KINSHIP TERMINOLOGY AND SOCIAL STRUCTURE 1

Ralph L. Beals

In 1934 A. L. Kroeber touched off a discussion with A. R. Radcliffe-Brown when he published "Yurok and Neighboring Kin Term Systems" (Kroeber, 1934). In this paper Kroeber raised the issue "of how far social organizations and kinship terminologies tend to be correlated." Briefly, he discussed five tribes in northwestern California--Yurok, Wiyot, Tolowa, Karok, and Hupa. He finds among these five tribes that:

. . . actual societal organizations and practices are uniform almost to identity. Their kinship terminologies, on the contrary, appear to go back to two quite different fundamental types of patterns. These have traceably influenced each other at a good many points.

The Yurok-Wiyot system "is fundamentally similar in plan to the Salish-Wakash systems," while the "Tolowa-Hupa-Karok system is widespread in peripheral northern and central California."

Kroeber then proceeds to offer several possible historical interpretations of these differences. In his conclusions he suggests that:

Kin-term systems, like everything else organized in a culture or speech, have essential or basic patterns. Like all other patterns, these are subject to modification from within and without.

He urges the consideration of changes historically to find what features of pattern are more essential. He also points out that:

. . . patterns in different aspects of culture may inter-influence each other heavily, whereupon they tend to aggregate into greater patterns; or they may influence each other relatively little, each essentially going its own way for a long time even within one culture.

Kroeber then reemphasizes his view that in the five tribes considered there have long been operative two kin-term patterns and but one complex pattern of social institutions. Finally, he points out that such "dissociation of kinship and institutional patterns" is probably not normal and may be infrequent, and refers to regions where close association has been demonstrated.

Much of Radcliffe-Brown's (1935) commentary is devoted to an exposition of his well-known views on history and the difference between ethnology and social anthropology and will not be discussed here in detail. More germane to this paper is his formulation of his "fundamental working hypothesis, viz.,

This paper was prepared with the assistance of Mr. Ronald Waterbury. Mr. Waterbury is entirely responsible for assembling the data in Table 1 and Putting it in final form. He also suggested important revisions of several Paragraphs in the manuscript.

that any system (meaning thereby the total social structure and the totality of social usages of a defined group) must normally possess a certain degree of functional consistency." From this hypothesis, he derives a subsidiary hypothesis that:

... we may expect to find, in the majority of human societies, a fairly close correlation between the terminological classification of kindred or relatives and the social classification. The former is revealed in kinship terminology, the latter in social usages of all kinds, not only in institutions such as class or special forms of marriage, but specifically in the attitudes and behavior of relatives to one another. (Emphasis supplied.)

Radcliffe-Brown then asserts that the important matter is whether there is inconsistency between the social classifications of relatives and the kinship terminology. He adds that there is insufficient published material on all five tribes to determine this. What Kroeber has done, he asserts, is to "present an instance of absence of correlation between social organization and kinship terminology." Radcliffe-Brown then states:

So far as my own position is concerned this means nothing. We cannot infer from the differences of kinship terminology that these tribes have different social classifications of relatives, but still less can we infer the contrary from the fact that their village and domestic organizations and their customs of marriage show a considerable degree of similarity.

In this statement Radcliffe-Brown seems to restrict the application of functional principles to a very limited range. In effect he states that inconsistency between kinship terminology and the institutions of a society is of no importance. It may be that Kroeber did not demonstrate to Radcliffe-Brown's satisfaction the existence of a discrepancy between the various systems of kinship terminology considered and the social classification of relatives. But Kroeber did demonstrate that there is discrepancy between the kinship terminology and the social institutions. If it should turn out that in the northwest Californian case the social classifications of relatives are consistent with the various kinship terminologies, then clearly there must be no functional relationship between social classifications and the social institutions. In the light of a good deal of modern analysis of social organization, such a situation would be quite extraordinary and quite as demanding of explanation as would be the inconsistency of terminologies and social classifications.

In his reply, Kroeber (1936) ignored the matter in the preceding paragraph and devoted most of his discussion to the importance of language as one of the interdependent systems involved in kinship terminologies and to further examples of historical influences which mar the fit of kinship terminologies with social usages.

In the years since the exchange of ideas summarized above, functionalist views have been widely accepted. Few anthropologists can be found today who do not accept the proposition that social and cultural subsystems tend to have some functional relationship with one another. On the other hand there persist some intellectual heirs of Radcliffe-Brown who have, I think, gone further than would even the master in asserting the closeness of the relationship between kinship terminology and social usage. Some even have seemed to say that social usages

may now be reliably inferred from the kinship terminology to the point where these anthropologists are ready to rewrite ethnography in their studies. 1 With these extreme cases I do not propose to deal here.

In the meantime a growing number of anthropologists have recognized that functional interrelationships exist among a much wider range of variables than those ordinarily stressed by Radcliffe-Brown or many of his followers. At one level, many neofunctionalists consider that although the cultural and the social system of a given society may be considered independently for the purposes of some types of analysis, they form a whole between whose parts functional (and of course alternatively disfunctional) relationships exist. At another level, functional or disfunctional relations exist between the sociocultural system and its subsystems and the ecological system of the group under study. Such relationships exist in all societies but become more obvious and explicit in societies of simple technology.

Because of the many usages of the term ecology and its importance to my subsequent discussion, my usage should be made explicit. By ecology I refer to a system or series of systems of relationship between man and his environment (the word "relationship" here is the key term). The most obvious and the most frequently recognized set of relationships is that between the physical environment in the broadest sense--including soils, climate, topography, drainage, aspects of the biosphere present in the location, and mineral resources -and the technology of the cultural system of the society. In addition, however, ecology also includes other sets of relationships. One involves those cultural subsystems which affect the use of the resources of the physical environment (e.g., food taboos or preference for one resource to the neglect of others) and the technology (e.g., cultural restrictions upon the use of certain tools). Another set of relationships is between the resources of the physical environment and social subsystems which promote or inhibit their utilization (e.g., presence or absence of organized social activities such as group hunting Where this might contribute to efficiency). Here it might be noted that shortterm functional relationships may be disfunctional in the long term (for example, communal fire drives producing long-term detrimental changes in the biosphere, climate, and even soils). Finally, it must be noted that any human Population or society exists in a cultural and social environment consisting of other cultural and social systems. Depending upon the nature of the relationships with the cultural and social environment, these systems may or may not provide models for the improvement of the ecological system (e.g., improved technologies or more efficient ways of organizing the application of technology) and for innovations in other aspects of the social and cultural systems. Lacking such models, a society may invent a solution to a problem or an improvement to an existing solution, or the problem may go unsolved or unperceived. Finally, such influences from the cultural and social environment may be adopted because of novelty or relative prestige factors, despite the fact that in more or less subtle ways the innovation may be disfunctional or represent higher costs than do other possible solutions.

The most fully developed employment of the ecological concept as part of an attempt at comprehensive analysis of sociocultural phenomena is perhaps that of Goldschmidt (1959), who emphasizes the relationships between ecology, sociocultural evolution, the effects of cultural accumulations, and functional

relationships in what the late Clyde Kluckhohn called a deceptively simple fash, ion. Another systematic approach of importance is that of Julian Steward, whose early papers (reproduced as part of Steward, 1955) were especially stimulating discussions of the effect of different ecological relations upon social organization. The energy-technology-society formulations of Leslie White may also be considered a contribution to the ecological problem, although I am not sure he will welcome being included here. In addition, many smaller contributions have been made to the development of ecological interpretations (e.g., Beals, 1954, 1958; Beals and Hester, 1960; Barth, 1956; Thompson, 1949; Gayton, 1946; Hallowell, 1949; Wedel, 1953; Kirchhoff, 1954. The list is neither complete nor sys tematic. It is perhaps significant that all but two of the persons mentioned were students of Kroeber or closely associated with him). Without exception all the writers mentioned have pointed out functional relationships between the ecology and the social and cultural systems. Additionally, various contemporary social anthropologists stress the importance of ecology, e.g., my colleague M. G. Smith.

With Kroeber's extensive interest in ecological problems (perhaps most systematically expressed in Kroeber, 1939) it is surprising that he limited his arguments in the Yurok case purely to linguistic and historical factors affecting kinship terminologies and social institutions for he already had at hand the most critical data I shall employ. Part of these data he gathered in a survey of western Mexico when he obtained kinship terminologies from several groups, the most crucial being from the Seri (Kroeber, 1931). That these terminologies were hastily collected and have required some revision and that the details of kin behavior were not collected in the detail satisfactory to a social anthropologist is beside the point for the basic problem to be considered.

Through a large region of northwest Mexico the Uto-Aztekan speaking peoples for whom we have reasonably adequate data exhibit a number of similarities in methods of classifying kin (table 1). In addition, many show lexical similarities in the terms used. In some cases similar terms have the same meanings; in other cases the meanings are shifted to a varying degree. I will not analyze the entire table but indicate an example. The term for older brother among the Tarahumara is bachi, among the Huichol maaci, among the Cora ha'a. Among the Cahita avaci appears but is limited to older brother female speaking. Shimkin (1941) notes similar forms, sometimes with varied meanings, in the sibling terminology among widely spread groups. Of special interest is Serrano and Cahuila pas, older brother. Shimkin further notes that the Tarahumara (the only one of our groups he analyzed in detail) had the highest retention of probably original Uto-Aztekan stems (12) and the highest retention of stems with original meanings (12).

The four Uto-Aztekan systems compared in the table also show a number of similar tendencies in the classifications employed. These include tendencies to stress (1) distinctions between generations; (2) distinction of maternal and paternal lines; (3) emphasis upon relative age; (4) extensive discrimination of sex of both ego and object; (5) extensive use of reciprocity. Shimkin's attempt at reconstructing proto-Uto-Aztekan concludes (1941:228-229) that the classifications in the proto-system are

. . . largely consistent with a few principles; e.g., the dichotomy of kindred into those younger and those older than oneself. The former are

fully differentiated for every difference of their own sex and that of the intermediate lineal relatives (Ego, for "child"). The basic significance of seniority is further illustrated by the age divisions of father's brothers and mother's sisters—the lack of lexical evidence for father's younger brother and for mother's older sister may indicate their original identification with some other terms. Self-reciprocity is another important concept.

The classificatory principles most emphasized in the groups here discussed hence appear to have roots far back in time although showing some alterations and in several cases extensive elaboration of some classifications.

To illustrate some of these points I will again discuss selected examples from table 1, including in this discussion the Yuman-speaking Seri. Reasons for the inclusion of the latter will become apparent later.

Examining the sibling-cousin categories of relationship, all five groups consolidate cousins of all types with siblings. Cora, Huichol, and Seri each has a general term for sibling (and cousin) employed by speakers of both sexes (in Seri the stem is augmented to mean "distant sibling"). In addition Cora and Huichol have terms for older brother and older sister, while younger brother and younger sister have the same term of address. Tarahumara goes a step further with four terms distinguishing older and younger brother and older and younger sister. In addition there is a separate term for younger sister. female speaking. The Cahita have five terms. These include older brother, male speaking, and younger brother, male speaking. Female speakers also use separate terms for older and younger brother, but the term for younger brother, female speaking, is also applied by speakers of both sexes to younger sisters. Finally, both sexes use the same term for older sister. The Seri on the other hand show even greater elaboration with a total of ten terms for sibling. addition to a generalized term for all siblings and term for older brother used by both men and women speakers, there are eight terms distinguishing siblings on the basis of relative age and sex of speaker. That is, males employ four terms distinguishing older brother, younger brother, older sister and Younger sister, while a different set of terms is employed by female speakers. The application of sibling terms is normally controlled, not by the relative age of ego and the cousin addressed, but by the relative age of the connecting parents.

In accordance with the last observations, the Cahita employ separate terms distinguishing father's older brother, father's younger brother, father's older sister, mother's older brother, mother's younger brother and mother's older sister. A single term is used for the younger sister of both father and mother. The Tarahumara make some additional distinctions on the basis of sex of speaker. The Seri appear to follow the Cahita system closely but do not distinguish the age of father's sisters. The Cora and Huichol simply distinguish father's and mother's siblings, although among the Cora the two sexes use different terms for parent's brothers.

Terms for the children of siblings for the Tarahumara and the Cahita involve a high degree of reciprocity. (The Cahita situation is somewhat confused and the terms are not included in table 1. For details see Beals 1943:48.) The Seri make a number of distinctions based on age of sibling and on sex of speaker. Men distinguish between children of older and younger brothers, while women distinguish between children of older and younger sisters.

Adequate information concerning the actual sets of attitudes and behaviors toward relatives in aboriginal times is, of course, impossible to obtain. The terminologies, however, are entirely consistent with the type of bilateral family organization and bilateral inheritance of property found among the modern descendants of these groups.

The foregoing analysis should make clear the emphasis on generation, upon relative age, and upon sex of ego and object. Even a superficial examination of table 1 will show the distinction of paternal and maternal lines and other features of reciprocity and they will not be discussed in detail.

The evidence presented suggests clearly that in these widely distributed linguistic groupings (none of the units dealt with are single "tribes" or social units bounded other than by language), the four peoples speaking Uto-Aztekan languages show lexical similarities in the kinship terminologies and tend to emphasize similar classificatory categories. In many cases both lexical material and the principles of classification emphasized may be traced to reconstructed proto-Uto-Aztekan and many are very widely shared among existing daughter languages and kinship systems.

The influence of both linguistic and historical systems upon both terminologies and classifications seems inescapable. Nevertheless there are significant variations between the various groups. These variations, could we know the original attitudes and behaviors toward kin, might easily be explainable in terms of classical functional analysis.

So far no difficulty appears. But what of the other aspects of functional interdependence, particularly the ecological? Of the four Uto-Aztekan groups listed, all but the Cahita are primarily peoples of the Sierra who practiced a somewhat precarious digging-stick horticulture based upon rainfall. In the past, some dietary supplement through hunting and gathering is likely, although in modern times such natural resources are extremely scanty. At present domesticated animals are of some or of major importance. The size of settlement groups seems to be closely related to cultivable lands. These occur in scattered areas of quite variable size, characteristically separated by noncultivable terrain of differing but always considerable ruggedness. Among the modern pagan Tarahumara, for example, the size of the settlement is directly connected with the size of accessible arable land and the availability of pasture for the animals which are essential to the modern culture, not for meat, but for fertilizer to maintain productivity of the poor mountain soils. Often separated from one another by several or many hours of travel time, in size these settlements probably average smaller populations than do bands in the Central Australian desert. As inheritance is bilateral, residence is often determined by where a given family couple has inherited the most land (Kennedy, 1961).

The pattern of settlement, family characteristics, land inheritance and residence patterns are somewhat similar among the other Sierra-dwelling groups such as Christian Tarahumara, Cora, and Huichol. A major modification is that

most of the population of the remaining groups live in less rugged areas offering larger patches of cultivable land situated somewhat closer to one another. Consequently, settlements often were larger and some sizeable towns established under mission influence have managed to persist. This is true especially of the Cora, although the latter have been one of the groups in the whole western Sierra region most resistant to acculturation. The Huichol, on the other hand, tend to be more scattered although retaining the nuclear town center (Hinton, 1961). Nevertheless, in some parts of even the southern Sierra, isolated houses are found as much as a half-day's journey from one another.

The kinship terminology which most elaborated the features I have emphasized was that of the Cahita or at least the northern Cahita (few data survive for the extinct southern groups). Here the type of agriculture differed radically from that of the Sierra peoples, depending upon the seasonal flooding of land by rivers traversing the coastal plain. In normal years this often involved hundreds of square miles of some of the most fertile land in the Americas. Not only was highly productive horticulture possible on a continuous basis but on the hot coastal plain in most years two crops were possible. Although populations along the river valleys were isolated from those on the next river system, peoples such as the Yaqui, numbering some thirty thousand, were settled in small communities located close to one another and averaging about 300 persons per community. In addition, they possessed a version of the organized warfare complex of Middle America and had sufficient tribal cohesion to muster fighting men from a large number of settlements, perhaps encompassing the entire linguistic group. The Yaqui thus were able to resist Spanish military incursions successfully until they voluntarily accepted missionization in 1613. In contrast to the Sierra-dwelling peoples, the Cahita lived in a hot dry climate with low rainfall and a very brief mild winter in which frost occurs about once in ten years. The major difficulty in farming was with initial land clearing, combatting weeds, and occasional irregularities in the river flooding pattern. Even in the event of crop failure, extensive mesquite forests and abundant game provided a safety factor (Beals, 1943, 1945; Spicer, 1954).

One must then ask why, with such a different ecological base and a quite different settlement pattern with very different institutional arrangements, the Cahita should share many of the same patterns of kinship terminology with their far-flung linguistic relatives in the Sierra. The substantial number of shared lexical features in the terminologies certainly suggests some historic relationship. On the other hand, the placing of major emphasis in the system upon the same kinds of categories seems inexplicable in terms of any close functional relationship with other aspects of the society and the whole ecological picture. Despite the impossibility for close analysis of the systems of aboriginal attitudes and behaviors between kin, any explanation which suggests that the relationships between brothers among the Cahita was the same as among the Tarahumara is questionable to say the least. Cahita brothers lived in the same compact village in a military-oriented society open to raids across the uninhabited surrounding desert, whereas Tarahumara brothers very frequently lived in different small rancherias, often hours or days apart, and where most of the rare conflicts were almost certainly in the nature of minor feuds.

If the similarities within the group of Uto-Aztekan speakers demand some sort of explanation, the Seri, Yuman-speaking neighbors to the north of the

Uto-Aztekan Cáhita, are even more perplexing. The Seri were nonagricultural, lived mainly along the coast, with excursions inland into areas of extreme desert conditions without permanently (although often recurringly) occupied settlement sites. Survival was dependent primarily upon widely scattered permanent and seasonal water holes or "tanks," upon abundant but seasonally varying marine resources, and upon skillful exploitation of a meager desert environment with a very simple and rather carelessly executed technology. Bands seem to have been somewhat unstable in membership and were necessarily small and scattered.

Nevertheless, the Seri kinship system seems to differ extensively from that of all other Yuman-speaking groups. Not only is the number of recorded terms very large but also categories of the system elaborate the same features of generational distinction, distinction of paternal and maternal kin, emphasis upon relative age and upon sex as do the neighboring Uto-Aztekan-speaking Cahita with a quite different ecology, permanent and relatively large settlements, and a relatively elaborate set of institutions some of which transcended the village level.

Common linguistic ancestry cannot be invoked to explain terminological similarities in the Seri. Indeed, all evidence suggests that the history of the Seri is quite different from that of the Cáhita. It seems, to me at least, utterly inconceivable that such different ecological and institutional arrangements can have produced a common set of attitudes and behavior toward kin adequate alone to explain the development of such similar emphasis upon kinship categories.

Radcliffe-Brown, in his discussion with Kroeber, pointed out that there are no adequate studies of the kinship structure of the peoples compared by Kroeber. Consequently, he claimed, we do not know that there were not close correspondences between terminology and attitudes and behaviors. With the extension of functional analysis beyond kinship, this argument is no longer tenable. In the cases under discussion in this paper, it is quite true that we will never know the native kinship structure before Spanish influence in anything like the detail needed to demonstrate the degree of consistency or inconsistency with the kinship terminologies. In many cases even the terminologies are today virtually unknown to the majority of contemporary Indians because of the adoption of Spanish terms.

On the other hand we do know a fair amount about the institutional arrangements relating to kinship structure. We have therefore something closely resembling the black box problem in the field of communications. The student of communications has an unopenable black box (the brain) with a set of inputs on one side and a set of outputs on the other. We do not know at present just what goes on inside the box but we can learn that when the inputs are varied in certain ways, the outputs will change with some consistency. In the present case, as in Kroeber's California case, the structure of attitudes and relationships is the "black box." We do know, however, a good deal about the terminologies and other sociocultural subsystems.

If functional analysis has any general utility, it should be recognized that there tend to be functional relationships between all subsystems of the

whole system, and that these interrelationships are highly variable; some are direct, some indirect, and others marginal. It is the job of the anthropologist to analyze and determine which systems are more directly interrelated, which more marginally related. To say that the system of kinship terminology is more indispensably related to interpersonal behavior than is the ecological system, without evidence for such assumptions, is clearly nothing but "functional conjecture," a sin as grievous as the "historical conjecture" Radcliffe-Brown berated through the years. Put in another way, so far as the successful functioning of the society is concerned, I would venture to defend the view that inconsistencies in the kinship terminology would be less disfunctional than would be inconsistencies between many other subsystems in either the society or the culture. In short, is functionalism valid only when "functionalists" wish it to be so, or is it substantially applicable to all the subsystems of a society? Either it is the latter or it is not much of anything, and offers little hope as a method of analyzing or demonstrating what anthropologists have believed since long before the appearance of functionalism, mamely, that social and cultural systems tend to be integrated wholes.

Actually there are a number of aspects of functional analysis whose implications have been inadequately explored. Even Radcliffe-Brown (1935:531) said "that it is not an absolute, one hundred percent, but a relative degree of consistency that is posited as a necessary condition of existence for social systems." On the other hand, he and other functionalist scholars have well demonstrated that in certain areas there is a high degree of consistency between terminology and kinship system. Few if any anthropologists today, whether they regard themselves as functionalists or not, would disagree with the view that there tends to be a high degree of consistency in the terminologies and the associated kin attitudes and behavior, or that terminologies tend to change in relation to changes in the kinship system.

But in his argument with Kroeber, Radcliffe-Brown went much further than this, at least by implication. In effect, he said two things that deserve comment. On the one hand, he said that the case discussed by Kroeber was meaningless because we did not have sufficiently detailed analysis of the social classification of relatives for the five tribes compared. But he also was saying something else: He was saying by implication that the kinship system operates independently of other subsystems in the society and that the terminology is functionally related to and influenced by only one subsystem of the society. Kroeber, on the other hand, was arguing that the terminologies may be affected by other subsystems of the society and its culture, namely, the institutional system, the linguistic system, and what, to preserve modern terminology, may be called the historical system.

Now, as I have mentioned, Radcliffe-Brown indicated that at any given period of time we need not expect complete one hundred percent consistency between terminology and the kinship system of a given society. (Whether either of these is exclusively social rather than at least partially cultural is a question that merits discussion which I will not here undertake.) But Radcliffe-Brownnever indicated what percentage of consistency must be present before we could call the interrelationships of the two systems functional or disfunctional. Whatever the percentage might be, the fact that there exist any cases where terninologies are not in accord with the kinship system opens up an important set of

research problems. It is important to establish correlations between various aspects of social and cultural systems. But once any such correlation has been established, if it is less than 1.00 then the research is just beginning. The next question that must be answered is why the correlation is not 1.00?

To ask this question takes us into some form of multivariant analysis, whether we use statistical methods or not. In terms of functional analysis, it must lead immediately to examination of the interrelationships between our primary variables (here the two subsystems studied) and other subsystems of the culture. If kinship terminologies are functionally related to and only influenced by the structural subsystem of kin attitudes and behaviors, I can see no explanation of discrepancies except the invocation of chance. Although chance may operate, it seems unacceptable to me as a complete explanation and I doubt if it would have been acceptable to Radcliffe-Brown.

The invocation of "disfunction" to explain such inconsistencies is likewise hardly acceptable. The term has not been adequately defined in the literature and all too often is either an easy way to dismiss a problem without further research or is heavily value laden as Kennedy (1961) has recently shown. Disfunction, he suggests, should be limited to cases where two subsystems or elements thereof come into conflict. Each may be functional in relation to other aspects of the systems involved, but in a given situation action in accordance with one system will violate the rules of the other. On the other hand, he points out, a given subsystem may be highly functional in a society but its "cost" relative to other possible ways of achieving the same end may be very high. Disfunction thus becomes an objectively determinable phenomenon without value connotations. The cost of not having terminological distinctions for relatives toward whom one acts differently may not be very high while the disfunctional aspects may be nil.

It seems to me that the only acceptable view is that, although in many, and perhaps most cases, kinship terminologies are very closely related to the structure of the kinship subsystem, the terminological system to some degree is influenced by other social and cultural subsystems. This essentially was what Kroeber was arguing for and the kind of problem he was raising. In this respect he may perhaps have been the better "functionalist."

In the discussion of the kin-term systems of the Yurok and their neighbors, Kroeber suggested the influence of linguistic and to some extent historical subsystems to account for the great variety of terminology associated with institutional uniformity. In the cases I have described I have pointed out the existence of a wide area of similarity in aspects of the kinship terminology and the social classifications used among a number of peoples of related speech but differing ecological and institutional subsystems. Moreover terminological uniformities and classificatory categories persist not only where the ecological and institutional systems are varied, but also, in the Seri case, the categories exist where the linguistic systems are unrelated. Until functional analysis can deal with such situations instead of arguing them away on marrow grounds, it lacks something of adequacy or maturity. To me, at least, the questions Kroeber raised are still pertinent—and unanswered by "classical" functionalism. Indeed, if Kroeber's terminology were to be modernized, his position appears to be much closer to that of many "neofunctionalists" than is the position of Radcliffe—

Brown. Many contemporary social anthropologists recognize that functional relations are both direct and indirect and are of varying degrees of indispensability. If this phraseology be substituted for Kroeber's use of "influence," as quoted earlier in this paper, the similarity becomes even more striking.

ENDNOTE

1. A particularly extreme case of the view that kinship terminology rigorously conforms to social usages and behavioral patterns unaffected by other influences was recently presented by Needham (1961) in an analysis of the Siriono kinship system. He finds that matrilateral cross-cousin marriage, i.e., with mother's brother's daughter, is not "preferred" as Holmberg, the field ethnographer, has stated, but is "prescribed," this in the face of the recorded fact that of fourteen marriages in one band only six were with mother's brother's daughter. Moreover, Holmberg gives a list of persons who may be substituted if a mother's brother's daughter is not available, including nonrelatives. Recognizing that in a small group "no marriage system can work in an absolutely rigorous fashion," Needham then postulates ritual status changes in order to bring women into a marriageable category. He also finds it necessary to "explain" why behaviors between other kin seem not to reflect the "expectable" behavior between such kin in a system of prescriptive asymmetric alliance.

The proper place to establish such ethnographic "facts" for an existing society is not in the study but in the field. In this instance the story of the naturalist Agassiz's "impossible" fish should be applicable. Confronted with a specimen of the "impossible" fish, Agassiz is reputed to have remarked that an ounce of fact is worth a pound of theory. If Needham's analysis cannot be supported by actual field data among the Siriono, his theories are worthless. It is indeed strange that some followers of the most severe critics of "conjectural history" should blandly offer us "conjectural ethnography."

REFERENCES

Barth, Frederik

"Ecologic Relationships of Ethnic Groups in Swat, North Pakistan."

<u>American Anthropologist</u> 58:1079-1089.

Beals, Ralph L.

- 1932 The Comparative Ethnology of Northern Mexico Before 1750. Thero-Americana 2:93-225, Berkeley.
- Aboriginal Culture of the Cahita Indians. Bureau of American Ethnology, Bulletin 142, Washington.
- "Comments (On Gatherers and Farmers in the Greater Southwest)."
 American Anthropologist 56:551-556.
- 1958 "An Ecological Interpretation of the Southwest Culture Areas."
 Homenaje Al Doctor Manuel Gamio 255-260, Mexico.
- MS Notes on Cora and Huichol. Unpublished.

Beals, Ralph L. and Joseph A. Hester, Jr.

"A New Ecological Typology of the California Indians." Selected

Papers of the Fifth International Congress of Anthropological and

Ethnological Sciences 400-419, Philadelphia.

Bennett, Wendel C. and Robert M. Zingg

1935 The Tarahumara. University of Chicago Press, Chicago.

Gayton, A. H.

1946 "Culture-Environment Integration: External References in Yokuts Life." Southwestern Journal of Anthropology 2:252-268.

Goldschmidt, Walter

1959 Man's Way. Henry Holt and Company.

Griffen, William G.

1959 Notes on Seri Indian Culture Sonora, Mexico. University of Florida Press, Gainsville.

Grimes, Joseph and Thomas Hinton

1961 "The Huichol and Cora." Handbook of Middle American Indians, Washington. (In press.)

Hallowell, A. Irving

1949 "Size of Algonkian Hunting Territories: A Function of Ecological Adjustment." American Anthropologist 51:35-45.

Hinton, Thomas

The Village Hierarchy as a Factor in Cora Indian Acculturation.
Unpublished Ph.D. dissertation, University of California, Los Angeles.

Kennedy, John C.

1961 A Tarahumara Gentile Community: Social Organization and Extracultural Influences. Unpublished Ph.D. dissertation, University of California, Los Angeles.

Kirchhoff, Paul

1954 "Gatherers and Farmers in the Greater Southwest: A Problem in Classification." American Anthropologist 56:529-550.

Kroeber, Alfred L.

1931 The Seri. Southwest Museum Papers No. 6, Los Angeles.

Yurok and Neighboring Kin Term Systems. University of California Publications in American Archaeology and Ethnology 35:15-22, Berkeley.

1936 "Kinship and History." American Anthropologist 38:338-341.

Cultural and Natural Areas of Native North America. University of California Publications in American Archaeology and Ethnology, Vol. 38, Berkeley.

Needham, Rodney

"An Analytical Note on the Structure of Siriono Society." Southwestern Journal of Anthropology 17:239-255. Passin, Herbert

1943 "The Place of Kinship in Tarahumara Social Organization." Acta Americana 1:361-383, 471-495.

Badcliffe-Brown, A. R.

1935 "Kinship Terminologies in California." <u>American</u> <u>Anthropologist</u> 37:530-535.

Shimkin, D. B.

1941 "The Uto-Aztecan System of Kinship Terminology." American Anthropologist 43:223-245.

Spicer, Edward

1954 Potam: Yaqui Village in Sonora. American Anthropological Association Memoir 77, Menasha.

Steward, Julian H.

1955 Theory of Culture Change. University of Illinois Press, Urbana.

Thompson, Laura

1949 "The Relations of Men, Animals and Plants in an Island Community." American Anthropologist 51:253-267.

Wedel, Waldo R.

1953 "Some Aspects of Human Ecology in the Central Plains." American Anthropologist 55:499-514.

TABLE 1
PARENT-CHILD GROUP

	Sex Sp ea ker	Father	Mother	Chi 1d	Son	Daughter
	MF		îta	iLeno [?] oak ^a (m-ktam f-kwam)		
SERI	M	i		i ² yazi (m-ktam f-kwam)	i sák	[?] ek
	F	im		iket (m-ktam f-kwam)		
	MF	onó	iyé	ranára (m-towi f-tewéke)	inó	mará
TARAHUMARA	M	onó				
	F	mari				
	MF		áiye			
CÁHITA	M	ácai		ausec	úsi	má la
-	F	apci		a sóa		
	MF		waruuci	niwe (genera- tional)		
HUICHOL	M	kemáaci				
	F	aéeci				
	MF	tahta (genera- tional)	náana			
CORA	M	naú		pe eri (genera- tional)		
	F	taá		yauh (genera- tional)		

TABLE 1--continued SIBLING-COUSIN GROUP

CONX OF	HONDRACH				1	T	1	1	1	1	7
	Ker	Sib	01Bro	YoBro	01Sis	YoSis	Cousin	01Ma Cos	YoMa - Cos	O1Fem- Cos b	YoFem- Cos ^b
S M E R	F	[?] oyák	eXé [?] a.				omo°oyak (distant Sib)	eXé ª			
RIM	M		inyák	izkz	ipák	ikóme		inyák	izkz	ipák	ikóme
F	F		imák	ikaz	izák	itkz		imák	ikáz	i zák	itkz
TA - MI	IF		ba c h í	boni	kochi	wayé		bachí	boni	koch i	wayé
HU- M MA	M					wayé					
RA F	F					bini		·			
						•					
CA MF H M T F	F			_	ákoro	gwáiyi				ákoro	gwáiyi
H I M	Ŋ		sai [°] i (R)	saiila (R)			i	sái [?] i	sáii1a		
T A F	7		ávaci	gwáiyi			·	ávaci	gwaiyi		
H U MF I C M	F	'iwaa (gener- ational)	maaci	muuta	kuurii	miita	[?] iwáa	maaci	muuta	kuurii	miita
	1										
O L	•		·								
C MF	F ('iwara'a (genera- tional)	há?a	huú (Y oS i b)	ku [^] u	huú	iwaara a	há?a	huú	ká: [?] a	huú
R A	1										
F	·T										

TABLE 1
AVUNCULAR-

										
	Sex of	ParBro	ParSis	Fa01Bro	FaYoBro	Fa01Sis	FaYoSis	MoO1Bro	MoYoBro	
s	MF		i [?] yak (FaSis)	imá²ax	itz			iXák	izmi	, 5 V
S E R	M									
I	F									
-			laian(D)			r	T	r	T	
TA-	MF		nisa(R) (MoSis)			sorú(R)	apó(R)			
RA- HU- MA-	M			kamúchuri	richí			kurichi (R)	raté(R)	
RA	F									
_					•		_	7		
C Á H I T A	MF			hávi	kúmuli	haka	ci °i la	hávi	kúmuli	
H	М									
A A	F									
TT			T		T		,	T		
H U T	MF	tátáaci	tei							
H U I C H O L	M									
0 <u>L</u>	F									
			·	••		•				
С	MF		ti							
O R A	M	naú(R)								
•	F	taá(R)								

MoO1Sis	MoYoSis	SibChi	BroChi	01BroChi	YoBroChi	SisChi	01SisChi	YoSisCh:
itmá [?] ax	inták			ikitaz				
					ikmé [?] ex	éak		
			izók				ipxáz	iktimá?
·	iché	l .	1	T	<u> </u>	l	rate(R)	kurichi
	TCHE			richi(R)	kumuchur i		nisa(R)	(R) iché(R)
iché(R)				apó(R)	(R) soró(R)		III Sa (N)	TCHe(K)
				- Po (1.1)	5010(11)			
e ⁹ e sa	cî [?] i la	a sa wára						
		maa-curi				(-		
		niwe-cie						
		pe [?] eri (genera- tional)						
		yauh (genera- tiona1)						
		•		-				

TABLE 1
AFFINAL

Ho XaA	a.	Spouse	SpBro	SpSis	Sp01Bro	SpYoBro	Sp01Sis	SpYoSis	BroWi
	MF								ikemotaL (SibSp)
	M	ikám	ikémot				ikwaXéte	imakéte	
	F	ikóm	i 1kwam (&HuBroWi)	ikék	ikmé ⁹ ex	ikétz			ikwák
1	Æ				che era- muchimar (O1Sib- in-law)	wa- imuchimari (YoSib- in-law)			
	M	up í							
	F	unára							
1	W.D.		<u> </u>	I				T	1
-	VF.		mocari	malanesa					
İ	M	húbi	(Bro-	(Sis- in-law)					ma lanesa
	F	kúna	asasumari (Bro-	haka lae (Sis- in-law)					haka la e
Ŋ	Œ								
	M	kúná	kema (Bro- in-law)	aée(R)					aée(R)
	F	kúy á	aée(R)	'iwaruu (Sis- in-law)					?iwarúu
P	MF		ya [?] ube [?] e (Bro- in-law)	hui?ita (Sis- in-law)					
	M	⁰úh							
	F	kuún							

01BroWi	YoBroWi	SisHu	01SisHu	YoSi sHu	SpFa	SpMo	SoWi	Da.Hu
		ikemótaL					ikakám	ikamáz
ikatazáta	ikwaXéte	iktamkwéi			ekékt- ktam	ekékt- kwam		
			ikaitz	itkwaXén	iképez	ikémez		
		•		•				
					siá	wási	mo [?] ori	moné
·	,				·	•	_	
					aséwa			moné
		mocari				á ?su	habolá iye	
		asasumari				a séka	haka lá iyi	
				4				
							mu?ee(R)	múune(I
		kémá			múune(R)	warukan		
		aée(R)			mu°ee(R)	mu [?] ee(R)		
					<u> </u>	\$		
					mu?un(R) (Par- in-law)	mu [?] un(R)	mu [?] un(R) (Chi- in-law)	

Notes to the Table

Abbreviations used in the table are: Bro = brother('s), Chi = child, Cos = cousin, Da = daughter('s), F = female speaker, Fa = father('s), Fem = female, Hu = husband, M = male speaker, Ma = male, MF = male and/or female speaker, Mo = mother('s), Ol = older, Par = parent('s), Sib = sibling, Sis = sister('s), So = son('s), Sp = spouse('s), Yo = younger, Wi = wife. In combinations they are read as follows: MoOlBro = mother's older brother.

The major sources consulted in compilation of the table are: for the <u>Seri</u>, Griffen (1959), and Kroeber (1931); for the <u>Tarahumara</u>, Passin (1943), Bennett and Zingg (1935), and Kennedy (1961); for the <u>Cahita</u>, Beals (1943); for <u>Cora</u> and <u>Huichol</u>, Beals (MS), and Hinton (Grimes and Hinton, 1961).

The orthography employed in the table is for the most part that used by the primary source for each society involved. There is not complete agreement on terms among the sources for any one group since the data were gathered at different times and often from different dialect areas, but there is a consensus fully adequate for the purposes of this paper. Where it was evident by comparison of sources that a change in terminology was taking place, the terms which appear to be older and the least influenced by Spanish were selected.

The second and third ascending and descending generation terms were omitted from the table in its final form due to considerations of space. Both of these categories possess characteristics similar to those illustrated in the table as it appears here. They are particularly notable for reciprocal terminology. Also of interest is that among the Seri, older and younger sibling terms are employed between great grand parents and their great grand children. For example, children call their great grand father by the term for "younger brother" (izkz, male speaking; ikaz, female speaking), and a great grand son is in turn called "older brother" (inyak, male speaking; imak, female speaking).

aUsed only when speaker or person spoken to is near death or deceased.

bThe distinction between older and younger cousin is based not upon the relative age of the cousins involved but upon the relative age of the connecting relative. For example, father's older brother's son is ego's older male cousin, while father's younger brother's son is ego's younger male cousin.