Reflections on the nature of human nature

Reflexiones sobre la naturaleza de la naturaleza humana

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ABSTRACT

To a great extent, all humanistic studies lead to the absorbing theme of the nature of human nature. But the various views of scholars lack consensus and often validity. The ground for this is assumed to be inadequate foundations in scientific philosophy and psychology. Conventional views about human nature include notions of innateness and trascendence. The present essay is designed as a naturalistic alternative based on the interdisciplinary consideration of biological, ethnological, and psychological principles. It is proposed that a naturalistic approach can provide satisfactory information concerning the evolution and interbehavior of human beings with the things and events in their environments. It is interbehavioral events that constitute the natures of hominids. DESCRIPTORS: Human nature, Interbehavioral psychology.

RESUMEN

En gran medida, todos los estudios humanísticos llevan al absorvente tema de la naturaleza de la naturaleza humana. Pero los diversos puntos de vista de los estudiosos carecen de consenso y con frecuencia de validez. Se asume que la base de esto son los fundamentos inadecuados en la psicología y la filosofía científicas. Los puntos de vista convencionales acerca de la naturaleza humana incluyen nociones de lo innato y la trascendencia. El presente ensayo está diseñado como una alternativa naturalística basada en la consideración interdisciplinaria de principios biológicos, etnológicos y psicológicos. Se propone que una aproximación naturalística puede proporcionar información satisfactoria referente a la evolución y la interconducta de los seres humanos con los casos y eventos en sus ambientes. Son los eventos interconductuales lo que constituye las naturalezas de los homínidos.

DESCRIPTORES: Naturaleza humana, Psicología interconductual.

HOMINIDS PURSUE GENEALOGY

Once hominids reached the stage of inquiry and reflection, they became interested in problems of mankind, its origin and evolution. Of course, there is little need to justify this interest since the knowledge to be reached is of enormous significance. However, the search for solutions of hominid problems have been adversely influenced by the means available to the generations of researchers. Often the results have been unsubstantiated by the actual nature of the subject matter.

In this essay, an attempt is made to institute a rational interdisciplinary study of the biological, psychological, and anthropological matrices of simple and advanced personalities. The primary intention is to survey the origin and development of hominids in relation to their cultivation of local or general societal systems, from the standpoint of a philosophy and psychology free from the animistic traditions which are so prevalent in civilizations both simple and highly cultivated.

THREE FOLD APPROACH TO HUMAN NATURE

The term "mankind" symbolizes a number of complex organisms that requiere various specialized disciplines. To begin with, hominids are animals so that the attention of biologists beyond biochemistry is essential. Then hominids have evolved societies varying in many ways, so the disciplines called sociology and anthropology are brought into play. Finally, as all complex organisms perform behavior named psychological, the discipline of psychology is of the essence. We consider each of the three disciplines in order.

A. BIOLOGICAL APPROACH

Biology as the study of living things based on cellular structures and functions contributes most to what is miscalled physical anthropology. With respect to human nature, it teaches that hominids are all of one species though with many variations in size, shape, color, sex, and general organization. In the present context, biology serves to ward off wrong views about the relative superiorities and inferiorities of any one group over others.

Again, biology aids the study of human nature by informing students that the problems of reproduction and inheritance of traits and function are limited to organismic events and do not apply to psychological interbehaviors which are acquired characteristicas of specific individuals. At this point, the biology pertinent to human nature is the ecological branch.

Unity and Specificity of Hominids. All hominids belong to a single biological race though they differ in color, size, and weight. The differences,

however, may be very great according to bioanthropological analysis. By means of techniques and instruments, such as craniometry, scales, and tests of various sorts, they can be catalogued as different. But the differences are minute as compared with the cultural differences of customs, rites, language, and general ways of living and adaptation to their ambient locale and conditions. The similarity of hominids and their unity stem from their animal characteristics. It is the commonness of species that functions as barriers to greater divergences.

B. ANTHROPOLOGICAL APPROACH

We turn now to the identification of anthropology in the human nature context and the proper assessment of its relationship to the other two disciplines. In general, anthropology covers three different types of things and events, (a) biological or organismic data, that is, anatomical and physiological conditions of the various hominid types, (b) the anthropic conditions of mankind, their institutions, their homes, foods, arts, occupations, and so on, and finally (c) their psychological behavior, knowledge, beliefs, various practices as adjustments to their environments. It is the (c) factors that mainly form the bridge between psychology and anthropology.

Anthropologists do not make any significant distinction between (b) and (c), grouping both under (b) culture, and thereby incurring errors about psychology. That can be illustrated by the anthropological writers who ascribe animistic principles to the entire civilizations of so-called primitive peoples, for example, Tylor (1899).

On the side of psychology, it must be pointed out that groups cannot perform psychological actions. There is no psychology of communities, but only the behavior of persons. Moreover, animistic types of behavior are not limited to so-called primitives, but are to be found in the so-called most highly developed groups such as the cultivated European nations who include even in their science a considerable portion of animism.

Anthropology: Foreign and Domestic. The cultural branch of anthropology is certainly in a flourishing state. Data concerning mankind is of great interest and finds many devotees. Theories about man and his institutions proliferate and improve. However, there is a disproportionate emphasis upon early or primitive groups with a minimal attention paid to the civilization of the anthropologists themselves. This is a deplorable situation since there is lost the values to be obtained from the observation of complex cultivated societies, and the knowledge gained from the evolution of scientific psychology.

C. PSYCHOLOGICAL APPROACH

Institutions and Behavioral Adjustments. Both cultural anthropology and

cultural psychology investigate institutional events. The former concerns itself with the objects, processes, and products of specific groups. Examples range from structures evolved as shelters, objects for cooking, weapons for hunting and crafting, protection, adornment, and other means of living. Behavioral institutions such as societal organization, rites, rules of various sorts count also as societal institutions. When anthropological institutions participate in psychological fields, they operate as stimuli for the reactions of individuals.

Behavioral adjustments as psychological events are invariably acts of individuals in reciprocal interaction with stimulus objects both when acting individually or collectively. Within the anthropological realm, psychological adjustments are interactions with cultural institutions. When eating, the food stimuli represent edible things and processes instituted in the group in which one lives. Similarly the clothes which members of particular communities wear are institutionally evolved. The vocabulary and grammar are likewise what has evolved in communities or borrowed from a neighboring community.

The study of anthropology or psychology clearly demands acquaintance with the fundamentals of each as well as the proper interrelationship of the two disciplines. The consequence to be hoped for is a better understanding or mankind and the maturity of its development or evolution.

Psychology and Organismic Anthropology. Although psychology is closely related to cultural anthropology, that does not signify that psychology is in any way remote from organismic anthropology. We merely take organismic anthropology for granted. It is organismic anthropology that attests strongly the fact of the evolution of hominids from a line of different organisms through spatiotemporal aeons. In this sense, cultural anthropology is itself an evolution from former stages of biological evolution.

FACTORS IN HOMINID EVOLUTION

Such complex events as hominid evolution must be assumed to take place in various ways and in connection with many factors. In the following paragraphs are selected some examples of such factors.

Biological Evolution. Hominids are of course such organisms as have passed through a number of stages all in reciprocity with conditions and changes in the environments in which they have originated and changed. We rely on the biological specialists to investigate the details of how the successive evolutions or modifications have taken place in the general evolutionary processes. As factors may be mentioned natural selection, mutations of various sorts, and the interplay of genes.

Population Increase. The multiplication of persons is a factor of modest proportion that plays an important role in the evolution of all organic entities. However, in the general development of hominids and their ambience, population increase reaches a tremendous stage in the necessities of biologi-

cal maintenance. Food gathering cannot suffice, and if a group is to survive, new ways of provision must be found. The result is to cultivate and increase supplies by growing stages of authentic agronomy.

Home Site. Where groups originate and live is an important cultural evolutionary factor. Inasmuch as evolution is an interactional process, the form and stability of institutions are inhibited or advanced by the presence of water resources, metals, wood, and other factors such as ice, deserts, or various nonhominid and hominid populations.

Any or all the factors mentioned can be very effective in influencing the growth of groups and their members toward a chosen ideal or judgment concerning culturalization or civilization.

Human Resources. Groups of every variety of hominids obviously are merely aggregates of human individuals. Accordingly, no feature in the evolution of mankind and its maturation is more important than that provided by the individual members. Thus a high value must be placed upon the capacities of persons to initiate and maintain changes in the lives of persons and groups. If and when changes occur in the form of an invention or societal practice, it can only be by the acts of individuals. Groups may conserve institutions but that too is the work of persons. In the relation of individuals and groups, the individuals serve in two capacities, once as the source of initiatory actions and again as conjoint actors in the multiplicity of groups.

An excellent illustration of the reciprocity of individual and group relations. When a child is born, it can only perform linguistic behavior such as exists in a group. But the nature of the language, its vocabulary and grammar is what it is because of the changing and modifying behavior of the individuals who spoke the language. Obviously, persons exist before speech institutions, and it can only be that the changes in institutions are brought about by individuals throughout the histories of their linguistic systems.

PATENT ERRORS CONCERNING HUMAN NATURE

Our survey of the origin, development, and operation of human nature supports the assumption that we have a sound scientific criterion for the investigation of human nature. Hence we can use it to examine various views of social scientists about our subject. Unfortunately, even the avid interest in and pursuit of data have not provided the learned world with a substancial fund of information about this most important and fascinating of events. There are errors and misunderstandings within the three disciplines of biology, anthropology, and psychology. Not all the approaches to hominid events are invariably naturalistic, that is, not all the observations, analyses, and interpretations are based closely on the events investigated with a minimum or total freedom from traditional assumptions.

Biological Errors. Scientific biology regards mankind as organisms developed by purely naturalistic evolutions. Whatever evidences are used for such

a conclusion by any type of discipline leave no room for any processes or products beyond spatiotemporal events. No knowledge or understanding based on mythology, metaphors, or other misuse of language can be intermixed with actual contacts of learned and competent observers with ocurring events.

A prime error perpetrated by some biologists is the notion that traits of culture and societal activities are inborn or innate on the pattern of inherited biological traits. The great error here is that the events in question are behavior which is always based on prior development plus current conditions.

It is an interesting situation that even ethnologists who claim not to believe in innateness but indicate that they are devotees of development take over this false innateness idea. A good example is the case of C.R. Hallpike (1977) who criticises anthropologists, for example, Levi-Strauss (1966), for holding to innateness, though he himself clings to innatenesss. Why he trinks he is clear of innateness is his insistence upon development. What Hallpike takes to be development is the psychological viewpoint of Piaget who is a firm believer in the existence of mind which changes on the basis of improvement with age. Piaget's psychology is fundamentally metaphysical in line with the historical development of psychology and so human nature is invariably innate and the development in stages consist mainly in the maturation of mind.

Anthropological Errors. The errors which anthropologists commit rest primarily upon the acceptance of nonnaturalistic philosophers and psychologists. The nature of hominids and their institutional impedimenta is not derived from a proper appreciation of the characteristics of organisms and their civilizations.

The classical illustration is the mishandling of the comparative problems of primitive and cultivated mentation and thinking. The view is held that primitives are prelogical and so think differently. The popularly known advocate is Levy-Bruhl (1923) though his way of thinking is widely entertained despite considerable objections.

In contrast to the negativistic position stands the opposite view that credits hominids of simple cultures with equal powers of thinking and reflecting upon the conditions of their living. Such a work as Radin (1927), which is entitled *Primitive Man as Philosopher*, serves well as a corrective to the errors concerning so-called savages.

Psychological Errors. As we have intimated throughout this essay, all the errors concerning hominids stem from a matrix of misguided philosophy and psychology. Both are derived from supernatural and religious sources and not from observations of actual things and events. It is certain, then, that improper thinking about human nature arises from the espousal of supernatural beliefs and doctrines.

Both the ethnographic errors and their correction are based on the spurious philosophical doctrine of the existence of a structural entity called

imagination, thinking, feelings, reasoning among others. This is the growth of the ecological behaviors typifying the highest peaks of human nature. The apex reached by hominids is the emergence of complex and effective interbehavior such as science, the fine arts, and civil governments. In these top stages of development, there is not lacking among individuals traits deserving the title sapiens and even sapiens sapiens, though in the highest stages there is still the admixture of transcendent elements.

HUMAN NATURE IN CULTURAL PERSPECTIVE

We have now reached the period in which hominids have achieved their full species maturation, and have become dispersed into numerous groups located in various near and remote habitations. Each group through the circumstances of normal adaptations will evolve institutions of many sorts to mark it off as a more or less distinct culture or civilization.

It is in these groupings that the participant individuals will build up their unique personalities, their particular ethnological and psychological ways of living, styles of dress and self decoration, art production, vocational labor, and so on in grand profusion. Each group will offer its membership essential opportunities to develop a distinctive human nature. Consequently there will arise many variant natures though not without parallel similarities. During the development of the different natures, some individuals may achieve superior or inferior elements when compared with other individuals in a particular group.

THE CULTURALIZATION PROCESS

Since the study of human nature always involves a close mutual relationship between individual organisms and groups, neither of which may be neglected or even minimized, we consider in the present section the relationship from the standpoint of individuals, leaving the group aspects to a later section.

As the neonates develop from their early group inclusion, there is a growing series of psychological adjustments parallelling and following their bioecological adaptations to their ambient persons, things, and conditions. Because of the prolonged infancy of hominids, the ambient conditions appear highly prominent. But the mutuality is never absent. It is therefore possible to observe the culturalization process.

Briefly, that process consists in neonates building up psychological capacities and responses in shared conformity with the persons in their proximity. This is the case with all interactions with the things and events in the particular civilization, and includes all practices, beliefs, and psychological capacities.

It is important to notice that the process involves many particular procedures. In the simpler situations, conditioning occurs but for the most

mind or mentality, though no such entity exists. Minds, mentality, inner states and powers are products of religious imagination.

Because the supernatural aspects of modern philosophy are focalized in psychological thinking, it is doubtless the case that the most flagrant psychological and philosophical error concerning hominids is that they consist of two parts, a material and a spiritual phase, a mind and a body. The entire history of psychology consists of the exchange of arguments as to what the mind is and does, though "mind" is only a distorted word. There is presumed to exist a savage mind, a civilized mind, a male mind, a female mind, an animal mind, and so on. If the word "mind" refers to anything, it is only the interbehavior of organisms with stimulus objects and their functions.

HOMO SAPIENS OR HOMO FABER

So copious and far reaching are the errors about hominids that it is questionable whether the name homo sapiens is the appropriate one. Most likely, a more appropriate name than the self adoring one of sapiens should make way for faber, that of the fabricator of things. Certainly the history of the origin and evolution of hominids support the change. When we follow through the development of the hominid species in the various groups, we can trace both the unity and diversities of hominids as well as the primary technological patterning of objects and other institutional impedimenta. Thus it is possible to divide the evolution of Homo Faber into a series of stages.

Stage One. The early stages of Homo Faber display an animal in complete consanguinity with other species, though upright standing with hands able to manipulate things in a more facile manner than other organisms. In general, however, there is the kind of animal that is closest in its integration with a simple environment. The activity of the individual organisms is describable merely as metabolic, sexually reproductive, and primarily ecological physiologically.

Stage Two. The next stage of evolution though also primarily manipulative has become surrogatory. That is, organisms find objects of wood, bone, and ivory with which to cope with larger enemy and food animals. Thus opening new horizons of activity, more flexible and more effective.

Stage Three. Gradually hominids begin to appreciate that the environment not only is something that exists but also changes so that some spontaneity and expertness is necessary for obtaining food and shelter, especially since the pristine family has grown to group proportions. Also, the need to cope with other similarly evolved organisms initiates new capabilities which are stimulated to develop by such competition and clashes.

Later Stages. Numerous stages of evolution must be assumed. The search for food, the care of the young, and many other circumstances incidental to the growth of populations open the way for more and more complicated interbehavior with the environments. Thus are evolved activities now called

part, the process includes many casual and contingential procedures. Moreover, individuals are never under unilateral control by things or persons, but also exhibit the spontaneous and inventive traits that make for changes in the institutions of the group whether favorable or unfavorable.

MULTIPLICITY OF NATURES

It follows, then, that there is no such entity, unique object, or principle as human nature. There are as many human natures as human persons, and to a great extent, the characteristics of each individual depend upon the cultural conditions into which individuals are born and develop (Kantor, 1929, 1982). Consider the population of any hominid community. Some participants live entirely on the low level of biological survivorship while others partake of various levels of cultural evolutions, for example, art, science, inventions, and other factors of hominid advancement. No stable criteria exist for scaling personalities or natures in the abstract. Only when one adapts the specificity principle of clinging to actual organisms, particular institutions, behavior, and behavior changes, can one discern similarities and differences in hominid natures, whether in domestic, societal, economic, technological, or intellectual situations.

Of the greatest importance for appreciating the numerosity of natures is the avoidance of the linguistic confusion of constructions and events. The abstract and singularity of nature is only linguistic construction while the multiplicity of natures is essentially a matter of modes of behavior of persons and therefore actual events. A good example of the confusion of constructions and events is to report that each nation speaks its specific language. Spaniards speak Spanish but actually since speech is individual behavior, one must take account of the Spanish dialects and the component sub-groups like Catalanian and Basque behavior.

HUMAN NATURE IN GROUP COMPARISON

Since human nature in group perspective consists exclusively of the natures of individuals, a convenient group study procedure is to select a few categories from the inventory of individual and group characteristics. An examination of such categories aids in the discovery of the trends of personality development and the maturation point reached. For our present purposes, we select the categories of (a) general living style, (b) philosophy, and (c) science.

A. STYLE OF LIVING

For expository purposes, we stress comparisons among the more general

and more advanced of the traits and behavior of groups. We cannot neglect the ever present variations in the cultures of different groups developed as functions of the specific circumstances prevailing in the groups. Account, of course, must also be taken of period differences because of changes and new discoveries, for example, the gradual use of metals, the expansion of agriculture, and the many sorts of multiplication of industries. To be mentioned too is the fittingness of components of living systems. The differences in the detailed impedimenta and practices of particular civilizations signify the adequacy or inadequacy of things and conditions for the specific groups in which they exist and function.

B. PHILOSOPHY

Ethnological studies indicate that it is a common condition that groups of human beings develop attitudes toward the environment in which they live. For the most part, these philosophical attitudes appear to be religious in the sense of beliefs about transcendental subjects. Here again, human nature in the sense of beliefs about the ambience is conditioned by the groups in which individuals are born. In this category as well as the former one, there are no definite criteria for scaling. One has to conclude that there are differences of only a moderate sort based on differences in the institutions of the group. The very fact of the differences in the comparisons between groups indicates the absence of any kind of innate or inborn reactions. In each case, human nature is a relative condition and varies with the groups in which individuals find themselves.

C. SCIENCE

It is a convention among hominids that the particular group in which they live and the impedimenta of their particular civilization are superior to that of all other groups. Ethnologists report that the members of very simple cultures are actually superior in some ways to more complex peoples. But for an adequate understanding of human nature, it must be indicated that even the most elaborate and socially developed group cannot boast of being the best.

It appears to be one of the most difficult errors of students of human nature that European ethnologists treat simpler civilizations as inferior groups. European ethnologists assume that they alone possess the scientific equipment to interpret the impedimenta and the practices of "inferior" groups.

In this connection, it is important to notice that science which is probably the highest form of human evolution is tainted with the same kind of transcendent principles as is the case with the so-called primitive peoples.

This can be illustrated by several important disciplines of humanistic science, psychology, and linguistics.

Pertinent it is to mention at this point that scholars have been aware of the admixture of event observation with supernatural interpretation, rationality with irrationality, but without procedural change. Reference may be made to the work of Dodds (1957) concerning Greek science and Barber (1981) with relation to

(a) Psychology. Scientific records indicate that while it is the nature of scientists to be very meticulous in reporting what they observe when they work within the particular discipline in which they have been trained, they still inject transcendental notions into their work. That is, they may report precisely what they observe and what their instruments record, but they may still be influenced by the spurious philosophy of the group in which they live. Hence they drag the most advanced civilization down to the level of the simplest groups of hominids. A striking instance of this situation is provided by the cases of eminent scientists, persons who are at the very top of their profession and who have been recognized as of the highest caliber, still entertain the notion that there are two kinds of knowledge, one of scientific investigation and the other religious intuition. They maintain notions of deities and forces which are only mistakes and perversions of speech. In recent times, even expert biologists indulge in the belief in creation by supernal powers, and this long after biology as a natural science has passed through the stage of believing in vital essences.

One of the most striking examples in which the peak of evolution of hominids is no higher than that of primitives is when psychologists retain the religious belief that man is a dual being made up of material substance on one hand and psychic principles on the other. Even in connection with the most elaborate investigation and experimentation, the belief is maintained that psychology is concerned with processes outside all spatiotemporal limits. Such situations are definitely reminiscent of early religious views that have interprenetrated current scientific disciplines.

(b) Linguistics. One of the most recent scientific disciplines to develop is linguistics. This new discipline is an outgrowth of an earlier type of study which was called philology. Despite the fact that language and speech are among the most essential and effective types of psychological behavior, it is only recently that students of language attempted to make their study scientific, that is, to take account of the psychological and other aspects of speech and language.

Unfortunately, the new discipline did not get completely detached from the old. Philology developed as a study of texts, in the first instance, sacred texts and dynastic annals. Later, linguists developed studies of meaning and structure of texts or words, the outcome of which work resulted in the development of grammar, that is, phonology, morphology, syntax, and semantics.

It appears obvious that if linguistics is a branch of science, it should pay

great attention to the activities of persons speaking and being spoken to, but this is not a popular theme in the linguistic field. Instead, there is introduced into the new discipline many metaphysical ideas. The psychology is mostly antiquated. Even prominent students of linguistics build theories about the nonexistent mind, which is the center of innate ideas in the sense that the mind acquires linguistic capacities by virtue of its preordained powers.

It is evident that linguists make use of such metaphysical processes as psychic inheritance and other misleading ways of thinking. Basically, linguistic students entertain fantastic ideas about human nature.

Scientific linguistics indicate that speech and language consist of a three-phased system in which a speaker performs established types of action in order to convey some information to a hearer or listener about some thing or event. Great stress is placed on the fact that speech is a type of adjustment to both his hearer, which may be himself, and some event. The names of these three aspects are referor, referee, and referent (Kantor, 1936, 1977).

SUMMARY

Problems of human nature are approachable from two entirely different premises. In one, there is the recurrent theme of a substantial entity inhering in organisms, and in the other, human nature is regarded as actual ways of organisms interacting with the things and events of their environments. Only the second approach is naturalistic and antimetaphysical.

From the standpoint of natural science, there can be no alternative than to regard human nature as anything but specific ways organisms interbehave with the many surrounding things and conditions. Human nature is, then, a matter of individual difference unique to specific organisms, no two of which are exactly alike. But even in the case of a particular individual, there is no static identity. When component circumstances change, the human nature of persons also changes.

The naturalistic approach centers about actual organisms in their biological, ethnological, and psychological developments. The emphasis is upon the evolution of hominids in both their biological and cultural natures.

After hominid organisms attain their complete biological maturation, they enter upon a process of culturalization through which they take on specific identifications as participants in particular communities. This culturalization process results in unique personality traits of speech, thinking, artistic creation, and general style of living.

Because of the great complexity and variety of hominid and cultural living, human nature is very specific so there is no general entity or substance to cover all behavior and human relations. Actually, there are many natures covering all sorts of interactions and characteristics.

The term "human nature" is a construction, not a thing or event. Furthermore, hominids are also idiosyncratic as well as cultured and this makes room

for all types of individual differences. Another basis for the variation of hominid natures is the varying proportions of the three factors of development, the biological, cultural, and contingential. Some natures are more biological than cultural or contingential while others follow cultural lines more and still others are better classified as predominantly influenced by changing contingencies of everyday events.

When the member of a community takes on the traits belonging to a given group, say a certain mode of language, of religion, or of public rites, that individual still varies from other members of the same group in some respect or intensity of action. There are, then, as many human natures as there are individuals in a group, and the personality of any individual changes with the shiftings of any components of particular behavioral fields.

What then is the essential nature of hominid organisms? It can only be told in words and symbols as a momentary integration of biological (physiological, anatomical, and ecological) components, plus the effects of culturalization, plus the accidents and exigencies of immediate ambient circumstances.

The following symbols may serve as a partial and abstract representation of the nature of human anture.

$$HN = f(BE + CE + AC)$$

where BE = biological evolution, CE = cultural evolution, AC = environing circumstances.

The writer proposes that this formula and its interpretation may be useful in understanding mankind as the exalted beings some individuals show themselves to be-the artists, inventors, thinkers, and the modifiers of premises and postulates-as well as the opposite performers of destructive and voracious behavior and effectors of genocides, holocausts, and exterminations.

REFERENCES

Barber, B. Resistance by scientists to scientific discovery. Science, 1961, 134, 596-602.

Dodds, E. R. The Greeks and the irrational. Boston: Beacon Press, 1957.

Hallpike, C. R. The foundations of primitive thought. Oxford: Clarendon, 1979.

Kantor, J. R. An objective psychology of grammar. Bloomington: Principia, 1936.

Kantor, J. R. An outline of social psychology. Chicago: Follett, 1929.

Kantor, J. R. Cultural psychology. Chicago: Principia, 1982.

Kantor, J. R. Psychological linguistics. Chicago: Principia, 1977.

Levi-Strauss, C. The savage mind. Chicago: University of Chicago Press, 1966.

Levy-Bruhl, L. Primitive mentality. New York: Macmillan, 1923.

Radin, P. Primitive man as philosopher. New York: Appleton, 1927.

Tylor, E. B. Anthropology: An introduction to the study of man and civilization. New York: Appleton, 1899.