

Committee 1  
Scientific Objectivity and  
Human Values

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SCIENTIFIC KNOWLEDGE AND HUMAN KNOWLEDGE

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Introduction

In this paper the problem of the relation of scientific objectivity to human values will be approached on various levels: First, it is important to define the scope and meaning of the concepts introduced here. Secondly, a critical attitude should be assumed towards different approaches to this problem. Thirdly, we must consider what place axiology takes in the system of sciences. Finally we must perform a specific transfer from abstract thinking which assumes only pure possibilities to the attitude assuming convictions, involvement and faith.

As regards the concepts introduced here, at present I can only generally and hypothetically describe how I understand them:

- "Objective" or "objectivistic" means the same as "being a statement made on the basis of facts perceived through the senses, described and verbalized in accord with the principles of logically correct, discursive thinking".

- "Value" will be defined as a "Humanistic coefficient of knowledge" (scientific knowledge included), i.e., the moment which includes the structure of a person, his/her needs and a sense of existence in human cognition. The humanistic coefficient can be described as the moment in which objects and phenomena are introduced into a man's world - giving them a sense and importance, determining the ways of

behaviour towards them and using them in action. As an example we may use the Black Stone, the most sacred object for Moslems, situated in Mecca, in the Maab Temple: for non-believers it is simply a stone with a definite chemical composition and structure, while for the faithful Moslems it is an object of devotion (F. Znaniecki).

Another question is to what extent values can be accepted as "measurable", that is, as able to be expressed in quantitative, mathematical categories. Is it possible to measure them in any way so that the knowledge about values would be a specific counterpart for the knowledge based on experientially recognized, measurable facts . Radical approaches to this problem suggest that everything that cannot be measured should be excluded from scientific knowledge. This kind of reductionist approach would assume that the external, physical world is measurable and can be described with a mathematical formula, while a man's world, for which values are significant characteristics, is immeasurable. A closer look at this problem, however, shows that physical measures are not as exact as it might seem, and, at the same time, in the area of human affairs and values we make use of certain "measures" (we recognize some values as higher and others as lower; we see that values are realized to a greater or lesser extent, etc.). This allows us to assume that apart from physical metrum there exists certain meta-physical "metrum". It is obvious that a reductionism in science which is too far-reaching has the effect that the phenomena characterized by the "humanistic coefficient" are not taken into consideration ex definitione.

On the global scale the intellectual situation manifests itself as a great variety of attitudes and fundamental theses which sometimes are contradictory and opposing each other, and sometimes complementary. There also occurs a tendency towards integration, and towards one, non-contradictory and, at the same time, universal system of scientific knowledge. In this universalist trend nowadays there occurs an orientation to spirituality, caused by the fact that philosophical reductionism has proved too limited and one-sided, and incompatible with the idea of a fully human being living with high super-vital values and accepting that life on the earth has a meaning. This intellectual situation is also reflected in Poland - there are also representatives of analytical philosophy, neo-positivism as well as neo-thomism, phenomenology, hermeneutics, and recently also post-modernism. The freedom of proclaiming one's own views and approach in philosophy, which prevails today, creates a vast arena for conflicting world outlooks, religions and philosophies.

#### The quest for the Philosopher's Stone

Various branches of science have pretended to have reached the truth, understood as what is essential, or what constitutes the basis for existence. They include mathematics, which was once recognized as the "Queen of all sciences", logic, physics, and the humanities.

In the system of sciences mathematics performs two basic functions: It is a specific science, an autonomous deductive system of knowledge in itself. Besides this, it is an

important element of numerous methods of scientific research, first of all in the natural sciences, but it also appears, though in a more limited extent, in the methodologies of the humanities (e.g. psychology, sociology). Traditionally, mathematics is described as the knowledge of numbers and geometrical figures - in the history of culture the functions of mathematics or of numbers and geometrical figures expanded and, e.g. became linked with magic, astrology and religion, and finally they came into being in everyday life as "lucky" or "unlucky" numbers. Modern time, on the other hand, has made mathematics "a strict science", isolated from current events, magic or religion.

In philosophy, particularly in modern philosophy, mathematical objects became an argument in the controversy over the mode of existence of ideas - since "mathematical objects", i.e., numbers, rules and notions, are not merely states of consciousness, we must also accept that ideas - concepts - have their own, specific, "for-themselves" mode of existence (the controversy between the phenomenologists and neo-positivists about psychologism).

It might seem that mathematics ex definitione is a "strict" science using only univocal and well defined notions - there are, however, descriptions of mathematics sensu largo which include the humanistic coefficient. In the work What Mathematics Is by two eminent mathematicians R. Coraut and H. Robbins we read that mathematics as an expression of human thought reflects free will, a contemplative mind and a striving to aesthetic perfection. Its basic elements are: logic and intuition, analysis and construction,

generalization and individualization. Different traditions emphasized some or others of those opposing powers; the fight for their synthesis is decisive for the vitality, usefulness and great importance of mathematics.

Mathematics in our day is characterized by the following basis tendencies: the increasing role of the most universal schema and, connected with it, the development of the methods of abstract algebra; great development in probability calculus and statistics; the expanding range of applications comprising mostly technical and natural sciences and technologies of production (e.g. automatics, space engineering, computer technologies).

We must admit that the structure of mathematical science has been impressively expanded. It is also important that mathematics is not absolutized as abstract knowledge, but that critical discussions also point at its obvious limitations and prospects of development.

From the point of view of our discussion, we are interested in logic in four aspects: what is logic sensu largo; the absolutization of logic according to Frege's conception; the general sense and particular senses of the applications of logic; classical, mathematical and alternative logics.

In ancient times logic was understood very broadly (logikos - in accord with reasoning) and was included in philosophy. Today logic comprises particular disciplines like logical semantics, dealing with the signifying functions of expressions, aimed at the elimination of ambiguity and tracing errors in reasoning; knowledge about the essence of

truth and falsity; formal logic, i.e., a theory of logical reasoning; the methodology of sciences; analysis and criticism of pre-scientific ways of reasoning and conducting verbal disputes; the technique of mental work regarding its formal correctness; the problem of the position of logic in the system of sciences. Broadly understood in this way, logic covers an extremely vast area of knowledge and activity. In fact, however, it does so in one aspect only, namely in the formal and structural aspect, without getting involved in the humanistic sense, e.g., the meanings of concepts, values, or evaluations. Undoubtedly, the starting point here is so-called "formal logic", i.e., logic sensu stricto, the theory of forms of correct reasoning and the theory of the structure of deductive systems.

G. Frege constructed a strict, symbolic conceptual language, and since then the construction of symbolic languages (they are the so-called "formalized languages") has become the job of logicians. Pursuing the idea of formalizing all science, Frege put forward a thesis that mathematics can be reduced to logic. To put it in another way: all scientific knowledge is a system of formalized language.

Maybe logic transcends itself, i.e., it is really involved in any reasoning, since it posits the postulates of "logical correctness", "lack of contradiction", "univocality", etc. In particular, in the aspect of human behaviour it is important that logic makes communication between people and mutual understanding easier and, sometimes, possible. Thus, it is highly useful or even necessary for creating a universal system of scientific

knowledge.

However, "heuristic knowledge", the intuitive discovering of new truths, is also an important moment. We must also take into account the fact that there exists more than one universal system of logic. I mean here the moment of "logical values", i.e., the property of statements which consists in their agreement or disagreement with reality. Classical logic is bivalent: each statement is either true or false. In our day bivalent logic has been recognized as insufficient, and "many-valued logic" has come into being.

If we follow this path, we shall find traces of various "logics" or "para-logics". For instance, logics that came into being in Asia - in China and India - are different. We can also speak about the specific logic of mentally disturbed persons (a paranoiac lives in two worlds and each of them has a different way of reasoning). There exists extra-discursive and pre-reflective behaviour where, however, we can find logical structures applied spontaneously, intuitively, sometimes even unconsciously. Finally, there emerges the conception of "open logic", i.e. logic which cares not so much for the creation of a perfect abstract system as for getting a chance to fully explain phenomena and states of affairs that take place in the anthroposphere and in the physical world. For instance, it would be logic of potentialities, and its traces could be found in the art where even a masterpiece is merely one of a number of propositions, and univocality has the same rights as equivocality.

Physics also started as that branch of theoretical



philosophy which dealt with the general properties of material bodies and all natural phenomena. In this sense Democritus, the author of atomism, was a physicist. It was as late as the time of Galileo and Newton that physics became a particular science, and its rapid development in the 19th and 20th centuries has the result that nowadays it has developed into an extensive domain of science with many branches including theoretical physics and chemical physics.

Thus, physics obviously became knowledge about matter, but it has also attempted to move towards a general theory of being. In this way it, as it were, returned to the ancient understanding of its tasks. This was how the neo-positivists' physicalism, proclaiming the programme in which all concepts of empirical sciences can be reduced to the language of physics, came into being. The postulate of unity of knowledge is proclaimed. Finally, a thesis was put forward that all knowledge should use terms of an empirical, intersensual and inter-subjective character. Thus, it is the farthest-reaching programme of "objectivity" of cognition, rejecting the humanistic coefficient. Only these elements of reality are recognized as the object of science, which can be conceived as empirical facts and explicitly defined.

The possibility of explaining all phenomena - including the anthroposphere - through their reduction to the structure and activity of the primitive energy, e.g. thinking reduced to energetic transformations of elementary particles or waves of primitive energy, became the perspective of the universal science understood in this way, and based on physics. Maybe, this far-reaching reductionism could find

common points with mystical pantheism - and this is that in which the paradox of physicalism consists.

Let us now turn to the humanities. There also the problem of "objectivism-humanism", i.e., respecting the humanistic coefficient in research work, manifests itself very clearly. We shall consider the domains of axiology and history.

Axiology has been studied in two ways: 1) as a general theory of values, a branch of philosophy analysing the content of concepts and general ideas connected with the domain of values, or 2) as a more particular branch of knowledge investigating real phenomena that take place in the anthroposphere. And so, general axiology analyses the concept of value, attempting to define what value is (the following definitions of value are most commonly accepted: that which is valuable, that which can satisfy needs). Further, attempts at a classification of values have been made (cognitive, ethical, aesthetic, vital, personal, social, and ideological values are distinguished). Finally, axiology tries to establish a hierarchy of values (traditionally, the following three highest values are mentioned: truth, good, and beauty), and searches for the criteria for evaluation.

Particular axiological disciplines include, first of all, ethics and aesthetics. My professional interests are the reason why I shall speak here mostly about aesthetics. Still, these disciplines are, in a certain respect, similar to each other. The statement that aesthetics is the study of beauty is, perhaps, correct, but it is insufficient and may lead to hypostasis of concepts, i.e., to recognizing them as real

beings. We do not know what beauty is, we do not know the mode of its existence, so we should state precisely what aesthetics actually deals with. I assume that the object of this branch of knowledge is the "aesthetic situation". This consists of the following elements: the artist, the work of art, the recipient and the aesthetic value as the supreme factor. We must also state precisely what this "aesthetic value" is. I define it as the artistic "rationalization" of what is illogical in the human world, so that it can function in this world in accord with the laws of the existence and development of humanity.

This is where the controversy between the "objectivistic" and the "humanized" appears. Namely, each of the elements of an "aesthetic situation" may be treated as a "thing". It may be "reified", reduced to a fact measurable in accord with a physical system, or it may be endowed with the "humanistic coefficient" (values, evaluations, the moment of understanding, experiencing or emotional attitude, etc.). For instance, a work of art can be described as any physical object is described, measured and evaluated. Yet, one can also search for its aesthetic value, the beauty which is actualized in the aesthetic experience. A question arises in what way the cognitive attitude that allows one to reach the value of a work of art can be achieved. Well, this requires suspending the objectivist distance characteristic for the "aesthetics from the outside" and taking the position of an "aesthetics from the inside", that is, including of the personal aesthetic experience aimed at the recognition of a definite aesthetic value (the beauty characteristic for it -

e.g. the tragic, the comic, solemnity, poetry) in the cognitive attitude. Then, speaking of aesthetic value and of the work of art, we can directly use the experiences necessary in all contacts both in the aesthetic and cognitive attitude.

Aesthetics has its practical references, it helps in the formation of an "aesthetic personality" of the recipients of art, that is, of each of us. Ethics goes even further in the direction of life practice. The utilitarian element is the construction of norms of moral behaviour. Here we have to do, as it were, with the humanistic coefficient in actu, in action, and then the postulate of "objectivism, mathematization, the rejection of all valuations, loses its sense ex definitione. Although, for methodological purity we can adopt a model of an ethically insensitive man, yet it leads to moral numbness or even pathological "moral insanity", just as the lack of aesthetic sensitivity, and particularly its introduction in the educational processes, would lead to the formation of a one-sided, "flat" personality prone to stress.

History is the study searching for the truth about the past of mankind. But how is this "truth" and the "past" understood? Here we can distinguish several standpoints and several styles in which history is cultivated. Two cognitive attitudes of historians are in opposition to each other: 1) History is a set of documents and an archive of all source records - thus, it is focused not so much on the truth about the past of mankind as on the truth of the historical documents, and the "past" is the past of historiography. 2)

History is the search for the real factors and authors of the transformations of mankind in its history - thus, it may be an image, a reconstruction or historical structuring of the more or less deeply hidden causes of changes that took place in the past and the meaning of these changes.

Collecting materials, documents and relics as well as their analysis appears to the "objectivistic" historians as the only correct way of conducting research in their discipline and reaching the "historical truth". It is sometimes similar in sociology. Yet, bookcases full of documents are not enough to make a science; when the moment of synthesis and structuring of history comes, the objectivists are helpless facing the threat of imagination, emotion, reinterpretation, intuition or, finally, the overall vision of the development and striving of individuals and societies to reach definite goals, which transcends all documentation. The "objectivists" also see a threat in the thesis that at some moments in history ideas were clearly supreme to the current life of the community. Particularly strong resistance is evoked by every attempt at searching for the sense of history, while for a man the most important issue is the question of meaning and purpose, and structuring of history so that both an individual and definite communities may find their place in the historical course of transformations.

Tackling the issue of the sense and structuring of reality, we have reached the next problem that will now be considered: the styles of studying philosophy in light of the controversy between knowledge understood in an objectivist

way and knowledge understood in a humanistic way.

### Styles

Let us now move towards scientific or rather philosophical syntheses, to the attempts at conceiving the deepest and the most general knowledge about the world and man, which is the most difficult to conceive and which abstracts from what is fragmentary, one-sided and too primitive to explain the sense of scientific knowledge. This is done, first of all, in philosophical systems.

Generally, we can say that particular sciences (or branches of science) also adopt - more or less consciously - definite assumptions of a general and theoretical character as regards the nature and mode of existence of reality. Even radically "objective" knowledge reaches a moment in reasoning when it must adopt its primary assumptions "on trust", as obvious without any arguments, unknowable, enveloped in mystery.

Secondly, all structuring of the world requires a decision made not so much on the basis of logical argumentation as on the basis of the conviction that, in a given issue, an intuition is right or wrong. In this sense, for instance, the neo-positivist thesis that the only "true scientific character" consists in adopting a mathematical and experimental method reveals itself as a specific scientific fiction, as a myth operating in the same way as the humanities which accept the thesis about the humanistic coefficient, that is, including evaluations and specific rules of human behaviour in their investigations, analyses and interpretation.

In order to understand and interpret particular philosophical approaches we must recognize the tendency to absolutize one's own achievements which sometimes may be important, but are merely fragmentary. From the point of view of the humanistic coefficient in is quite understandable, but it does not agree with the principle of consequent objectivization. And this is the way in which the attitude of aversion to other people's views and the intentional "inability to understand them" (since they are not compatible with my own view, which is the only one that is right) arise.

In order to understand the sense of the above mentioned controversy more clearly, we must accept two kinds of experience: 1) sense experience, and 2) internal experience - the personal experience of values, needs, religious feelings or emotions.

Finally, we must accept that we have to do with two general styles of constructing general, philosophical theories: 1) formalized quantitative knowledge; 2) knowledge open to cognitive pluralism, accepting sense cognition, mathematized approaches, and formalization of language, but transcending these and moving towards the cognition of immeasurable phenomena of the physical world and the anthroposphere, and emphasizing qualitative approaches.

The current world outlook of a modern European reflects both the tradition of philosophical thinking and the most popular, contemporary currents of "public (current) philosophy". We can obviously also find here traces of common-sense thinking; it also happens that definite philosophical systems, as they become commonly known,

accepted and fashionable (e.g. Sartre's existentialism in the period of its greatest popularity), are included in this current world outlook.

As regards world outlook, we can distinguish three types of attitudes:

- persons with a primary general education are characterized by naive credulity;

- persons with a secondary level of general education are characterized by naive realism as regards the mode of existence of material things, the tendency to create hypostases of concepts, the literal interpretation of the products of the imagination, myths and works of art, as well as an inclination to fideism;

- the intellectuals preserve the critical distance in the sphere of cognition.

The materialistic orientation (including Marxism - Leninism - Stalinism which still remains a vivid problem and is not merely theoretically, but also directly, interesting for the present generations since, in some way or another, it affected almost every European). This orientation tries to replace all spirituality with materialism transformed from a philosophical approach into a "scientific Weltanschauung". This world outlook was then removed by a political ideology which, in turn, transformed into an economical theory characterized by voluntarism. This changed into the practice of power and the atrocities of totalitarianism in the ruthless and savage struggle for power.

Undoubtedly, Marxism included a large number of attractive and sometimes even right watchwords like



equality, justice, faith in the future, or striving to achieve universal stabilization. Yet, it is known that abstracted fragments do not always prove to be right in the context of a system or in confrontation with social reality. Besides, when they are treated as cliches, they may be re-interpreted in the way opposite to the initially accepted assumptions. The ideology of national socialism seems to be the most dramatic example of the contradiction between watchwords and their true meanings. And so, Alfred Rosenberg's book *Der Mythos des 20. Jahrhunderts* (1st edition in 1930) is entitled *Eine Wertung der seelisch-geistigen Gestaltenkmpfe unserer Zeit* [Valuation of the spiritual wars of our times]. The contents of the book as well as the approach to the fundamental issues of the anthroposphere can be seen even from the titles of its Parts and Chapters: Part One "Das Ringen des Werte" [The fight of values], Chapters "Rasse und Rasenseele" [The Race and the soul of the race], "Liebe und Ehre" [Love and honour], "Mystik und Tat" [Mystic and Deed]; Part Two "Das Wesen der germanischen Kunst" [The essence of German art], Chapters "Das rassische Schoenheitsideal" [The racial ideal of beauty], "Wille und Trieb" [Will and Instinct], "Persoenlichkeits und Sachlichkeitsstil" [Personal and objective style], "Der aestetische Wille" [Aesthetic will]. Part Three is devoted to considerations upon the organization of a "German state".

Reductionism, started by pragmatists, is the tendency to eliminate metaphysical problems from thinking, to avoid of questions aimed at the most general matters, to treat issues like value, sense, and the aim of existence as "apparent"

questions that cannot be solved and belong not to science but to art or pure fantasy with no counterparts in reality, that is, in empirically cognized reality. W. James, the father of pragmatism, was a physician, a philosopher and a psychologist. His (pragmatic) philosophy was, at the same time, a method and theory of truth. The method consisted in the introduction of the concept of practical consequences into philosophical considerations: The essential thing is what practical consequences issue from a given theory. If there is no practical difference even between extremely different theses, then, the whole difference is merely verbal. Thus, there are no rigid principles, closed systems or acceptance of the absolute.

As regards the theory of truth, the pragmatists' fundamental thesis claimed that the true is what is useful. The acceptance of usefulness as the only criterion of truth signified the acceptance of the relativity of truth. And so, for instance, the question whether God exists will be answered by a pragmatist: the thesis of God's existence is right if it brings about some practical benefits. John Dewey, who proclaimed himself in favour of instrumentalism, was one of the most radical pragmatists. He proclaimed the following theses: 1) human representations are not cognitions of being, but instruments of action; 2) the criterion of validity is reduced to common social acceptance; 3) truth and good undergo transformations depending on the situation in a given time, and the type of society; 4) metaphysics is useless, since one cannot investigate anything that is beyond sense experience; 5) religion is a personal matter and cannot be

considered on the level of truth - falsity. Dewey is described as an instrumentalist, relativist and empiricist of an anti-metaphysical attitude. And such an attitude unavoidably leads to spiritual impoverishment.

Reductionism includes also analytical philosophy. It raised objections against classical philosophy, claiming that instead of searching for truth it creates intellectual fictions, and that philosophical systems emerge in spite of the fact that it is possible to create a system comprising all phenomena, explaining the nature of being, cognition, and everything that is transcendent to the world. Analytical philosophy stated that a philosopher's task consists merely in conducting an analysis of concepts without considering to what extent they regard systemic solutions - be it materialism, idealism, sensualism or agnosticism. Analytical philosophy proclaims "logical atomism", which is pluralistic in character. This is why, remaining within mathematical logic, it admitted activistic interpretations accepting that elementary units of the real world include events, conventionalist interpretations (the conventional character of scientific knowledge), as well as materialistic and even Platonic ones. Instead of a philosophical system there emerges a mosaic of interpretational possibilities which does not lead to cognition, but merely to a conviction that cognition is an extremely complicated thing. Anyway, the aggressive plan of analytical philosophy to eliminate all metaphysics and religion from philosophical thinking proved successful to a large extent. This orientation won great popularity, became highly influential and caused restraint in

taking up humanistic problems and essential questions regarding existence and man. Its only merit was the severe criticism of many kinds of abortive philosophy giving too hasty solutions and accepting a priori that which required analyses. Sterilisation of metaphysical thinking caused the disappearance of broader philosophical interests, the eager limitation to fragmentary and secondary problems as well as the attitude of non-creative development of thinking and dwelling on issues that could be once more submitted to logical analysis with no cognitive involvement.

Another of the reductionistic orientations is neo-positivism, sometimes called "the third positivism of the Vienna Circle", "logical positivism" or "physicalist empiricism". It is characterized by: 1) empiricism - sense experience is the only source of cognition; 2) positivism - only facts are the object of cognition; neither transcendent beings nor the essence of things is; 3) physicalism - physics is the most perfect system of concepts, and it is what all scientific knowledge, including analyses of a philosophical nature, should be reduced to. Thus, it has been claimed that all statements included in metaphysics are not false, uncertain and unjustified, but simply nonsensical. Questions about the general nature of being, the sense of existence, etc., are apparent. There was also an attempt at the elimination of the theory of values - both ethical and aesthetic ones. They cannot be derived from knowledge about facts, and they merely show the human need of assuming a postulative attitude. It is only the language of ethics and aesthetics, created in the course of the development of

culture, which can be examined.

Neo-positivism is mostly attacked for the internal contradictions inherent in it, and the lack of arguments supporting its major theses. We may also raise another objection: it is a style of thinking that leads nowhere, enclosed in formalism and not taking into consideration the humanistic coefficient in its attempts at a theoretical description of the anthroposphere. It seems that the technical mastery in posing and solving formal problems of knowledge, which has been achieved by many theoreticians, may deserve admiration. Yet, for philosophy involved in values it is insufficient. Perfection of language and linguistic analyses are not enough to make philosophy as it is understood in the tradition and the present of a thinking human.

For centuries philosophy has been secularized. Nowadays it is manifested in Europe mainly in the two systems that are no longer reductionistic, but maximalistic: phenomenology and existentialism. Philosophy has been separated from theology, at any rate in the Polish context philosophers have simply renounced the discussion of religious subjects. Neither do they proclaim, e.g., atheistic theses. They do not tend to correct or improve theology - they have assumed the attitude of indifference as regards faith. Maybe, this tending away from God has its source in personal experiences: E. Husserl started to doubt the reality of the world and God's power and justice after World War I, while Sartre proclaimed the senselessness of existence after World War II. Anyway, the extensive influence exerted by these two philosophers and the

major theses of their systems upon the intellectual circles causes the now fairly common transformation of the conception of philosophy towards its secularization. Even a believer must accept that his faith is merely an act of fideism (e.g., in accord with St. John's thesis about passive mysticism claiming that God Himself selects souls which He intends to call to faith, while human will is helpless).

Obviously, approaches of this kind are not new - they have been taken up anew and presented in the attractive cloak of novelty; hence their social significance. It seems that a modern thinking man is characterized by a high level of criticism, doubts and the desire to keep on investigating. This phenomenon need not be basically negative, yet it leads to distrust in accepting universalist philosophical systems and creeds. In consequence, through "confessional pluralism", it may lead to complete indifference towards convictions and faith, and to the disappearance of the need for spiritual development.

#### The world and the individual "I"

I wish to complete this necessarily brief review of modern philosophical approaches and conceptions regarding the model of science with a discussion abandoning the theoretical and abstract level of generalizations and potentialities for the area of individual experiences.

The world is the domain of scientific research, which is accessible for many people. It is inter-subjectively given and measurable and verifiable facts operate in it. The individual self is the opposite extreme, which is what is given to an individual person and about which no one else can

state anything. Between these extremes there is a vast domain of knowledge which is sometimes scientific and sometimes human.

Why has human knowledge been opposed to scientific knowledge? Surely, the latter has been produced by man too. Yet, we intuitively perceive that such an opposition is justified, for science has become remote from the needs of the average man, giving him no answers to the questions about the sense and value of life, which are most important to him. Human knowledge regards this very sphere - it regards ourselves as well as other men. The need and search for this knowledge cause, to a certain extent, every person to be philosophically engaged, for it is philosophy that can bring the answer to these most important questions. It oscillates between my own self about which no one apart from me can know or say anything, and the essence of this self includes a relation to values.

Human knowledge is the knowledge about values, how to preserve and multiply them. It requires definite behaviour towards the world and demands action. It does not allow unbiased observation of facts, because facts of human life are always either positive or negative, either good or evil. Human knowledge strives to multiply the good.

Value - sense - primacy of truth. The essence of values consists in a specific "rationalization" of that which is illogical, that which, though it exists in the physical world or in the anthroposphere, has not been cognizable so far or is not knowable for a human at all. Saying "rationalization", I mean the intellectual mastering of the situation of

illogicality and introducing it into consciousness or practical life. Thus, values are not beings that exist in themselves. They exist in a complex situation comprising the world and man, his consciousness and inclinations, contradictions (oppositions) that occur in himself and in the world and which he tries to overcome with his active attitude striving for a synthesis.

One of the vital needs of a thinking man is recognizing and understanding how values operate in his life. As we achieve this, the feeling that we learn the truth - this truth which we want to learn most, and which is most worthy of being learned as the truth of life - increases.

Can values be the object of scientific research? Are questions about them merely apparent? Because of their objective-subjective character, values are potentially inherent in objects, while they are actualized and realized in acts of consciousness. Their examination assumes a possibility of reaching the so-called internal experience, i.e., the deep structures of personality. It also assumes that the structures of actual reality and the structures of logical thinking are parallel.

"Sense", in turn, is treated as a category of final thinking - "something has a sense", means that the real existence of this something is included within the most general structures of the whole, fills a definite function there and constitutes a necessary element of that whole.

The criterion of truth is the lack of internal contradiction, i.e., the compatibility of elements in the structure of the superior whole.



Spirituality - sanctity - the absolute are values which are among the highest in the hierarchy and belong to the summum bonum plane. Generally every man respects these values, reveres them and longs for them. He would like to get closer, e.g., to spirituality, to the subordination of instinctive life and the vital values to those highest values. Yet, he does not always work on it.

Spirituality and sanctity are phenomena which occur only in the anthroposphere, while the absolute transcends both the anthroposphere and the physical world. Because of the moment of transcending, cognition of the Absolute may be treated as a Mystery or a Being attainable only through mystic intuition.

Hope against all hope - this metaphorical expression signifies a certain intellectual "virtue" whose components are: courage in thinking (not avoiding even the most difficult questions), fortitude of thinking (not being discouraged by failures in the search for truth), perseverance in thinking (systematic mental work), and responsibility of thinking (not being satisfied with partial and uncertain results of one's intellectual work).

Doctrines - life - fulfilment are the three supports of private, personal thinking, the private philosophy of a man searching for truth. Is it right to attach much importance to philosophical systems, theories and theses? Philosophers are often asked the question how all this becomes known and from where are the truth-syntheses derived. It is not enough to say that we observe facts, because facts require analyses, interpretations, and constructing of wholes - syntheses. It

is the case, however, that the structures of reality are homologous with the structures of thinking and that there is a specific parallel between the structures of phenomena and the logical structures of thinking.

We have been given a definite period of time for our lives on the Earth - among people and objects, among ideas and religious yearnings. We have been given certain typical, cultural and individual properties. Finally, we have been given a definite amount of energy and abilities which allow us to use this energy in a rational way. If we are not deprived of freedom, we make a choice about how we wish to use our life energy - what to turn it into. It sometimes happens that people spend their energy on doing evil or on pessimistic considerations of the transientness and triviality of the world and of themselves. To be able to use one's life energy in accord with the optimal plan of existence, to achieve the fulfillment of expectations worthy of man, it is necessary to assume the attitude of acceptance of life and respect for the supreme values, particularly for the Summum Bonum, the Absolute, God.

When are our intellectual hopes fulfilled so that we shall personally touch the truth and participate in it? Such fulfilment is achieved only by few spiritual leaders. Epiphanic, transient fulfilment comes to a man as a very intensive spiritual experience that may transform his whole life. Finally, there is fulfilment that comes as a quiet grace of hope that, though we may achieve little, we still participate with all our personality in being warmed up by the warmth of the truth.

There still remains the critical and distant attitude: hope versus hopelessness. A man draws a picture of the world of high values and desires to participate in it, yet he is always confronted with inhibitions, repugnance, fights, crimes, the triumph of evil. He asks himself why it is so. There are several possible answers to this question: 1) satan's intervention is the reason for the spreading of evil; 2) like the good, evil belongs to the natural structure of the anthroposphere, it is a specific dialectical necessity; 3) evil, as an insufficient recognition of the good and a moment of trial or test of man's good will, belongs to the necessary stage of development; 4) evil is a manifestation of human weakness, the instinct of fight, aggression and imperfection of the species; 5) manifestations of evil should be treated as cases of ordinary mistakes having no great importance in the anthroposphere. Which of these options is right? Maybe each of them is, at least to a certain extent.

To cherish hope against all hope means to hold a conviction that the good is stronger than evil, that a man can cognize the truth within his own personal limits and that expectations may come true. Human knowledge is founded on the hope and expectation of fulfilment - scientific knowledge is based on calculated principles and models. There is no basic contradiction here, but a lot of intellectual effort, responsibility and courage is required to make these two opposites meet and see the light of truth in both of them.

Human knowledge - knowledge about oneself, about another man, about values - is knowledge "without arguments", intuitive, but, at the same time, it is connected with

understanding and based on "the logic of the heart", emotion, and even dreams. We know about another man not only when we base our knowledge on empirical proofs and experience, but also - or, maybe, first of all - when we feel his closeness, when we love him, when we trust that, even if he is the worst, he will change and become fully human. This is the hope against all hope applied in practice. A mother who does not lose faith in her son though he is a rake and a thief may serve as an example here. She is not convinced by any rational arguments that her son should be punished, deprived of a chance to spend his life on entertainment, etc. And it sometimes happens that the mother's blind love wins: the son changes and finally becomes an honest man. Let us now compare the traits of scientific knowledge and human knowledge:

Scientific, objective, formalized knowledge	Human, humanistic knowledge requiring no assumed formalization
using artificially created language which is understandable only to circles of specialists	using natural, simple lan- guage with which it is easy to communicate
striving to achieve a fully discursive character	taking into account, apart from discursive, intuition, visions, presumptions
strictly limited to experimental and logical argumentation	going beyond experimental and logical argumentation (knowledge without arguments)

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striving to achieve computer-type perfection	satisfied with natural understandability and taking into account the moment of ambiguity
scientific, objective knowledge striving to cognize facts and nothing but facts and relations between them	human, humanistic knowledge drawing no limits to cognition
quantitative	qualitative
only that knowledge is accepted as scientific which is included in mathematical-logical-sensual conception	taking into account the humanistic coefficient and axiological problems
rejecting questions of a metaphysical nature, i.e. those going beyond the sphere of matter	taking up metaphysical problems
claiming primacy of methodological perfection over the issue of whether a given science serves something	striving to find an explanation of the basis phenomena of the anthroposphere for the sake of perfecting of humanity
accepting sense experience only	accepting internal experience

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