Humanistic psychologists now embrace many of the same principles which served as the basis for Piaget's theory. These same theories were described earlier by John Locke and Immanuel Kant, and were the basis of the new "Humanism" movement in Germany in the 18th century. If one considers humanistic psychology as a kind of culmination of the "centralist and holistic" schools of psychology up to the present time, it becomes clearly evident that Piaget fits squarely into this intellectual tradition. Both Piaget and humanistic psychology hold a number of underlying principles in common: (1) the feelings of people and the affect qualities are raised to the highest level; (2) the focus of human activity is on purpose; (3) learning must lead to personal growth; and, (4) the spontaneity and play spirit of the child is emphasized. (CS)
CRITICAL CONTRIBUTIONS OF PIAGET TO HUMANISTIC PSYCHOLOGY

Russell N. Cassel

University of Wisconsin-Milwaukee 53201

The history of modern scientific psychology begins with the experimental laboratory of Wundt in Leipzig, Germany about 1879. It was there that philosophy and psychology were divorced from each other, and when psychology began to be addressed to the scientific study of human behavior. The first school of modern psychology was known as "Structuralism", and the consciousness of man was the only accepted subject matter. The only method acceptable for the study of man's consciousness was described by Wilhelm Wundt as "introspection", a kind of self-analysis; for only the individual himself could examine his own personal feelings.

Systematic psychology, as we know it today, has been a cumulation of many different schools of psychology since those earlier days (functionalism, behaviorism, hormic or purposive psychology, depth psychology, field theory, organismic psychology, gestalt psychology, topological psychology, among others), with each newly organized major school adding important knowledge to the understanding of human behavior.

Locus of Control

From the very beginning of modern psychology there has been in clear evidence the presence of two basic and entirely different orientations with regards to the "locus of control" for human behavior: (1) peripheral and atomistic-where the locus of control for all behavior was to be found somewhere outside of man, first by instincts and propensities, and later by reinforced contingencies and conditioning; and (2) central and holistic-where the locus of control was to be found within the individual, first in terms of tensions and
Humanistic Psychology

In a much different way than any of the previous schools of psychology, humanistic psychology represents the cumulative developments from the 'central and holistic' group of schools: field theory, organismic, gestalt, topological, and ego psychologies. In addition, many of the same principles which served as the basis for Piaget's theory espoused earlier by John Locke and Immanuel Kant, and which were the basis of the 'humanism' movement in Germany in the 18th century, are now embraced by the humanistic psychologists. Some of the most important and most characteristic principles have been described as follows (Casella, 1973): (1) feelings of people are paramount, (2) focus is on purpose, (3) need hierarchy gratification, (4) activity needs to be "end" in self and have intrinsic value (not just knowledge about, but must include "experience" with), (5) person is autonomous free-will agent with decision competency as vehicle, (6) love of knowledge serves to free, (7) love and have intrinsic value (not a means with extrinsic value), (8) play spirit of child invites enthusiasm and spontaneity, (9) democratic values infuse, (10) feel and personal growth (not just knowledge about, but must include "experience" with), (11) improved welfare of man is important and critical, (12) self-actualization only true freedom for each individual, (13) competency learning must lead to personal growth (not just knowledge about, but must include "experience" with), (14) human freedom the immediate and ultimate goal for all men.

John Locke

It has been reliably stated that after the great Greek philosophers.
(Socrates, Plato, and Aristotle), Locke was only second to Kant in terms of the impact of his philosophy on man. It was he who first held for the political rights of all men, and who vigorously combatted the doctrine of the divine rights of kings. He insisted that "Absolute Monarchy" is inconsistent with civil society, and so can be no form of civil government at all. Until the days there was general belief in "innate" ideas; that man was born with much of his knowledge and that it unfolded with maturation or simply growing older. Locke denied the existence of innate ideas, maintaining two, and only two, sources of ideas in man: (1) sensory materials from the five senses (eyes, ears, mouth, nose, and cutaneous) - where one's mind was acquainted with the objective world, and (2) experience through inner self - where there was operation with the mind and which dealt with conscious mental activities.

Immanuel Kant

This great German philosopher elaborated greatly on the earlier theories of John Locke. He insisted that each individual has an inherent right of life, liberty, labor, property, and the pursuit of happiness, but, in view of these rights, he has the preliminary right to the development of his native capacities. He maintained, not unlike Locke, that the mind at birth was like a "carte blanche" (white paper devoid of all characters); that percepts without concepts are blind, and concepts without percepts are empty - a statement made repeatedly by Piaget. The chief difference between Locke and Kant is that Kant does not accept the notion of a passive and receptive mind as postulated by Locke. Rather, Kant believes that personal experience of an individual with the object is necessary for personal development. It is the Kantian notion of an active participant that was espoused by Piaget and later humanistic psychology.

Stages of Human Learning

Piaget was careful to discern between human development and human learning. For him human development was a spontaneous process tied to embryogenesis; while learning needed to be provoked by external situations. He described his now four famous stages as follows:
Sensory-motor stage. This is the pre-verbal stage lasting approximately from birth through infancy to the 18th month of age. During this stage objects have little or no permanence, and when they disappear from the perceptual field they no longer exist in the mind of the child. This is the period when there is development of the sensory-motor space; construction of temporal succession; emergence of sensory-motor causality; and the indispensible structure for later representational thought.

Pre-operational stage. This clearly represents a transitional period in the life of the child lasting from about 2 through 7 years of age. Gradually, as the names for objects are acquired he begins to form ideas of oneness for things and to make some general categories for objects. It is during this stage that we have the beginnings of language, of the symbolic function, and therefore of thought or representation. Here the individual lacks the ability to think about what he is thinking or to plan much ahead; for the child is still egocentric, viewing the world from his own momentary perspective. For Piaget the image is something that the child must construct for himself, just as he did the sensorimotor schema. This construction is most often accomplished in play, by deferred imitation, and where the child is able to imitate some action of a model, but after the model is no longer present. Play is fun largely because it emphasizes assimilation rather than association, and because it need not fit the rigid demands of reality. For Piaget a mental image is not meaningful unless the child is able to distinguish it from the perception or what he pictures, and until he creates meaning through assimilation and personal interaction with it. This is precisely the same position taken by Kant, and now forms the basis for "competency learning" so critical in humanistic psychology.

The pre-operational stage is divided into two separate stages. The period from about 2 to 4 years of age being the "egocentrism" stage, where the child has trouble understanding the effects of different points of view on the same event. During this period one is unable to anticipate how an object might look from
another point of view, or even realize that it will look different. The period of from 4 to 7 years of age Piaget calls the "intuitive" period, and deals with how a sequence of objects would look when rotated in space. During this period the child is able to integrate different viewpoints and information from different sources.

Concrete operations stage. Here the individual begins to stabilize his thinking in the sense that internal actions and perceptions are beginning to organize into logical operations systems. Generally, it takes place from 7 to about 11 years of age for typical individuals. Here the individual is able to think-out the consequences of possible action ahead of time. This stage involves only concrete operations because they operate on objects only, and not yet on verbally expressed hypotheses. Piaget theorizes nine different groupings in this stage: one simple equivalent grouping that prevades all others; four groupings that relate mainly to logical classes as abstractions; four infra- logical groupings concerning the relationships of parts of an object to the whole or of members of a class to the entire class. There are operations of classification, ordering, the construction of the idea of number, spatial and temporal operations, and all of the fundamental operations of elemental logic of classes and relations, of elementary mathematics, of elementary geometry, and of elementary physics.

Formal operations stage. Here the individual is able to reason on the basis of an hypothesis, and not only on objects. This stage takes place generally after about 11 years of age, when the individual is able to deal with more than the real, concrete situations of the "concrete operations stage". Now he is able to conceive of possibilities only in his mind; he can reason correctly; can make logical inferences; and can understand causal relationships. The individual is not at a stage where he is improving his problem-solving abilities. Here formal hypothetic-deductive operations are generated where the person can
consider all possibilities or combinations, hypothesize the results, and establish an organized and logical sequence of procedures.

Factors That Explain Development

According to Piaget there are four main factors that explain the development from one set of structures to another, and it should be noted that both cognitive and physical development are included:

.. MATURATION - in the sense of Gesell, since this development is a continuation of embryogenesis.

.. EXPERIENCE - the effects of the physical environment on the structure of intelligence.

.. SOCIAL TRANSMISSION - this deals with linguistic transmission, education, and interaction with peers and cultural environment.

.. EQUILIBRIATION - this entails self-regulation in the sense of cybernetic type feedback and feedforward at different levels.

Human Learning

Two separate and independently organized stages of human learning are clearly recognized and described, and both of them deal directly with the function of knowing: (1) figurative aspects, and (2) operative aspects. Mental imagery deals with the very general question about the nature of knowing.

Figurative aspects. This aspect of learning deals with status configurations that are independent of transformations leading from one state to another. The figurative aspects are typically subordinated to the operative aspects. Here we are dealing with mental imagery as an anticipation of states which have not yet been seen.

Operative aspects. This deals with transformations leading from one stage to another. In this we include physical actions which transform objects in one way or another. This, to be sure, includes operations, that is, interiorized actions which have become reversible and are coordinated with other operations in a structure. These operations may also focus on transformation of objects.
PIaget (Cont.-)

Proved. Learning for Piaget is always limited to a single problem or situation. It is always provoked from outside of the learner by a teacher, an experimenter, a problem, or by some external factor.

Operation. To know an object, for Piaget, is to act on it; not simply to look at it and make a mental copy. Knowing an object always involves some aspect of interiorized action. It may be the joining of classes, the pulling of things into a series, counting or measuring, action modifying an object, and it is never an isolated activity, but is always linked with other operations.

Seriation. This involves the interrelationship of operations, and which for Piaget constitutes the basis of all knowledge. Learning is possible only when there is an active assimilation, and which results in the integration of any sort of reality into a structure, and which is seriously underplayed in the operant conditioning approach.

Humanistic Psychology

If one considers humanistic psychology as a kind of culmination of the "centralist and holistic" schools of psychology up to the present time, it becomes clearly evident that Piaget fits squarely into this camp or group of thought, and that any efforts to translate it into stimulus-response language must make two modifications that are so considerable that the theory is no longer the same (Ripple, 1971):

"(Piaget)shall go on now to the second part of my lecture, that is, to deal with the topic of learning. Classically, learning is based on stimulus-response schema, while I won't say it is false, is in any case entirely incapable of explaining cognitive learning".

"... Now the essence of Berlyne's results is this: our findings can very well be translated into Hullian language but only on conditions that two modifications are introduced. Berlyne himself found these modifications quite considerable. . . . These transformation responses (Berlyne) are what I call operations, and you can see right away that this is a serious modification of Hull's conceptualization because here you are introducing an element of transformation and thus of assimilation an no longer the simple association of stimulus-response theory.

If humanistic psychology has an underlying principle which raises the
feelings of people and the affect qualities to the highest possible position for consideration, it should be noted that Piaget embraces the same concept, and which were equally present in the works of Locke and Kant (Piaget, 1960):

"... Further, there is present in the child a whole extremely delicate psychology, often very shrewd and pointing in every case to a keen appreciation of its affective life. In a preceding work we maintained that the child's efforts at introspection are extremely crude, but this does not in the least contradict present contention. It is possible to feel acutely the results of a mental process without knowing how such a result came about."

The notion from humanistic psychology that the focus of human activity is on purpose, then all human behavior or importance lies at the basis of the "formal operations stage" as Piaget described it. By definition an "hypothesis" always contains a "goal" or expected outcome as the dependent variable, and the means for such goal attainment as independent variables. Then for Piaget from the age of about 11 years on purpose is clearly established (Ripple, 1971):

"Finally, in the fourth stage, these operations are surpassed as the child reaches the level of what I (Piaget) call formal hypothetic-deductive operations; that is, he can now reason on hypotheses, and not only on objects."

The notion that learning must lead to personal growth in the individual attributed to humanistic psychology has been one of the corner stones of Piaget's operations, and which he describes as the basis of all learning (Baldwin, 1967):

"... For instance, an operation would consist of joining objects in a class, to construct a classification. Or an operation would consist of ordering or putting things in a series. Or an operation would consist of counting or numbering. In other words, it is a set of actions modifying an object, and enabling the knower to get at the structure of the transformation. An operation is an interiorized action. ... These operational structures are what seem to me to constitute the basis of knowledge, the natural psychological reality, in terms of which we must understand the development of knowledge."

The notion that humanistic psychology embraces the spontaneity and play spirit of the child, even when we are speaking of adults, has been embraced squarely by Piaget (Baldwin, 1967):
"But play has other features than pretending. For one thing it is fun. The reason is true, says Piaget, is that it emphasizes assimilation rather than accommodation: play need not fit the demands of reality. . . . In the process of imitation and play, Piaget sees the first appearance of symbolic schemas, internal schemas that permit symbolic behavior."

The concept of human freedom so prevalent in the principles of humanistic psychology is a matter of the gravest concern to Piaget throughout his work. For example, his methods of "introspection" focus squarely on the freedom concept where the child reigns as "King" for the moment. The fact that the mind of the individual as an active rather than a passive phenomenon serves the more to emphasize notions of freedom. Indeed, his process described for human adaptation reflects the importance of freedom, and has been the subject of another treatise by this author (Cassel, 1973a).
References


2. Barnard, H. German Teachers and Education.


6. Cassel, R.N. Critical contributions of Piaget to developmental psychology.
   Psychology, 1973a, 10(1), 42-45.


8. Inhelder, B., and Piaget, J. Early Growth of Logic in the Child: Classification


