

## ASSUMPTIONS IN PSYCHOLOGY

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Important in the development of science is the realization that science is relatively subjective. It was physicists like Planck (12), Bohr, von Weizsaecker (17), and Heisenberg (4, 5) who made man aware of this. Especially the development of quantum physics made clear that the ideal of absolute objectivity and of an absolutely objective view of the universe was a dream never to be realized. Recent discoveries taught convincingly that every so-called scientific view of the world is extremely limited. Every scientist who approaches the universe selects necessarily one out of many viewpoints which could be taken. It is essential that the scientist does not look on man and the universe in all their dimensions but that he limits himself to a selected part of the universe. This selection is based on a choice and on assumptions which are relatively subjective.

Not only the physicists but other thinkers as well realized the relative subjectivity of science. Remarkable in this context is the so-called phenomenological way of thought. The phenomenologist studies man's primary experience. This experience is more comprehensive than the conceptual knowledge which man selects later from his original experience by means of analysis. This original experience precedes clear conceptualization. It is the matrix of all partial concepts arbitrarily chosen by man. Man in his primary experience is still open to the universe. He is in contact with the fullness of reality in all its nuances. This experience is therefore essentially different from the scientific way of knowing. Man can only understand in a scientific way when he subjectively limits his original view. In order to be scientific he must adopt an attitude other than the open pre-scientific one. He has to change and to reduce that which was originally given in his primary experience. What are considered to be objects in science are not objects which are given as such, but which are viewed in a specific frame because man orients himself subjectively in a certain way towards reality. Naive experience does not know about the objects of science but knows people, houses, trees, birds and flowers, love, hate and anxiety.

When man determines subjectively that he will consider all these realities in a scientific way then he limits his experience of them by some subjectively created frame of reference (6, 7). They are no

longer what they were. So-called exact data are rather interpretations of man's primary experience (3, 14). Scientific thinking foregoes primary experience instead of penetrating it. The scientific view of man and the universe is thus the result of a certain modification of the human attitude. The primary experience of the world is fenced in by science. Science modifies experience fundamentally. And it does this by means of a subjective choice by man (10).

The realization by contemporary physicists and phenomenologists that science is relatively subjective made man more aware of the fact that he always starts from certain assumptions in his scientific endeavors.

#### DENIAL OF ASSUMPTIONS

Psychology does not absorb easily these new realizations. Various psychologists try to escape the realization that assumptions are inevitable. Some of them profess that they consider all the views of all the schools of psychology as equally relative and that they themselves start without any assumption. But by declaring all these views to be relative the psychologist cannot escape having his own very definite view. The more this relativity of the different psychological viewpoints is stressed, the more forcefully the absolute character of one's own position in psychology reveals itself. Perhaps it could be called a superviewpoint, but nevertheless it remains a viewpoint. It offers no escape from a decisive, absolute choice of position in the understanding of man.

Others say that there are no assumptions because they cannot be proven by means of the scientific method. Even this effort to get rid of assumptions is in vain. For to declare that only these propositions of psychologists make sense which can be experimentally verified is one of the most sweeping assumptions one can think of because it contains a definite and irrevocable judgment concerning all possibilities of human knowledge and their relationship to what is knowable. There is no escape from assumptions in psychology. The psychologist of every school always makes an ultimate and absolute judgment about what is called the nature of man and about the way in which man can be understood. These assumptions of psychologists are not arrived at by psychological research. On the contrary, the assumptions of the psychologist are the point of departure for the kind of research that he will perform and for the evaluation of the results of this research (15, 16).

## REASONS FOR THE DENIAL

It seems more difficult for the field of psychology than for other areas to assimilate the new realization that science is relatively subjective and always implies assumptions which cannot be arrived at by the scientific method itself.

The early psychologists were inclined to imitate physics. This tradition still influences many psychologists today. But what they actually know about physics are probably the optimistic tenets of the early physicists (8). They seem less familiar with the realizations of such physicists as mentioned at the outset. They are therefore less sensitive to the relative subjectivity of science than some of their contemporaries are.

Early psychology had to free itself from the dominance of philosophy. It was understandable that the psychologist reacted against a domineering philosophy which at that time was rationalistic and abstract. An unfortunate consequence is that many psychologists now are inclined more than other intellectuals to underevaluate all publications which are of a more theoretical, philosophical or literary nature. This may result in a certain narrow-mindedness, an unawareness of what is transpiring on the contemporary intellectual scene. Because of this, certain psychologists may be less able to profit from the new realizations which are expressed in these other areas, concerning the nature of science.

Psychology was a relatively young science which had to prove itself. Science rightly claims a certain degree of objectivity and consistency in its methods and factual results, once the scientist has subjectively selected a small segment of reality as an object of research. It is easily understood again that the insecure psychologist of that day was inclined to over-stress his claims on objectivity. As a result of this historical condition certain psychologists today are more afraid than other scholars to admit in the light of the new realizations that assumptions are inescapable and that they are not provable by the scientific method itself.

The psychologist who believes that his assumptions and the interpretation of the outcomes of his research are absolutely objective may be inclined to construct his view of life on the basis of these findings. His science becomes his philosophy of life. This makes it more difficult for him to tolerate the realization that his scientism, as much as science itself, is finally built on assumptions which according to his feeling

are not trustworthy because they are not based on results of the scientific method.

Another factor may be that certain scientists who are committed to a certain kind of minute research may have a more or less compulsive personality structure. Science in their lives may have the function of organizing reality in such a way that they feel sure that they can at least potentially measure, control and dominate the unknown. The realization that assumptions which are not experimentally demonstrable are at the base of their science could evoke anxiety. In this case the avoidance of this realization operates as a subtle defense (9).

Finally the character of experimental work does not lead directly to the realization of all the implications of experimental psychology. One even has to admit that as far as the psychologist is aware of these problems it is to his advantage to bar them from his awareness as long as he is engaged in experimental research. Paying attention to assumptions during the experimentation itself would make scientific work impossible. This attitude of abstraction from the assumptions involved during experimentation extends itself easily outside the laboratory and makes the experimenter blind to the very existence of the assumptions involved.

The education of the psychologist suffers necessarily from the imperfections which characterize psychology itself. From the very beginning the student may be inclined not to take seriously certain sources of knowledge of reality such as philosophy and literature which are common to other intellectuals in his culture. At the same time he does not have the preparation that would enable him to involve himself deeply in a modern science such as physics. So he misses also the realizations that are common to the modern physicist.

#### AWARENESS OF ASSUMPTIONS

In spite of all this one finds an increasing number of psychologists who become aware of the fact that their research necessarily takes its departure from relatively subjective assumptions (1, 9, 11, 13). The reason is probably not that these psychologists are better acquainted with the latest results of quantum physics and the relativity of the scientific view that is one of the consequences of its recent development. Nor can it probably be explained by a deeper and more extensive knowledge of contemporary art, literature and philosophy.

How did these psychologists escape intellectual isolation? It seems that they are for the most part psychologists who are interested

in the clinical area. This interest implies concern for the human person and especially for his experiential life. This genuine and lasting attention to the experience of man may lead to the realization that his relatively subjective experience is the source of all his endeavors even in science. And it is here that clinical psychology approaches the realizations of modern thinking and the perceptivity of contemporary existence. One of the results is that these psychologists tend to be more aware of assumptions and try to make them explicit.

We could in a somewhat inaccurate way draw a distinction between positivistic and phenomenological-existential psychologists. When we ask ourselves about their relative subjectivity, we may characterize this as follows. The subjectivity of the positivistic psychologist seems to be a more repressed and inaccessible, rigid and closed subjectivism. This means that he is inclined to see his relatively subjective assumptions as absolutely objective. He has a certain disdain for reflection on subjective assumptions, and even a certain fear of this reflection. This more or less repressed subjectivism tends to make him rigid and absolute regarding, for instance, the evaluation of his methods. He may, for instance, believe that quantifying methods are the only ones which are worthwhile. And because the relatively subjective basis for this belief is not open to his continual reflection he has no means to correct this attitude.

The subjectivity of the more phenomenological-existential psychologist seems to be more accessible, flexible and open. He is less inclined to believe that his assumptions are absolutely objective. He is more aware of what determines his scientific work (13). This prevents subjective influence from becoming too fixed and too rigid. It makes him more open to the subjective determinants which influence other people in psychology and other fields. He is inclined to reflect on his relatively subjective assumptions and to ask himself from time to time whether they are still tenable, whether they can be expanded or reconciled with the relatively subjective viewpoints of other men who study in one or another way the human person. He might even see the concept of science itself as a growing and changing concept. Dependent on relatively subjective assumptions, this concept takes on a different meaning and content in different periods of culture (2).

It is clear that such an open, flexible and accessible subjectivism could be promoted in students of psychology. One could require that they write down in every research paper what their basic assumptions are. While interpreting the results, they would have to indicate clearly

what the interpretation would be in the light of their own assumptions and what, in the light of the assumptions of some other prominent schools of psychology.

#### POSITIVISTIC VERSUS PHENOMENOLOGICAL ASSUMPTIONS

Finally one could ask, what are the assumptions of the positivistic psychologists and what are those of the phenomenologically existential ones? It would be impossible to elaborate on this extensively in this paper. It briefly comes down to this, that the more positivistic psychologist still adheres implicitly to the two assumptions of mechanism and determinism which were characteristic of early physics. Mechanism implies a wholly quantitative theory of atoms-without-qualities (15). This implicit assumption is more and more in contradiction with the facts discovered by the physicists. The same is true of the development in psychology. The implicit assumption that man can be understood by analyzing him into elements which are statistically the same is basically in contradiction with reality. In other words, the assumption of mechanism that all phenomena can be reduced to local change or to a change in position of intrinsically immutable particles is no longer tenable in view of the facts. But it still influences the scientific work of the positivistic psychologist. Another assumption of the early physicists, namely that of determinism, was that every situation of primordial particles at any given moment was determined by an inner law and by the situation at another moment. This assumption in its psychological form is still of great influence on the thinking of the positivistic psychologist. The physicists are far more cautious since the principle of uncertainty was formulated by Heisenberg. We call both tenets philosophical assumptions. We call them assumptions because they do not find support in strictly empirical theory. We call them philosophical because of the absoluteness with which they are held: they are applied by the positivistic mind to everything in man and in the universe.

The assumptions of phenomenological-existential psychologists are of as great a variety as those of the positivistic psychologists. The scope of our paper allows us only to refer to them negatively as the contrary of an absolute mechanism and an absolute determinism. They are the counterpart in psychology of the new assumptions of the quantum physicists and the existential philosophers. Becoming, creativity, growth, self-actualization (1, 9, 11, 13) are terms which more or less indicate in which direction these assumptions are developing.

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