

## ORIGIN OF MAN AND CULTURE

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**ABSTRACT.**—Culture (systematic regulation of behavior) originated when mankind's immediate subhuman ancestors sanctioned or tacitly recognized as right and proper a certain set of existing natural habits.

Mankind is separated from other anthropoid species by culture, the faculty of regulating human behavior by rules. So far as known, no other primate (or other animal) species has ever achieved this. If it can be ascertained which of the successive ancestral groups first established culture, the generalized structure of its representatives will be the physical type of the human species. On this premise, man's ancestors before crossing the threshold of culture were simian; thereafter human. Since species differ in important physical structures, and human behavior is vastly more varied and complex than that of any other primate group, the foregoing statement is clearly too categorical. Such important quantitative and qualitative differences must have been long in process before culture emerged. As has been shown elsewhere, the simplest possible human society is the hunting tribe (Deuel, 1966). A species with the usual primate habits could not, in reason, be credited with changing overnight to a human society with so complex a sociocultural

system as even the simplest hunting tribe exhibits. There must have been a long transitional period during which these primates adopted those habits without which they would have been unable to initiate cultures.

The wild primate species from which mankind descended, their mechanical abilities and associational habits, cannot be observed. Nor does the study of living great ape species yield more than hints to prehuman behavior since none represent a group directly in the line of human descent. However, earlier subhuman primate ancestors of man were herbivorous and presumably lived in a condition similar to that of presently existing apes. For this reason recent studies of these wild species throw a helpful light on the habits and associations of the subhominid species before it began to diverge in the direction of culture and man.

Zuckerman's observations of a captive colony of Hamadryad baboons revealed an association ("harem") normally composed of a chief male ("overlord"), his female associate or associates, their young and a casual hanger-on ("bachelor") or two (1932, pp. 225-6). All baboons in the wild apparently live at times "in family parties, but more usually in large hordes" (Ibid p. 194).

The composition of the chimpanzee groups in one natural area at least is variable as to sex and age. Moreover, members move freely from one group to another (Goodall 1963, p. 282).

The mountain gorilla on the other hand lives in relatively stable groups of fifteen to twenty individuals. These associations, though smaller than primitive hunting bands, are sufficiently large to constitute a number of distinct breeding pairs or "polygynous" sets. Whether or not such relationships or group sexual promiscuity exists is unclear and very possibly impossible to discern (Schaller 1963, pp. 237-8, 244).

It seems not unreasonable to assume, that among the various forms of primate associations, that mankind's subhuman plant-eating forebears lived into "natural family" groups resembling the Hamadryad "harem" or that similar subunits developed into a gorilla-like horde. The hypothesis that the family was foreshadowed in early subhuman associations is strongly supported by the fact that not only is the family the ever present and most enduring social unit but it is basic in the social organization and control of all societies (See White 1949, p. 315).

Captive great apes, especially the chimpanzee, have been shown capable of using crude tools spontaneously under the challenge of hunger, of learning through experience, and of being taught within limits (Köhler 1951, pp. 31-6, 125-8, Hayes and Hayes 1955, pp. 110-123). Recently Goodall has reported seeing chimpanzees use natural objects as tools, modify material (i.e. make a tool) from time to time for a specific pur-

pose and sometimes carry it from one place to another (1963 pp. 307-8).

Judging from the cultural behavior in the simplest societies and their counterparts among living species of anthropoids, some of the habits of mankind's subhuman ancestors can be reconstructed. As White has noted in social or biological evolution the new almost invariably grows out of or is based upon the old (1949 p. 315). In brief, man's early primate ancestors were probably organized into relatively permanent "natural family" groupings, each stabilized by the mutual psychological needs of its members and the dominance of its chief male. Neighboring units gathered more or less frequently into a loose aggregate of "families." Individuals had the capacity to use sticks and stones as tools but probably exercised it rarely.

The family-like group, the friendly intergroup aggregations, the use of fire, a diet predominantly meat sustained by hunting and supplemented by collecting, the division of labor on a sex (and age) basis, cooperative experience within the group and during intergroup gatherings, technically controlled shaping of specialized tools and weapons, increase in skills, intergroup fighting and revenge, using weapons, a flexible speech structure, training of young within the group, and tradition existed and had to exist before these prehuman primates could assume the numerous and exacting obligations of a culture.

Although outward appearance the anthropoid habits enumerated are identical with customs of primitive hunting tribes, they lack one

ingredient essential to culture. In human society, the customs or rules that regulate human behavior include an implicit agreement or acceptance by an overwhelming majority of the people that the regulations are right and proper and must be obeyed (Radcliffe-Brown 1957, pp. 56-7, Malinowski 1944, p. 43). This conviction, held in concert, so to speak, by the people of a society, constitute sanction.

Primitive people receive their customs together with the sanctions from their elders while growing up. How did the sanction that exists in primitive cultures first originate? Today laws are legislated into being and are usually accepted as binding. In what manner did the original customs appear and how were they sanctioned?

Here again there is no direct evidence. However, recent practice in England and in the United States perhaps throws some light on the subject. There is, or was until recently, a principle of custom-forming by which, under certain conditions, long-established habit became recognized as law. "Proof of unbroken possession or use of any right" from "time immemorial" ["formerly an indefinite time beyond 'legal memory' so-called"] made it unnecessary to establish an original grant," [that is, made future possession secure as if an original grant had been made]. (Webster's New International Dictionary, 1950 Edition under "time immemorial").

The example cited is one of a number of special cases of a more general cultural principle, that includes cohabitation, vested rights, and ease-

ments. In modern western societies (nations), regulations or laws governing human behavior are enacted by legally constituted law-making bodies though they are eventually subject to rejection or sanction by the people. In primitive societies, no individual or group could promulgate laws or change established custom. The example just cited is probably a vestige of an earlier common procedure by which long-continued habits of a people became binding customs.

The reasoning from this point is that important individual and associational habits of the primate forebears of man were concerned primarily with behavior involving the satisfaction of basic needs. Prior to sanction, each habit was widespread in the primitive association. Since the habit had persisted harmoniously for an indefinitely long period, each was eventually accepted and recognized as standard for behavior in like situations. (Presumably the newly created customs were of benefit to the society in that they satisfied the basic needs of the individual in association with his fellows.) This recognition was not an aggregate of consciously weighed and reasoned alternatives; it was a tacitly recognized fact in the minds and behavior of those in the group, a concert of conviction arising from long continued conditioning by the harmonious operation of the habit. Stated as a general conclusion, the important habits that had developed and been followed continuously in prehuman primate associations for years beyond the memory of anyone living, produced a conviction that they were right and proper and had to be

obeyed. In more technical terms, they were sanctioned. The answer of the primitive tribesman "We do thus and so because our forefathers did it this way" denoted the seal of sanction on a custom. The young became accustomed to acting like their parents in accordance to existing forms of behavior and were thus conditioned to accept the sanction. (If customs originated in the foregoing manner the ways of life of a primitive tribe included habitual behavior as well as that regulated by custom.)

If the sanction of previously existing habits resulted in culture and elevated a group of primates to the status of mankind, it still remains to ascertain at what point it happened. Radcliffe-Brown has pointed out the differences between the recognition of economic and social rules. The economic custom is conditionally accepted, the social is mandatory. If you wish to make a good bow and arrows you must follow certain technological rules; if you don't, you fail. On the other hand the social rule that a father should not marry a close relation, for example a daughter, must be obeyed. There is no choice (Radcliffe-Brown 1957, pp. 98-99). *Compulsive regulation* in the primitive economic field (where it occurs) is social (e.g. rules of private property ownership, conveyance and inheritance) and seems to exist as a means of guaranteeing the individual's "natural rights." In advanced cultures, social control in economic matters is much enlarged, (e.g. working hours and con-

ditions, right-to-work laws, and their nullification, minimum wage, etc.).

If the condition achieved by newly created man as described above be considered as society and the rules to which he had subjected himself as culture, it is possible to define these realities in general terms: *A culture* is a social directive system that sanctions an autonomous society with its constituent units and institutions, prescribes the manner in which it operates, provides the means to maintain and perpetuate itself and lays down the rules to regulate the behavior of the individual to these ends.

To determine which hominoid type was responsible for the crystallization of the habit system into cultures, we must turn to archaeology. The association of hominoid skeletal remains with cultural evidence found at a crucial site will solve the problem. The employment of ecological devices must, however, be used with caution since artifacts made by pre-human primates are not directly distinguishable from the simplest human kind, or in other words the point at which human culture originated cannot be determined directly by the inspection of artifacts produced by the successive representatives of the hominid line. Unfortunately neither social customs nor sanction leave objective remains. Nevertheless, archaeology with due regard to its limitations, can narrow the locus if not actually determine the position of the point sought, by providing the objects on which to base the necessary inferences.

LITERATURE CITED

- DEUEL, T. 1966. The minimal society. Trans. Ill. Acad. Sci. 59:20.
- GOODALL, J. 1963. "My life among wild chimpanzees". National Geographic Magazine. Vol. 124. No. 2, Aug. 31 p.
- HAYES, K. J., and C. HAYES. 1955. The cultural capacity of chimpanzees in Gavan, J. S. The non-human primates and human evolution. Wayne Univ. Press. Detroit. 16 p.
- KOHLER, W. 1951. The mentality of apes. The Humanities Press, New York. 336 p.
- MALINOWSKI, B. 1944. A scientific theory of culture and other essays. Univ. of North Carolina Press. Chapel Hill. 228 p.
- RADCLIFFE-BROWN, A. R. 1957. A natural science of society. The Free Press. Glencoe, Illinois. 156 p.
- SCHALLER, G. B. 1963. The mountain gorilla. Univ. of Chicago Press. Chicago. 431 p.
- WHITE, L. A. 1949. The science of culture. Farrar, Straus & Cudahy, Inc. New York. 444 p.
- ZUCKERMAN, S. 1932. The social life of monkeys and apes. Harcourt, Brace & Company. 356 p.

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