooses his own manner of plunging into the unfathomable depths of complex reality and drawing forth his own moral and social conclusions. In the same way, we are entitled to follow our inclinations in selecting texts of ancient Chinese thinkers who are not mentioned in our analytic study, for this section is intended simply to provide examples supporting the hypothesis which we elaborated in the preceding part. We hope that other Chinese or Western scholars will forgive us for choosing texts which are essentially typical and more likely than others to confirm our supposition. We are almost certain that an analytical study of other texts and other ancient Chinese thinkers could not completely demolish the truth of our fundamental assertion concerning the characteristic trait of Chinese reasoning. For this reason we would be glad to see other Chinese or Western scholars undertake further research of the same type, in order to confirm or to confute our position. For the same reason we would like to start by analysing an important quotation from Kong-souen Long. This thinker, in apparent contradiction of our hypothesis, seeks to reduce complex and indivisible reality into a series of independent ideas, using a mode of reasoning reminiscent of the school of Megara.

We shall begin by citing the entire text of the discourse on the white horse, so that the reader can remark for himself the errors in Kong-souen Long's deductions. These deductions are based not on the Western notion of an abstract and exclusive whole, but on the Chinese conception of an abstract and highly fluid whole.

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I

-Can it be possible that the white horse is not the same thing as the horse?

-Yes.

—How?

-- "Horse" designates the form; "white" designates the color. That which designates the color is not that which designates the form. This is why I say: "white horse is not the same thing as horse."

II

—If there is (any) white horse, it cannot be said that there is no horse; if it cannot be said that there is no horse, does this not imply that a white horse is the same thing as a horse? If there is (any) white horse, this means that there is (a) horse. Why, then, would not white horse be the same thing as horse? --If you ask for (a) horse, you could be brought a yellow horse or a black horse equally well; but if you ask for (a) white horse, neither (a) yellow horse nor (a) black horse could be brought to you. Let us suppose that white horse is the same thing as horse. In this case, the objects of your requests (a white horse and a horse) should be one and the same thing. Why, then, is it that the yellow or black horse can (if you ask for a horse) or cannot (if you ask for a white horse) be brought to you. Can and cannot, these two terms are obviously conflicting. The fact that the yellow horse and the black horse are equivalent and that they satisfy the requirement "horse," but not the requirement "white horse" clearly demonstrates that "white horse" is not the same thing as "horse."

III

-You conceive of colored horses as not being the same thing as "horse"; but there are no colorless horses in the world. Does this mean that there are no horses in the world?

—Of course horses have some color. This is why there are white horses. Let us suppose that the horse has no color. In this case there would be simply the horse. What then, would be the sense of speaking of "white horse." This is why "white horse" is not the same thing as "horse."

IV

—"White horse" is horse and white. Horse and white (are not) horse. This is why I say that "white horse" is not the same thing as "horse."

He continues: —The horse, not being linked with the white, is the horse; the white, not being linked with the horse, is the white. It is when the horse and the white unite that they can be called "white horse." It is not permissible to call that which is linked by the name of that which is not linked. Therefore I say that "white horse" is not the same thing as "horse." He goes on: —If you maintain that to have (a) white horse is to have (a) horse, can you agree that to have (a) white horse is to have (a) yellow horse?

-This is not admissible.

--If you agree that to have (a) horse is not to have (a) yellow horse, this means that you make a distinction between (a) yellow horse and (a) horse. This distinction implies that the yellow horse is not the same thing as a horse. If you maintain that the yellow horse is not the same thing as a horse. If you maintain that the white horse is the same thing as a horse, this is like saying that the bird sinks in a marsh and that the inner tomb and the outer tomb change their respective positions. These are most contradictory and confusing words.

VI

v

He resumes: —Thus, if you have (a) white horse, you cannot say that you have no horse. This results from your separation of the white (from the white horse). If you do not make this separation, you cannot say that you have (a) horse. In these circumstances, if it is said that you have (a) horse, it is only because of the horse which you have, and not because of the white horse which you have. Thus it is esteemed that you have a horse, but it is not affirmed that "white horse" is the same thing as "horse."

VII

He continues: — "The white" is that which cannot possess any determinate whiteness; it can be forgotten. The white horse is that which has a determinate whiteness. That which possesses a determinate whiteness is not the white.

The horse is that which neither excludes nor includes any color. This is why the yellow or black horse can fill its specifications. The white horse is that which excludes and includes colors. That is why the yellow or black horse is excluded by its color; that is why only the white horse fills its specifications.

That which does not exclude is not that which excludes. I say, therefore, that "white horse" is not the same thing as "horse."¹⁰

We cannot examine the 2nd, 3rd, 4th, 6th and 7th arguments of the discourse, for these five arguments merely analyse the author's concepts. They do not, therefore, present examples of reasoning in the proper sense of the word. We will analyse the lst and 5th arguments, which we feel contain the author's deductive reasonings.

Let us outline the form of the reasoning contained in the first argument. This form can be expressed in a series of mathematical equations:

(1)	horse	<	form
(2)	white	<	color
(3)	color	\neq	form
(4)	white horse	≠	horse

A Western logician concerned with rigor of form would be justified in accusing Kong-souen Long of faulty reasoning. The Chinese thinker has introduced into his fourth equation a new term, the white horse, which did not appear in the preceding equations. The Western logician would recast the fourth equation, fitting it to his ideal of logical sequence, as follows:

(1)	horse $<$	form
(2)	white $<$	color
(3)	color ≠	form
(4)	white ≠	horse

Anyone can see that this corrected reasoning is exceedingly rigorous, but completely useless; for the distinction between the white and the horse does not need to be demonstrated.

What conclusion does Kong-souen Long draw from this reasoning of his which falls short of the Western ideal of rigor?

¹⁰ Sie Hi-chen, Kong-souen Long-tsen, ch. II, pp. 3b-5b. Ed. Mo-hai Kin-hou.

He wants, first of all, to emphasize the aeshetic fact that a dazzlingly white horse is not just any old horse, whose color catches no one's eye. Next, he wants to prove the moral fact that the white horse constitutes a genre apart from the genre horse, because its whiteness underlines its nobility whereas the other, ordinary colored horses do not possess this dignity and are not worthy of a pure and noble knight. Later on we shall see that this type of aesthetic and moral preoccupation prevented Kong-souen Long from formulating coherently his ideas of horse and of white. For him, each of these two concepts must have a definite contour, yet they must not be confused with any concrete and particular object; their essence is not an ideal simplicity but rather an interwoven complexity.

The author's 5th argument, we feel, contains two implicit deductive reasonings. The first is a deduction by the absurd, and the second attempts to reinstate common sense by systematically discrediting the first.

We prefer to express his first reasoning in the three following mathematical equations:

- (1) white horse = horse
- (2) horse = yellow horse
- (3) white horse = yellow horse

Rigorous though this deduction may be, its conclusion is obviously false. Our common sense tells us that a white horse is not a yellow horse.

Taking off from the irrefutable postulate of common sense, Kong-souen Long establishes a second argument, equally rigorous in form, whose propositions conform to the Western ideal of systematic classification. This second reasoning can also be expressed in the form of three mathematical equations:

- (1) white horse \neq yellow horse
- (3) white horse \neq horse
- (2) yellow horse \neq horse

In conclusion, the first and the second arguments lead Kong-souen Long to the same fundamental affirmation: White *horse is not the same thing as horse.* Yet there is a difference between the two: the reasoning expressed in the first argument completely transgresses the Western ideal of logical coherence, while the two reasonings contained in the 5th argument conform to this ideal in every respect. Here we put our finger on a manifest contradiction in the logical operations of a thinker who aimed at coherence and systematization.

Kong-souen Long was unable to establish an idea of white which could be judged coherent according to Western logic. The reasoning contained in his first argument blatantly contradicts the clear definition of white offered in his 7th argument. Let us examine once more, in equation form, the reasoning in question:

(1)	horse	<	form
(2)	white	<	color
(3)	color	\neq	form
(4)	white hor	se ≠	horse

Such a line of reasoning would be valid only if the white and the white horse were presumed to be equivalent. But this hypothesis openly contradicts Kong-souen Long's explicit definition: the white is that which cannot possess a determinate whiteness; the white horse is that wich possesses a determinate whiteness; therefore the white horse is not the same thing as the white.

The Chinese analyst was equally unable to formulate an idea of the horse which would stand up to the exigences of Western logic. Let us examine again one of the two reasonings contained in his 5th argument:

(1)	white horse ≠	yellow	horse
(2)	yellow horse ≠	horse	
(3)	white horse \neq	horse	

This reasoning demonstrates conclusively that the horse is neither the white horse nor the yellow horse and, therefore, that the yellow horse is not the same thing as the horse. Yet the affirmation that the yellow horse is not the same thing as the horse is openly contradicted by the second argument, which states that the specifications of the horse can be filled by the yellow or black horse, but not by the white horse. Thus Kongsouen Long contradicts himself in the course of the same discourse: he maintains first that the yellow horse is the same thing as the horse, and then that it is not.

Despite the subtlety of his analyses, Kong-souen Long was unable to formulate a coherent idea of white or of horse because the object of his reasoning is not the abstract and exclusive whole posited by Western logic, but the abstract and highly fluid whole of Chinese logic. Only this abstract and highly fluid whole can play the double role, both practical and theoretical, which he requires. In a practical perspective, he would like his concepts to have some rapport with concrete and indivisible reality. On a theoretical level, he would like his concepts to convey the specific structures of essences which transcend the empirical universe.¹¹

*

The 59th chapter of Lao-tseu contains a reasoning which takes the form of a series of concentric circles. Its point of departure is a subjective spiritual state, the exemplary sobriety of the Taoist saint.

We will cite our translation of this chapter, although it cannot serve as material for our philosophical analysis, in order to introduce the reader to the spiritual mood of Lao-tse.

To govern men and serve the sky nothing matches moderation

¹¹ The following two passages demonstrate Kong-souen Long's conviction that the hard and the white are endowed with an existence in themselves, independent of the empirical universe:

--not partaking of the stone, the hard is incarnated universally, in all beings. Not partaking of all the beings of the world, the hard is, of necessity, hard for its own sake; the hard imparts hardness neither to the stone nor to the beings of the world; it is hard for its own sake. Such a hardness does not exist in the world; thus it hides itself.

—if the white cannot whiten itself, can it impart whiteness to the stone and the beings? If the white is, of necessity, white for its own sake, then it can be white without imparting whiteness to beings... Cf. Liou Kiu-hway, L'esprit synthétique de la Chine, p. 146. for only he who practices moderation will soon obtain (the Tao) He who soon obtains (the Tao) will acquire a double store of virtue. He who acquires a double store of virtue will triumph in all. He who triumphs in all his power shall know no limits. He who knows no limits can possess a kingdom. He who possesses the mother of the kingdom can long retain it. This is what is called "the way of the deep root, of the firm base, of the long life and the double vision."

We propose a philosophical interpretation of this text which renders the indivisible unity of the original Chinese: he alone who acts only with parsimony can lead men and respect nature. For he who acts only with parsimony will be quick to discover the Tao within himself. He who discovers the Tao within himself reaps a double harvest from his virtue: he will not expend his forces for his ruin, and he will consecrate his vital efforts toward self-conquest. He who does not waste his forces in vain but advances surely along his undeviating course will conquer the hearts of all he meets. He who conquers the hearts of all he meets will find no obstacle to the conquest of the exterior world. This man possesses the secret of founding a State and of maintaining it forever.

Lao-tse's reasoning, interpreted in this way, has the basic form of a series of concentric circles: the first and smallest circle, he who acts only with parsimony, must be contained within a larger circle, he who will be quick to discover the Tao within himself. Likewise, he who will be quick to discover the Tao within himself must be contained within he who reaps a double harvest from his virtue; he who reaps a double harvest from his virtue within he who conquers the hearts of all he meets; he who conquers the hearts of all he meets within he who encounters no obstacles to the conquest of the exterior world; he who conquers the exterior world within he who knows the secret of founding a State and of maintaining it forever.

Unlike other Chinese thinkers who have employed the same basic pattern in their reasonings, Lao-tse avoids the pitfall of what Western logicians would label excessive subjectivism. The Laotian point of departure, "act with parsimony," is obviously a subjective spiritual state experienced by the Taoist saint. Yet the Taoist soul thus described bears no resemblance to the seat of human passions. It incarnates, on the contrary, the regularity of eversober nature. The 23rd chapter of Lao-tse demonstrates that sobriety rules concrete nature:

Speaking rarely is in conformity with nature. A whirlwind does not last throughout the morning. A rainstorm does not last throughout the day. Who produces them? The sky and the earth. If the sky and the earth cannot sustain Their exuberance Can man?

*

He who progresses toward the Tao, the Tao welcomes He who progresses toward virtue, virtue welcomes He who progresses toward loss, loss welcomes

The Laotian moral doctrine consists entirely in an effort to avoid the loss which human passion entails and to rediscover the original unity on which concrete nature reposes. The first two passages demonstrate clearly enough that Lao-tse conceives the one as the archetype of all lasting existence, the generator and regulator of the multiple in perpetual dispersion, whose influence dominates all the changing aspects of this contingent universe.

These are the things which once attained unity: The sky attained unity and became pure. The earth attained unity and became peaceful. The spirits attained unity and became productive. The valleys attained unity and filled up. The beings attained unity and reproduced. The princes and seigneurs attained unity and became the model of the universe.

If the sky were not pure, it would tear itself to pieces.

If the earth were not peaceful it would ruin itself.

If the spirits were not productive they would annihilate themselves.

If the valleys did not fill up they would wither.

If the beings did not reproduce they would disappear.

If the princes and seigneurs were not exemplary they would be overthrown.

*

A conscientious Western logician could reproach the Chinese reasonings we have analysed thus far for falling short of the rigor which must be exercised if a conclusion is to be legitimate and valid. Thus Kong-souen Long, for example, failed to attain the rigor and the faultlessness which he sought in his deductions. He failed because he was unable to conceive the Western notion of the abstract and exclusive whole which, alone, could have given coherence to his ideas and founded a sequence of reasonings composed uniquely of absolutely homogeneous and non-contradictory concepts. Similarly, Lao-tse departed from an extremely limited postulate, a human spiritual state, and tried to apply it to increasingly all-encompassing realities which bear no resemblance to a human spiritual condition, however sublime. It seems to us that neither Confucius nor, above all, Mo-tseu departed from the typical Chinese pattern of reasoning, that is, the attempt to proceed from acquired knowledge of a part to knowledge of the whole which must comprehend the part.

Yet the 2nd chapter of Tchouang-tseu contains an enigmatic text which Chinese commentators have failed, to our knowledge, to understand fully. This text, correctly interpreted in accordance with the doctrine of the metaphysician who composed it, can stand as a justification of both the objectivity and the rigor of Chinese reasoning.

We will cite our translation of the text in its entirety, in order to give the reader a general view of the question:

The Configuration of Chinese Reasoning

Supposing that I made a judgement here, who could tell if it resembled human prejudices? Or if, on the contrary, it did not resemble them in the slightest? Whether or not it resembles them, this judgement belongs to the same genre as the prejudices. Thus it does not differ from them. Let us try to illustrate our affirmation with an example: someone maintains that the world has a beginning, another denies that the world has a beginning: another denies the thesis which the other employs in denving that the world has a beginning. In other words, someone maintains that being is to be found at the origin of the world: another maintains that the void is to be found at the origin of the world; another denies the thesis according to which the void is to be found at the origin of the world: another denies the thesis which the other uses in denying the thesis that the void is to be found at the origin of the world. Now there is being, now there is the void. Who knows whether or not being and void really exist? If I make a judgement here, who knows whether it is a judgement or the absence of all iudgement?

This translation is so complicated that it threatens to obscure the logic at work in the text. Tchuang-tseu follows a pattern of regressive reasoning, a process of progressively fathoming a single and highly concrete fact. Only a word by word translation of the seven Chinese sentences can place this regressive reasoning in strong relief:

To have beginning then that one; to have never "have beginning then that one"; to have never (have never "have beginning then that one").¹²

To have, to have then that one;¹³ to have nothingness then

¹³ In our opinion, the 4th Chinese sentence should encompass the first and second, for we feel that the finite being in the first sentence and the infinite being in the second can be assimilated to the thesis of being in the 4th sentence.

¹² These three Chinese sentences operate according to the Chinese logic of departing from a single affirmation and investigating it in increasing profundity: thus the first sentence is denied by the second, which probes more profoundly into the first affirmation; in the same way, the second sentence is denied by the third, which probes more profoundly into the affirmation contained in the second sentence.

that one; to have never "have nothingness then that one"; to have never (have never "have nothingness then that one").¹⁴

Examined in the context of the second chapter, these seven important sentences involve, in our opinion, a series of metaphysical interrogations. Confronting a concrete and particular being within the world, Tchouang-tseu asks himself: where does it come from? where is it going? This interrogation, both causal and final, leads him to examine the world in its indivisible totality.¹⁵ Confronting a world swarming with beings, he asks himself once more: why does the world exist? This metaphysical curiosity leads him to search for the maker of the world.¹⁶ But the maker of the world can be conceived only as

¹⁴ These four Chinese sentences involve the same logic which operates by a progressively deeper examination: thus the fourth sentence is denied by the fifth, which represents a deeper examination of the affirmation contained in the fourth; similarly the fifth is denied by the sixth, which probes deeper into the affirmation contained in the fifth; the sixth by the seventh, which probes deeper into the affirmation contained in the sixth.

¹⁵ The reader will remark a manifest contradiction in our description of Chinese thought, for we have maintained above that the Chinese thinker does not seek the causality nor the finality of an object or an occurrence pertaining to the empirical world. Why, then, does Tchouang-tseu seem to do just this? Our answer would be that Tchouang-tseu views causal and final interrogations simply as a pedagogical process which aids the neophyte in identifyng himself with the world in its indivisible totality. He who arrives at an adequate understanding of the world, whose concrete unity is absolutely indivisible, no longer admits the separate existence of causes and ends. These causes and ends are always provisory and serve simply as guiding-marks for empirical man. Thus Tchouang-tseu's causal and final interrogation leads him to deny the Western conception of causality and finality which threatens to replace concrete and indivisible reality with a bundle of abstract and exclusive concepts.

¹⁶ The following objection could be made: you have maintained above that a Chinese thinker does not speculate on the first cause of the world (prime mover), that is, the generating essence of concrete existence. Why, then, as your exposé shows, does Tchouang-tseu ask who created and maintains the empirical universe? We do not deny that Tchouang-tseu, like Western metaphysicians, wishes to provide the contingent universe with a solid foundation. But despite this similarity in the two points of departure, we must emphasize that the relationship between the Tao and the contingent universe is not one of necessary determination nor of reciprocal attraction. Strictly speaking, it is not a relationship at all, for a relationship can exist only between two distinct terms. Tchouang-tseu, on the contrary, conceives of the empirical universe as an indefinite series of inherently inadequate symbols of the Tao, while the Tao itself lies utterly out of the reach of human experience. Since the Tao and the empirical universe are one and the same thing, it is impossible to think in terms of a real relationship between them. occupying a certain area of space and a certain lapse of time. How could a creator limited in space and time explain a world which encompasses all space and all times? A legitimate doubt with regard to a creator who is contained within his creation allows Tchouang-tseu to imagine that the world has neither a beginning nor an end and that it is infinite both temporally and spatially. Does this spatio-temporal infinity suffice to account for all the richness of the real world? Certainly not, for infinity can only be perceived as fully actualized and wholly displayed. whereas the world always contains an element of the utterly unknown and the radically unforseeable. Thus questioning the ability of infinity to explain the genesis of the world, the Chinese metaphysician is led to consider the void as the reservoir of the cosmic creation and the source of its radical unforseeability. Is this generating void really the first principle of the world? Tchouang-tseu cannot stop there in his search for the source of the cosmic creation; for the generating void presents itself, of necessity, as something completely opposed to the world, which it projects as its handiwork. He therefore submits the generating void, which still faintly reflects the empirical sphere, to a further process of analytical purification and plunges directly into a sort of first-hand contact with the absolute void, which encompasses the entire universe in all its possibilities and outside of which nothing can nor does exist. Does this immediate experience of the absolute void reveal the absolutely first principle of the universe? Not yet, for the absolutely first principle, the Tao itself, utterly and necessarily escapes the grasp of human experience. The Taoist saint has no hope of identifying himself with his object, for the Tao flees at the very approach of human experience.

The basic form of Tchouang-tseu's reasoning, thus interpreted, appears as an ever-widening series of concentric circles: a concrete and particular being within the world constitutes the smallest circle and must be encompassed in a larger circle, the world in its indivisible totality. The world in its indivisible totality must be encompassed in a still larger circle, the maker of the world; the maker of the world in a larger circle, infinity; infinity in a larger circle, the generating void; the generating void in a larger circle, the absolute void; the absolute void in a larger circle, the Tao itself. And the Tao, in our opinion, becomes necessarily an inherently inadequate symbol of itself. Thus the series of concentric circles must widen indefinitely, and the Taoist saint can never attain identification with the elusive object of his painstaking research.

It seems to us that no Western logician, however severe, can accuse Tchouang-tseu's regressive reasoning of insufficient rigor; for this reasoning only appears to depart from a very limited fact and to reach out to increasingly vast experiences. In reality, it represents not a process of reasoning by extension, but rather one of reasoning in profundity. The process of reasoning by extension, such as Lao-tse employs, consists in taking off from a given point and reaching out to encompass increasingly distant adjacent points. The process of reasoning in profundity which Tchouang-tseu practices can be illustrated in the following manner: a twig can be explained only by the branch to which it is indissolubly attached; the branch by the trunk of the tree which nourishes it; the tree which stands above ground by the roots which tunnel into the earth. The links of Tchouang-tseu's reasoning are equally inseverable: a concrete and particular being existing within the world can be adequately explained only by the world in its indivisible totality; the world in its indivisible totality by the maker who engendered it; this maker can be neither a finite being, nor infinity, nor the generating void, nor the absolute void, nor even the Tao itself in the measure in which it falls within the domain of human experience. Tchouang-tseu, a solid and relentless thinker, never ceases to question the conclusion he arrived at with such effort. But his regressive reasoning satisfies, nonetheless, the requirements of formal rigor. It owes this quality to the fact that, instead of extending his original concept to the realities of the empirical universe. Tchouang-tseu limits himself to examining as profoundly as possible a concrete and very limited fact and tracking it down to its last metaphysical "why."

An important objection could be made with regard to Tchouang-tseu's metaphysics: although his regressive reasoning satisfies Western logic's ideal of formal rigor, it is hard to tell whether his reasoning does not represent, in the last analysis, an evasion of objective reality, since it does not enable us to grasp any object of concrete, or even possible experience. This would be a valid reproach on the part of a scientifically-inclined critic, and Tchouang-tseu did, in fact, refuse to take part in the political events of his day and to alleviate as best he could the suffering of humanity. Judging by the criterion of objective truth, it cannot be denied that Tchouang-tseu furnished humanity with a timeless and very positive orientation towards truely objective truth. In the first place, universal consent is simply an expression of human subjectivity and as such cannot constitute the infallible indication of a truth independent of human will. For the events of each day show us that the masses of the world are dominated by a collective illusion which even the best endowed spirits cannot escape. Secondly, and above all, agreement between the facts and scientific hypotheses is far from being the absolute criterion of scientific truth, which is constantly evolving. For the indefinite progress of Western science shows us that this agreement, always partial and provisory, can never attain a state of perfect and definitive accord between scientific truth and the objective world. Given the imperfect conditions of human research, the transcendent, partially divined by Tchouangtseu's receptive intuition and tirelessly refuted by the severity of his discursive reasoning, is qualified to lay a theoretical basis for scientific research, which will never attain an absolutely definitive result. In short, the transcendent, hopelessly beyond man's grasp, reveals itself and proves itself partially but indubitably throughout the long history of man's truths and errors. The truths man attains and the errors he commits must be judged according to the transcendent, which constitutes the indefinable criterion of truely objective truth.