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Mohave and Washo Role Behavior

BY STANLEY A. FREED¹ AND RUTH S. FREED²

Certain cross-cultural comparisons can be made with little difficulty. On the basis of the data available in the existing literature, one can easily compare societies with regard to the presence or absence of plow agriculture. There will be few cases in which the facts are in doubt. The situation is different when relatively intangible variables are to be compared cross-culturally. How does one compare societies regarding, for example, the harshness of toilet-training practices? One can assign several individuals to read each selected ethnography, have each rate the societies according to harshness, and consider only those societies about which the raters are in substantial agreement. However, this procedure compensates only for the different biases of the raters. It does not compensate for the fact that, in the absence of a standardized field technique for the collection and interpretation of data, the interests, personalities, and biases of the field workers are involved to an unknown extent.³

The development of standardized techniques (or objective techniques, as they are often called) for collecting and analyzing data is therefore important for cross-cultural comparisons involving intangibles. In the realm of social structure, standardized techniques would seem to have

¹ Associate Curator of North American Ethnology, Department of Anthropology, the American Museum of Natural History.

² Assistant Professor of Anthropology, New York University.

³ For a discussion of the considerations involved in the use of raters, see Whiting and Child (1953, pp. 48-62).

particular applicability in the study of role behavior. Although problems may arise in the specifying of elements of social structure such as rules of residence or descent, these can be solved satisfactorily for most societies by existing methods. Certain aspects of role behavior are also fairly easy to deal with cross-culturally: the presence or absence of joking relationships, for example. But comparisons that involve qualitative characteristics of roles such as dominance, hostility, affection, and cooperation are not easy to make within a culture, let alone between cultures. The adequate handling of such qualities requires standardized methods.

Using the role profile test, a technique for investigating role behavior that yields data that can be treated statistically, we have compared the role behavior of similar kinsmen of the Washo and Mohave Indians, for example, the roles of Mohave father and Washo father. We were primarily interested in determining the value of the role profile test for cross-cultural comparisons. For a technique to be useful cross-culturally, it must be meaningful to people of different societies in the sense that respondents can understand what is required of them and perform within the framework of the technique. Second, the method must yield results that appear to be valid. Validity is determined by comparison with independently derived information or with results that can be anticipated on theoretical grounds.

The use of the role profile test among the Mohave and Washo was encouraging enough to indicate the value of further experimentation. Role behavior as revealed by the role profile test agreed in broad outlines with our observations, to the extent that comparison was possible, and also with common-sense expectations about roles such as mother and father. Furthermore, comparisons between corresponding roles in Washo and Mohave society showed considerable similarity, a result that can be expected on theoretical grounds because of the general similarity between the two societies in elements of social structure such as rules of residence and descent, types of marriage, and kinds of kin groups. However, one problem arose which considerably reduced the effectiveness of the role profile test among the Mohave. This problem grew from the way that the average Mohave reacted to the test. The Washo, whom we studied first, experienced little difficulty in completing the role profile test, and we expected similar behavior from the Mohave. Although the Mohave were as thoughtful and cooperative as the Washo, few supplied complete test protocols. Thus the requirement that respondents perform within the framework of the technique was not fully met. The possible causes and the implications of the different re-

actions of Washo and Mohave respondents to the role profile test have been discussed in an earlier paper (Freed, 1965).

Further experimentation with the role profile test is necessary to resolve two points. First, the research reported here shows quite similar role behavior in two societies that have generally similar social structures. Therefore, it should also hold that societies with dissimilar social

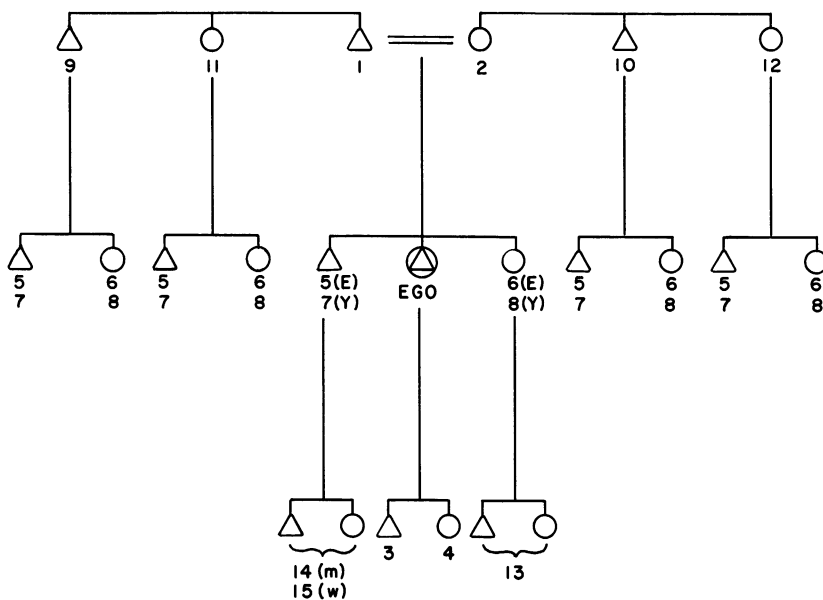


FIG. 1. Washo consanguineal kinship system (abbreviated). The terms corresponding to the numbers are listed in table 1. The use of elder and younger cousin terms depends upon whether ego's parent is older or younger than the parent of ego's cousin. Adapted from Freed (1960, p. 357).

Symbols: E, elder; m, man speaking; w, woman speaking; Y, younger.

structures show dissimilarity in role behavior. Second, the reactions of Mohave respondents suggest that the role profile test may be of limited usefulness in some societies. The value of the role profile test for cross-cultural comparisons depends to a large extent upon whether the Washo or the Mohave reaction is typical.

THE WASHO AND MOHAVE

Extensive treatments of aboriginal and modern Washo culture can be found in d'Azevedo (1963), Downs (1961 and 1966), Freed (1960), Lowie (1939), Price (1962), and Omer C. Stewart (1941 and 1944); con-

TABLE 1
WASHO CONSANGUINEAL KINSHIP TERMS^a

Term Number	Washo Term	Denotata
1	digóy [?]	Father
2	dilá [?]	Mother
3	diṇá'm	Son
4	diṇámu [?]	Daughter
5	di [?] á'tu	Elder brother, father's elder brother's son, father's elder sister's son, mother's elder brother's son, mother's elder sister's son, half elder brother, male children of older half siblings of parents
6	di [?] í'sa	Elder sister, father's elder brother's daughter, father's elder sister's daughter, mother's elder brother's daughter, mother's elder sister's daughter, half elder sister, female children of older half siblings of parents
7	dibéyu	Younger brother, father's younger brother's son, father's younger sister's son, mother's younger brother's son, mother's younger sister's son, half younger brother, male children of younger half siblings of parents
8	diwít'suk	Younger sister, father's younger brother's daughter, father's younger sister's daughter, mother's younger brother's daughter, mother's younger sister's daughter, half younger sister, female children of younger half siblings of parents
9	di [?] éwši [?]	Father's brother
10	didá [?] a	Mother's brother
11	diyá [?]	Father's sister
12	dišáša [?]	Mother's sister
13	dimá'gu	Sister's child
14	dimá [?] ša	Brother's child (man speaking)
15	dišémuk	Brother's child (woman speaking)

^a Adapted from Freed (1960, p. 356). Washo words are written in a phonemic system developed for Washo by William H. Jacobsen, Jr., who did his work under the Survey of California Indian Languages, Department of Linguistics, University of California, Berkeley.

sequently only a brief summary is required here. The Washo, who speak a language of the Hokan language family, live in eastern California and western Nevada. In pre-European times¹ they were nomadic

¹ The end of the aboriginal period in Washo territory can be placed in the decade of the 1850's. The first permanent white settlement in the region was in 1851. The discovery of the Comstock Lode in 1858 brought large numbers of whites into Washo territory, thus causing considerable disruption in traditional Washo culture.

hunters and gatherers. The modern Washo are wage earners and, typically, live in small communities consisting of a few families situated near several of the towns of western Nevada and eastern California: principally Gardnerville, Carson City, and Reno in Nevada, and Woodfords and Coleville in California. Aboriginal Washo culture was a blend of Californian and Great Basin cultural elements. In the 1950's, when our field work was carried out, Washo culture was chiefly western American, with a moderate number of aboriginal survivals, principally in language, ceremonial, social structure, and in the material culture and techniques involved in gathering and cooking pine nuts and acorns. Also the attitudes and beliefs of many Washo with respect to family life, marriage, sexual behavior, and some aspects of religion appeared to be characteristically Washo.

Figure 1 presents an abbreviated diagram of Washo kinship terminology that shows only the relationships relevant to this research. The terms are listed in table 1. This terminology is used by the majority of modern Washo. All the evidence indicates that it was also used in pre-European days. Washo kinship terminology is generational in ego's generation and bifurcate collateral in the first ascending and first descending generations.

The Washo pattern of residence was apparently bilocal before contact with Euro-Americans, but there was no rule of residence that had to be strictly followed. The situation was much the same in the 1950's. After marriage a new couple selected its residence according to circumstances. Most couples lived near either the husband's or the wife's parents or other close relatives in what was essentially a bilocal pattern. However, a couple could choose to live at a distance from the parents of either spouse.

In pre-European times personal property was destroyed at death, but pine-nut-picking rights and rights in eagle aeries were inherited bilaterally, all children sharing equally. The office of village chief, according to Barrett (1917, p. 9), passed from father to eldest son. Personal property, such as clothing, is still destroyed at death, but houses, money from insurance policies, and other valuables are inherited. Inheritance in modern times is basically bilateral in accord with normal American usage. Property can also be willed. Tribal officials are elected.

The testimony of our informants indicates that, before contact with Euro-Americans, the Washo family was nuclear, often with a few distant relatives included. Because sororal and non-sororal polygyny occurred, there were some polygynous families. Both the sororate and the levirate were practiced but were not required. Data collected by Price

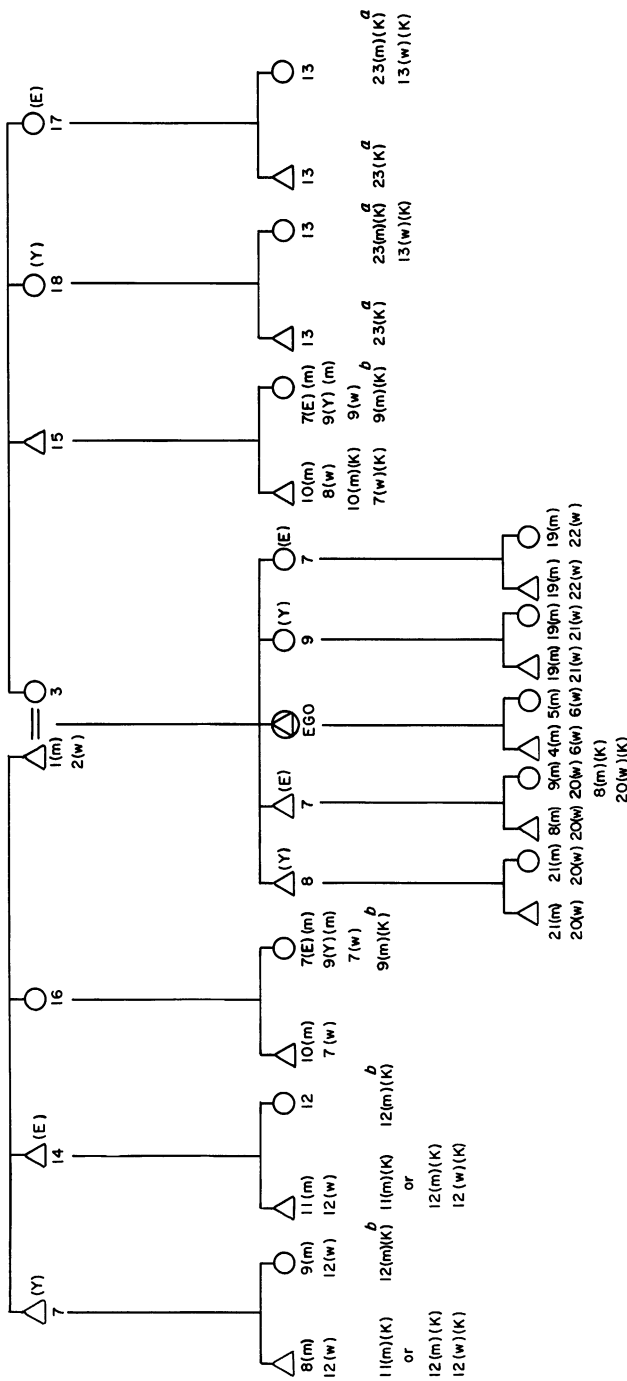


FIG. 2. Mohave consanguineal kinship system (abbreviated). The terms corresponding to the numbers are listed in table 2. When elder and younger cousin terms are used, the choice depends upon whether ego's parent is older or younger than the parent of ego's cousin. Certain terms published by A. L. Kroeber (1917) differ from those that we collected. We give Kroeber's terms, denoted by K, as well as our own for kin types where differences occur.

Symbols: E, elder; m, man speaking; w, woman speaking; Y, younger.

^aThis term, not given in table 2, is ahko'o-k.

^bKroeber listed no term for a woman speaker.

TABLE 2
MOHAVE CONSANGUINEAL KINSHIP TERMS^a

Term Number	Mohave Term	Denotata
1	naku-t-k	Father (m) ^b
2	naʔay-k	Father (w) ^c
3	ntay-k	Mother
4	humay-č	Son (m)
5	vuči	Daughter (m)
6	iθʔaw	Child (w)
7 ^d	inčien-k	Elder brother, elder sister, father's younger brother, father's sister's child (w), father's elder sister's daughter (m), mother's elder brother's daughter (m)
8 ^d	isuič-k	Younger brother, elder brother's son (m), father's younger brother's son (m), mother's brother's son (w)
9 ^d	inya-k	Younger sister, elder brother's daughter (m), father's younger brother's daughter (m), father's younger sister's daughter (m), mother's younger brother's daughter (m), mother's brother's daughter (w)
10	čakava-k	Father's sister's son (m), mother's brother's son (m)
11	əohumi-k	Father's elder brother's son (m)
12	aʔava-k	Father's brother's child (w), father's elder brother's daughter (m)
13	časumav-k	Mother's sister's child
14	navi-k	Father's elder brother
15	nakwi-k	Mother's brother
16	napi-k	Father's sister
17	naθi-k	Mother's elder sister
18	namoy-k	Mother's younger sister
19	evany-k	Sister's child (m)
20	emarepi-k	Brother's child (w)
21	ivet-k	Younger brother's child (m), younger sister's child (w)
22	inoy-k	Elder sister's child (w)

^a The denotata given here are those from the genealogies collected by the authors. This list of terms differs somewhat from that of A. L. Kroeber. The differences are indicated in figure 2. The transcription of Mohave follows that used by Frisch and Schutz (1967, p. 278).

^b m, Man speaking.

^c w, Woman speaking.

^d A. L. Kroeber (1917, p. 341) listed two terms for half siblings, man speaking: one for a paternal half sibling and the other for a maternal half sibling. He listed no terms for half siblings for female speakers, implying that terms 7, 8, and 9 were used for half siblings, woman speaking. Both our male and female respondents used terms 7, 8, and 9, as well as the two special half sibling terms, for half siblings. Our respondents used the full sibling terms more often than the half sibling terms: of 15 female respondents, 11 used the full sibling terms and four used the half sibling terms; of 13 male respondents, seven used the full sibling terms and 6, the half sibling terms. Half siblings of parents are called by the normal uncle and aunt terms, and their descendants receive the usual cousin terms as given in this table and in figure 2.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
F	F	F	F	F	M	ZC	ZC	ZC	ZC	EB	EZ	EZ	EZ	EB	BC	EZ
M	M	M	M	M	F	F	EB	EB	BC	ZC	EB	ZC	EB	EZ	EZ	BC
EZ	EB	ZC	ZC	EZ	ZC	EB	EB	BC	EB	EZ	F	MB	MZ	F	MB	MB
ZC	MB	EB	EB	EB	EZ	EZ	BC	EZ	EZ	BC	MB	EB	ZC	M	MZ	MZ
EB	EZ	EZ	EZ	MZ	EB	M	F	F	F	F	M	MZ	BC	ZC	EB	EB
MZ	ZC	MB	MB	MB	MZ	MZ	M	M	M	M	MZ	BC	F	MZ	ZC	ZC
MB	MZ	MZ	MZ	ZC	MB	MB	MB	MZ	MZ	MB	ZC	F	M	BC	F	F
BC	BC	BC	BC	BC	BC	BC	MZ	MB	MB	MZ	BC	M	MB	MB	M	M

Fig. 3. Role profile test for a Washo male respondent.

Symbols: BC, brother's child; EB, elder brother; EZ, elder sister; F, father; M, mother; MB, mother's brother; MZ, mother's sister; MYZ, mother's younger sister; MZC, mother's sister's child; ZC, sister's child.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
F	F	F	M	F	M	F	F	ZC	M	F	MYZ	FEBS	M	F	—	—
M	FEB	F	F	M	F	M	M	M	F	M	MB	MZC	MYZ	M	—	—
FEBS	FEBS	MYZ	MYZ	EZ	EZ	EZ	EZ	MZC	EZ	EZ	FEB	EZ	EZ	ZC	—	—
MZC	ZC	EZ	EZ	MYZ	ZC	ZC	ZC	FEBS	ZC	ZC	—	—	FEBS	EZ	—	—
EZ	MB	ZC	FEBS	FEBS	FEBS	MZC	MYZ	—	MZC	MZC	—	—	ZC	MYZ	—	—
ZC	—	MB	MB	MB	MZC	FEBS	MZC	—	FEBS	FEBS	—	—	—	MB	—	—
MB	—	MZC	MZC	ZC	MYZ	MB	MB	—	—	—	—	—	—	FEBS	—	—
—	—	FEBS	FEBS	MZC	MB	—	FEBS	—	—	—	—	—	—	—	—	—
—	—	FEB	FEB	FEB	FEB	—	FEBS	—	—	—	—	—	—	—	—	—

Fig. 4. Role profile test for a Mohave male respondent.

Symbols: EZ, elder sister; F, father; FEB, father's elder brother; FEBS, father's elder brother's son; M, mother; MB, mother's brother; MYZ, mother's younger sister; MZC, mother's sister's child; ZC, sister's child.

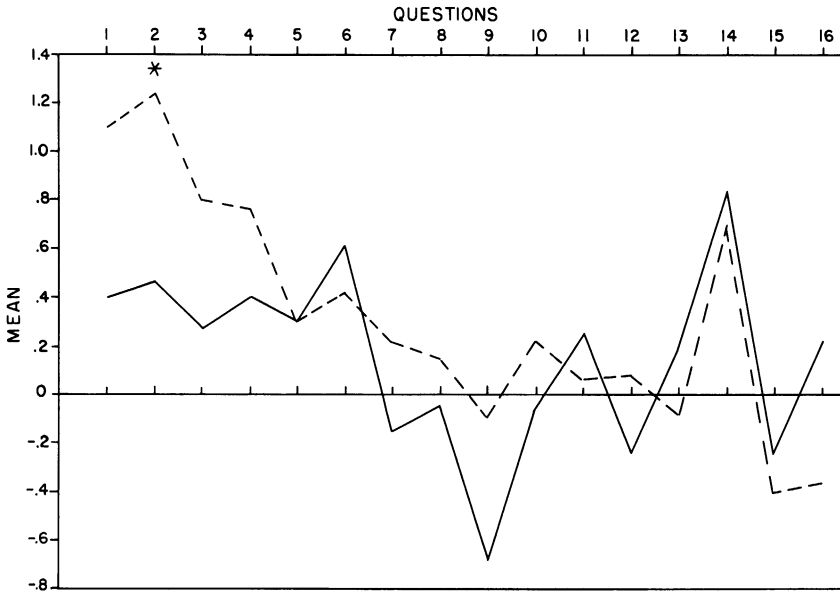


FIG. 5. Role profiles of father, male respondents. Solid line, Mohave; broken line, Washo. An asterisk denotes a significant distinction between the means for a particular question.

(1962, pp. 6–10) show that families that included two, or sometimes more, married couples, consanguineally related, were as common as nuclear families and that polygynous families were rare. He also reported two apparent instances of fraternal polyandry. He therefore viewed the extended family as the basic unit of aboriginal society. The most reasonable interpretation of these data is that nuclear and extended families occurred in roughly equal numbers. Because of bilocal residence, the Washo extended family was bilocal. The modern Washo family is usually nuclear, often with a few more distant relatives attached. Polygyny, polyandry, the sororate, and the levirate have all been abandoned. Serial monogamy is frequent, our data indicating that about 30 per cent of the married Washo are involved in second and subsequent marriages.

As in the past, the modern Washo have no sibs, lineages, or clans. Formerly they had a weak system of moieties whose only apparent function was to oppose one another in games held during the Pine-Nut Dance. Moieties did not regulate the choice of marriage partners. A person belonged to his father's moiety which often was his mother's

moiety as well. Furthermore, people could leave one moiety and join the other. Moieties no longer exist.

It is difficult to determine whether or not the Washo formerly had or now have kindreds. The incest taboo is extended to all known consanguineal relatives so that no distinction is made between close and more distant kin. Ceremonies are generally attended by all interested Washo, whether or not they are relatives. Relatives outside the family seem to have no special ceremonial or economic functions. Only for the girl's puberty dance does there seem to be a significant mobilization of relatives outside the family. Price (1962, p. 47) reported: "... the gathering and preparation of foods had to be done quickly by the girl's family and relatives. Today this, more than any other event, unites kinsmen into a hard working, well organized, social group." However, non-relatives also assist in the preparation of food for the girl's puberty dance (Pataky, 1966, and personal communication). We believe that kindreds have never existed among the Washo or, at the most, that they have been very weakly formalized.

The Mohave live in the valley of the lower Colorado River. The largest groups of Mohave presently live on the Colorado River Indian Reservation south of Parker, Arizona, where they are the most numerous of the several tribal groups living on the reservation, and at Needles, California. The Mohave language, like Washo, is classified in the Hokan language family. In pre-European days¹ the Mohave lived by farming, gathering, and fishing. The modern Mohave are wage earners and capable farmers. Their per-acre crop values are about equal to those of whites who operate farms on the reservation; usually Indian farmers, faced with many handicaps, do not equal the production of whites (Brophy and Aberle, 1966, pp. 79-80). Not all Mohave landowners farm their land; some prefer to lease it to others. Additional income enters the economy of the Colorado River Indians through the entrepreneurial activities of the Tribal Council. It operates a recreational area on the Colorado River with a restaurant, trailer park, and marina; and it has leased a large area along the river bank (7800 acres for 65 years at more than \$8,000,000) to a large land-development firm to develop as a resort area. The Tribal Council has also successfully negotiated for the building of a yarn factory on Indian land to process

¹ The end of the aboriginal period for the Mohave can be placed in the 1850's. The decade began with attempts of the United States Army to stage expeditions against them and ended with the only battle between the Mohave and the Army. The Mohave were defeated, and they capitulated in 1859 (Clifton B. Kroeber, 1965, pp. 174-175).

part of the reservation cotton crop. In the decade from 1954 to 1964, and especially since 1963, the pace of economic change on the Colorado River Indian Reservation has been almost revolutionary.

In the fall and winter of 1963-1964, when we worked with the Mohave on the Colorado River Indian Reservation, almost all aboriginal culture had been lost except the language, the funeral rite, a strong sense of tribal pride and identification, and various mannerisms and attitudes, particularly those involving relatives and family life. A few shamans were still active, and the Bird Dance was carefully maintained as a proud reminder of tribal tradition. Although we made no particular effort to determine the facility of the modern Mohave in speaking the Mohave language, our impression was that not many people under 30 years of age had a really sound grasp of Mohave. This is supported by our kinship data wherein respondents under 35 years of age often substituted English terms for Mohave (see below). Furthermore, we did not have to use interpreters for any of our respondents, a situation that contrasts sharply with the experiences of Devereux in the 1930's. The principal reasons for the loss of aboriginal culture, which has been quite marked in the last 15 years, have been the deaths of older people who were its principal carriers, the boarding-school training of the middle-aged Mohave, domestic service by many Mohave women in Los Angeles and elsewhere, military service by the young men, the desire of the tribal leaders for economic development and modernization in the reservation, and the generally strong financial position of the Mohave which permits many families to participate in the material aspects of American middle-class culture. The increasing influx of Euro-Americans into Mohave territory to take advantage of the climate and resort facilities may also be a factor.

Figure 2 presents an abbreviated diagram of Mohave kinship terminology that contains only the relationships relevant to this paper. The terms are listed in table 2. Like the Washo, the Mohave kinship terminology is bifurcate collateral in the first ascending and first descending generations. In ego's generation, it does not fit into any of the usual classifications. Most Mohave know the proper terms for the relatives given in figure 2, although some make mistakes, that is, their use of Mohave terms differs from that of the majority of respondents. These errors do not appear to foreshadow any systematic change in the Mohave kinship system, for the same kind of error does not appear more than twice. English terms were substituted for some Mohave terms by about 30 per cent of the individuals interviewed (19 out of 64). Of the 40 respondents more than 35 years old, only two substituted an oc-

casional English term; of the 24 respondents 35 years of age or younger, 17 substituted some English terms. These figures reflect the considerably better retention of the Mohave language by the middle-aged and elderly.

The terminology given by our 64 respondents is identical with that collected by A. L. Kroeber in the first decade of this century except for some of the cousin terms, elder brother's daughter (man speaking), and usages with respect to half siblings. The differences are noted in figure 2 and table 2. A possible insight into the meaning of the differences between Kroeber's informants and ours can be gained by an examination of the proto central Yuman kinship terminology recently reconstructed by Frisch and Schutz, (1967). None of the brother and sister terms in proto central Yuman is used for cousins. Both Kroeber's informants and ours use brother and sister terms for cross-cousins except for a male ego's term for male cross-cousins. Kroeber's informants did not use brother and sister terms for parallel cousins, but our male respondents called father's younger brother's son by the same term as younger brother and father's younger brother's daughter by the same term as younger sister. Since reconstructed proto central Yuman is earlier than Kroeber's terminology, which in turn is earlier than ours, there is evidence that the Mohave are gradually shifting to a generational terminology in ego's generation. The completion of this development is unlikely because English is replacing the Mohave language.

There are good accounts of the traditional Mohave system of sibs.¹ Twenty-two in number, Mohave sibs were patrilineal, exogamous, totemic, and non-localized. They had no functions other than regulating the choice of marriage partners. Sib names were used as women's names, although women could have other names as well. At the present time, young women no longer use sib designations as names, and the Mohave sibs are rapidly being forgotten. Young people often do not know them and marry without considerations of sib.

Only scant and often conflicting information is available on other aspects of aboriginal Mohave social structure. Curtis (1908, p. 52) reported initial matrilocality until a newly married couple could build a home of its own. McNichols (1944, pp. 56-57) wrote that a newly married husband and wife resided with either the husband's or wife's family until they could build their own home. Fathauer (1954, p. 109) and Kenneth M. Stewart (1965, p. 271) reported patrilocal residence. Drucker

¹ A. L. Kroeber (1902, 1925) and Spier (1953) have provided the basic data on Mohave sibs, and Kelly (1942) has made a thorough comparative study of the sibs of the Yuman tribes.

(1941, p. 138) indicated that marriage was bilocal, and he said that there was no fixed rule. One of our elderly informants reported compulsory matrilocality until the wife's parents died (his own marriage had been matrilocal), and another said that matrilocality was usual but that a couple could live anywhere. Three other elderly informants reported different arrangements with regard to their own first marriages: one marriage was virilocal; another, neolocal; and the third couple lived with a father's sister. This variety suggests that in pre-European times marriage was both bilocal and neolocal with initial matrilocality but that there was no mandatory rule of residence. The situation is much the same today. There is no compulsory rule of residence. Newly married couples establish their residences according to family circumstances. Some may live with or near the parents of the husband or wife, but others may choose to live at some distance from their parents.

Descent and inheritance among the aboriginal Mohave were patrilineal. Sib affiliation descended in the male line. Curtis (1908, p. 52) and A. L. Kroeber (1925, p. 745) mentioned the fact that chieftainship passed from a man to his nearest male relative; however, Fathauer (1954, p. 109) regarded the office of chief as a post-contact development. The inheritance of land was of little importance, owing to the unpredictable nature of the Colorado River floods which could prevent the utilization of particular areas. Furthermore, land was often alienated at the death of its owner. Devereux (1939, p. 517) noted, "The farm land of a dead person is either left fallow for several years or else is taken over by persons who are *not* relatives of the deceased." When land was not alienated, it was inherited in the male line (Castetter and Bell, 1951, p. 143). Other personal property, including houses, was formerly burned at death. The modern Mohave still burn the clothing and some of the other personal property of a dead person at his cremation, but really valuable possessions are not destroyed. Houses are no longer burned, although they may be temporarily abandoned if possible, and an automobile is traded for another. Land is not alienated. Today land and other valuables are inherited bilaterally or may be willed to heirs in accord with American practices. Tribal officials are elected.

A. L. Kroeber's (1925, p. 735) description of the houses of prominent men suggests that some kind of extended family was frequent. Fathauer (1954, p. 109) reported the patrilocal extended family. Because residence was frequently bilocal, the Mohave extended family would have been bilocal rather than patrilocal. Because neolocal residence occurred, there would also have been nuclear families. The usual cycle of the formation of extended families as children married and their division into nuclear

families as the elder generation died probably resulted in roughly equal proportions of the two types. Polygyny was infrequent (Drucker, 1941, p. 138); therefore the polygynous family was rare. The levirate was optional. The modern Mohave usually live in nuclear families, often with various distant relatives included. They are monogamous, but serial monogamy is frequent. Data collected by the Bureau of Ethnic Research on the Colorado River Indian Reservation indicate that 25 per cent of the married men have been married more than once.

A noteworthy feature of the genealogical interviews with the Mohave was that 19 respondents mentioned one or more individuals to whom they apply kinship terms, but with whom they cannot trace a genealogical connection. This phenomenon of "unconnected" bilateral relatives did not occur in any of the 70 genealogical interviews of the Washo. (Kinship terms for unconnected relatives, according to one Mohave informant, ". . . are like a grab bag. You reach in and grab one, but you don't know whether you're getting the right one or not.") Both in interviews and in casual conversation, the Mohave frequently distinguish between close and distant relatives. Although some respondents used the close-distant distinction to imply only intensity of emotional tie, occasionally varying the adjective applied to the same relative according to the situation, others based the distinction on the ability to trace exact relationships: close relatives can be traced exactly, but one does not know the exact connections between oneself and a distant relative. To the extent that the close-distant distinction rests on a clear-cut criterion, the ability to trace exact relationship, it separates a group of bilateral relatives from all relatives. This group of close relatives might be considered a kindred if there were some noteworthy functional difference between close and distant kin. However, informant testimony regarding such subjects as the incest taboo, hospitality, and ceremonial duties failed to reveal any group of relatives, apart from the family, that is functionally separable from all relatives.

The incest taboo applies to all consanguineous relatives. Devereux (1939, p. 525) reported a case of incest involving third cousins. Although relatives occasionally marry, such marriages are considered improper. If relatives marry, their blood tie is believed to be broken. In olden days a ceremony symbolizing a funeral was held when relatives married because, according to our informants, "Marrying a relative breaks the relationship and this is like having a close relative die."¹

¹ A full description of the ceremony attending an incestuous marriage and an analysis of its meaning can be found in Devereux (1961, pp. 357-371).

Hospitality among kinsmen is not affected by distance of relationship. Considerations of hospitality depend on the individuals involved, and a distant relative can be more hospitable than a close one. Informants expressed no hesitation in approaching distant kinsmen for hospitality or assistance.

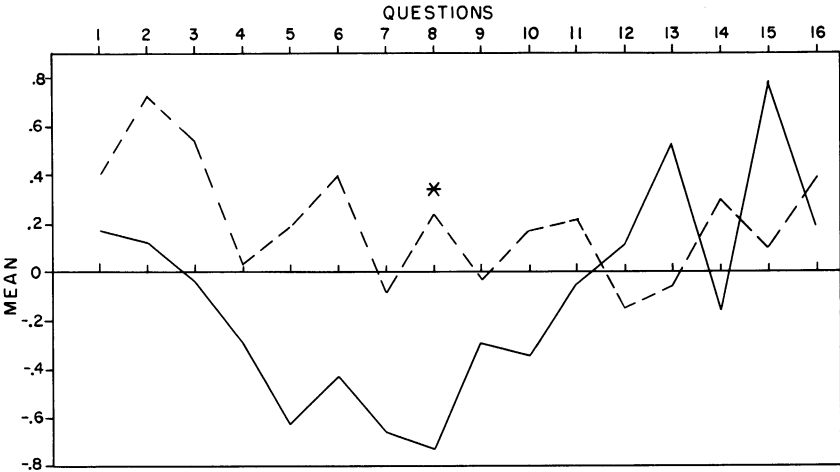


FIG. 6. Role profiles of father's brother, male respondents. Solid line, MoHAVE; broken line, Washo. An asterisk denotes a significant distinction between the means for a particular question.

The functions of kindreds might possibly be discernible in the principal Mohave ceremony, the funeral rite, but this seems in many ways to be a tribal affair. At present, the same two men organize and officiate at all funerals, and the people who dance and sing are generally the same, possibly because only a few older people know any of the traditional songs and dances. Curtis (1908, p. 53) reported: "Relatives and friends follow the remains, all seeming equally grief-stricken. In the language of the Indian, 'Why not? We are all brothers. When my brother is happy, I am happy with him. When he weeps, I weep with him,' So, gathered around the blazing pile, the tribe wails. . . ." When we attended several Mohave funerals, we noticed, in contrast to Curtis, that relatives of the nuclear family were much more visibly affected than others, sat closer to the coffin during the all-night wailing and singing preceding the cremation, and stood closer to the pyre during the cremation. However, all Mohave feel it their duty to attend funerals, and the principal active participants, other than the mourners, are only

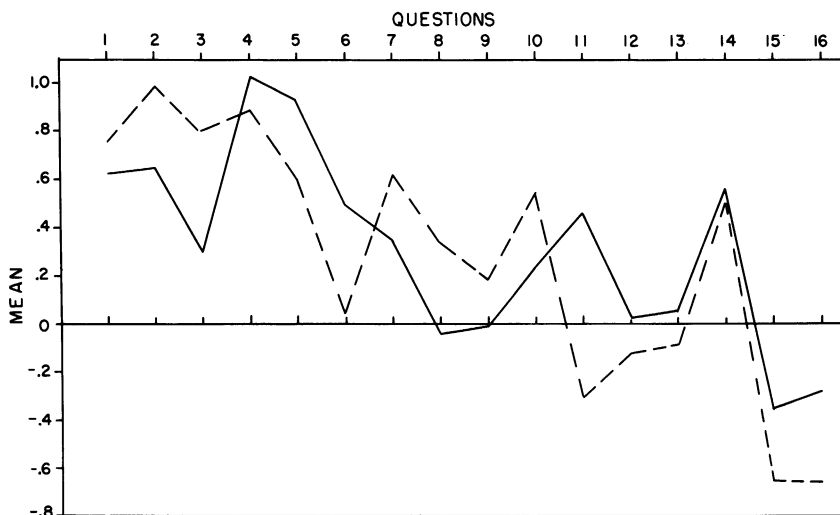


FIG. 7. Role profiles of mother, male respondents. Solid line, Mohave; broken line, Washo.

incidentally relatives. Their performance depends on their knowledge and skills.

There is then no group of bilateral relatives, other than the family, that is functionally distinguishable from all relatives. Whether or not hospitality and aid, potentially a feature of any relationship, are expressed depends on the will of the people involved. The Mohave can be contrasted with a group like the Tenino (Murdock, 1964, p. 131), among whom, at the wedding ceremony, the kindreds of the bride and groom

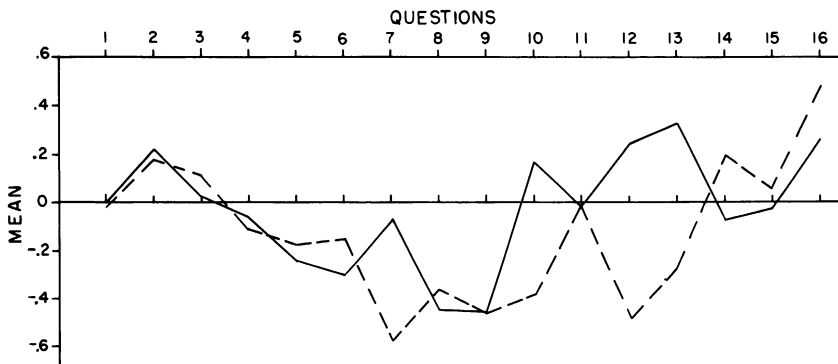


FIG. 8. Role profiles of mother's brother, male respondents. Solid line, Mohave; broken line, Washo.

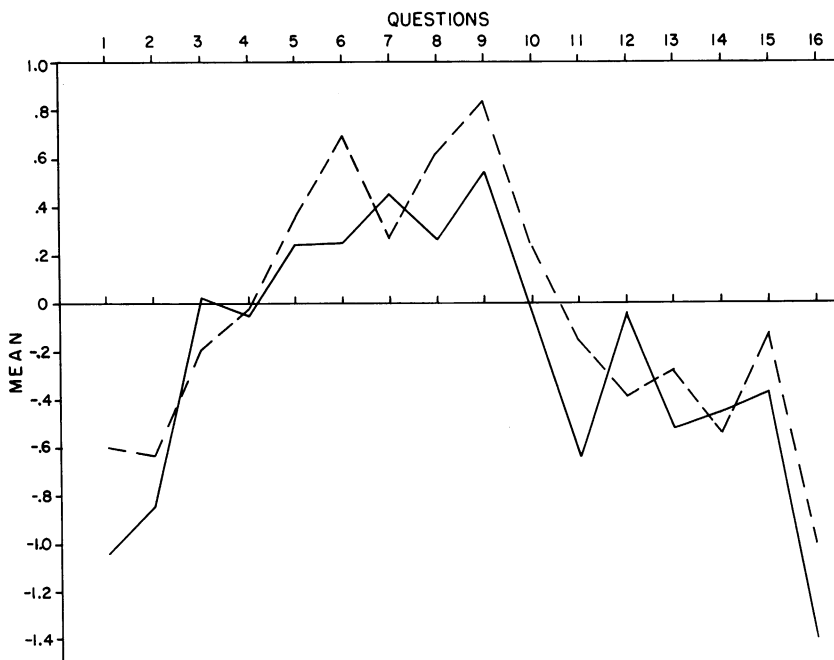


FIG. 9. Role profiles of son, male respondents. Solid line, Mohave; broken line, Washo.

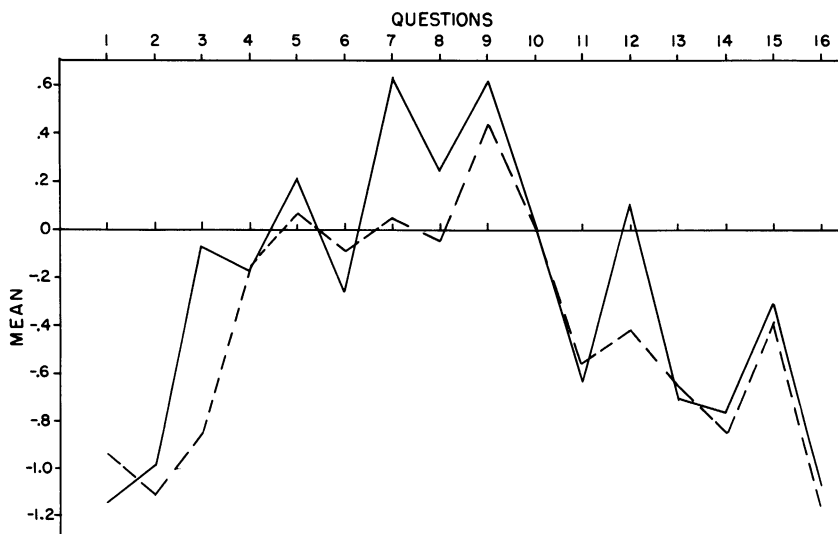


FIG. 10. Role profiles of daughter, male respondents. Solid line, Mohave; broken line, Washo.

exchange gifts, or the Nunamiut Eskimo (Pospisil and Laughlin, 1963, p. 188), among whom blood vengeance is associated with the kindred. Even if one regards the kindred as coextensive with all bilateral relatives, there is no occasion when these relatives gather to act on behalf of ego, their common link. The funeral rite is a possible exception, but this is as much a tribal affair as an occasion involving relatives. If we regard cognatic societies as forming a continuum from those in which kindreds are clearly marked to those in which kindreds do not exist, then the Mohave, as well as the Washo, fall toward the latter pole.¹

Despite differences in aboriginal social structure between the Mohave and the Washo, they have become quite similar in recent times. Marriage is monogamous; serial monogamy is frequent; the family is basically nuclear; inheritance is bilateral; residence is according to circumstances; the kindred is either absent or functionally very weak; and unilineal descent groups are absent among the Washo and disappearing among the Mohave. We would expect such similarities to be correlated with similarities in role behavior.

THE ROLE PROFILE TEST

The role profile test has two components: a method of eliciting data from respondents and a method of analysis. As a preliminary to the eliciting of the role data, we obtained a respondent's genealogy. For this research we were interested only in the relatives diagrammed in figures 1 and 2. English terms were sometimes used by Mohave respondents; these were included in the subsequent analysis if they could be equated to Mohave terms. Next we gave the respondent a set of small cards upon which Washo or Mohave kinship terms were written quasi-phonetically. He was given cards only for relatives noted in his genealogy. A Mohave who used an English term was given a card with the English term.

We then asked 16 questions about various kinds of interpersonal behavior. The questions (see below) are organized around two sets of polar qualities: dominance-submission and affection-hostility. The purest ex-

¹ In an earlier paper, Freed (1965) credited the Mohave with having kindreds. This judgment was based, principally, on the close-distant distinction that Mohave informants frequently made. However, as there seem to be no noteworthy functional differences between close and distant relatives, we now believe that the Mohave are best thought of as lacking kindreds. Decisions about whether or not kindreds are present in a society can be difficult. For definitions of the kindred and discussions of some of the problems encountered in identifying them, see, among other recent papers, Murdock (1960) and Appell (1967).

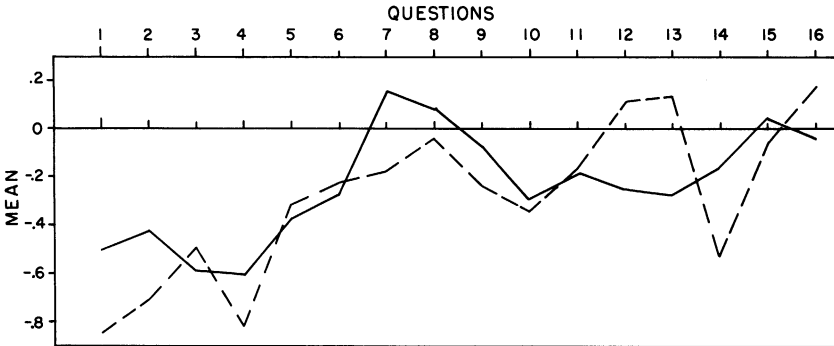


FIG. 11. Role profiles of sister's child, male respondents. Solid line, Mohave; broken line, Washo.

pression of dominance is in question 1; of affection, in question 5; of submission, in question 9; and of hostility, in question 13. Questions between 1 and 5 are thought to combine the qualities of dominance and affection in various degrees; questions between 5 and 9 combine affection and submission; those between 9 and 13, submission and hostility; and those between 13 and 16, hostility and dominance.

For each question, we asked a respondent to arrange the cards in a column, the relative ranking highest in the behavior in question to be placed at the top and the other relatives to be placed in descending order, with the one ranking lowest at the bottom. We noted the responses, shuffled the cards, and asked the next question. The result is a test

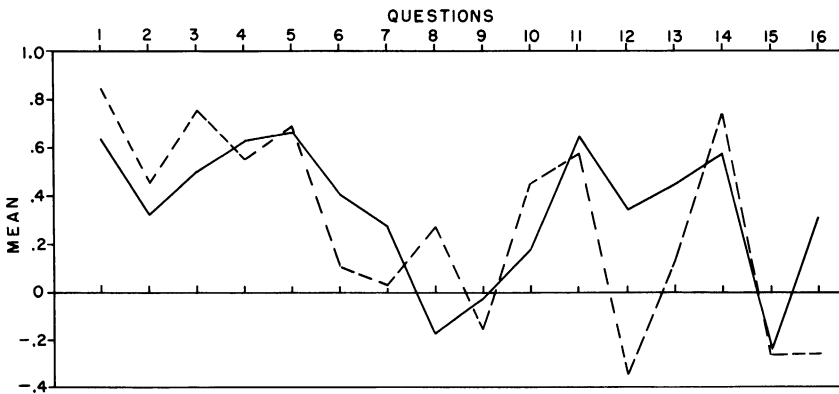


FIG. 12. Role profiles of father, female respondents. Solid line, Mohave; broken line, Washo.

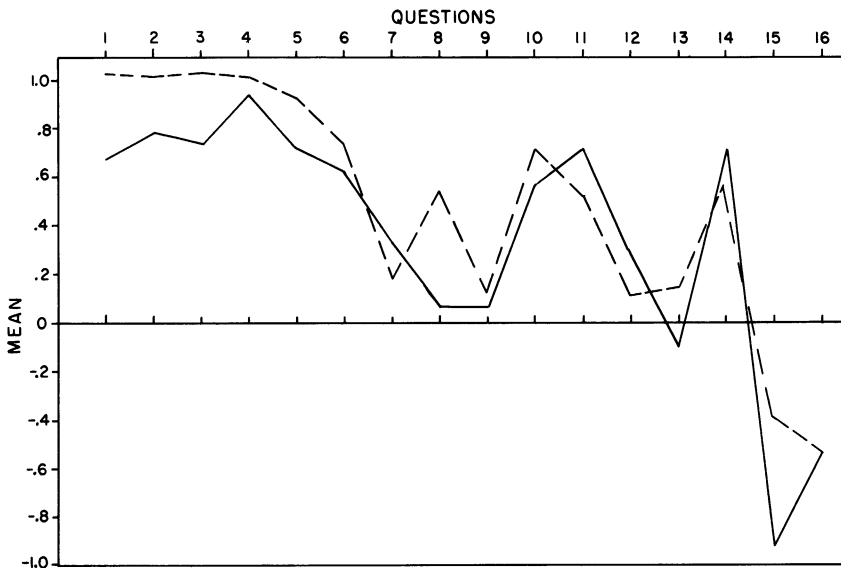


FIG. 13. Role profiles of mother, female respondents. Solid line, Mohave; broken line, Washo.

protocol ranking the respondent's relatives in each of 16 kinds of interpersonal behavior (fig. 3). Most respondents handled the test with relative ease, but for some it was necessary to explain and illustrate various questions. All but four Washo were interviewed in English.

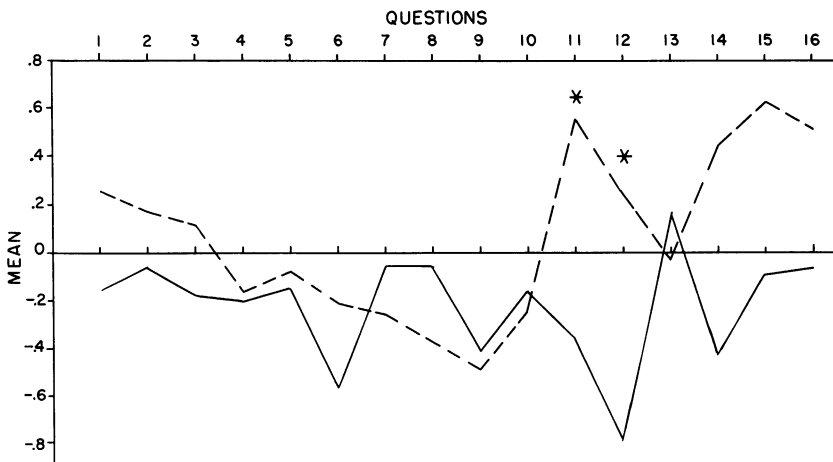


FIG. 14. Role profiles of mother's brother, female respondents. Solid line, Mohave; broken line, Washo. An asterisk denotes a significant distinction between the means for a particular question.

QUESTIONNAIRE OF THE ROLE PROFILE TEST
(M marks words or questions used just with the Mohave.)

1. Which relative most often tries to tell you what to do? Which most often gives you orders (or bosses you)? (For the Mohave, only the first question was used.)
2. Which relative most often teaches (M shows) you how to do something? Which one gives you advice or tells you his opinions? (For the Mohave, only the first question was used.)
3. Which relative is most likely to help you if you need it?
4. Which relative is most likely to feel bad and sympathize with you when something goes wrong? (M) If you have bad luck or if you feel bad, which relative feels bad with you?
5. Which relative is specially fond of you? (M) Which relative likes you the most?
6. Which relative most often cooperates (works together) with you? (M) Which relative do you work with most often? (Both sentences asked for the Mohave. "Cooperates" was not used.)
7. Which relative depends on you most and most often asks your help? (For the Mohave, the question was sometimes shortened to, "Which relative depends on you most?") (M) Which relative most often comes to you for help?
8. Which relative respects you the most? Which one asks your opinions? (M) Which relative asks you what to do or how to do something?
9. Which relative obeys (minds) you if you tell him or her to do something? ("Minds" was best for the Mohave.)
10. Which relative is most eager for your approval? (M) Which relative likes you to say that he (or she) looks well or that he (or she) is doing something well? (M) Which relative likes you to praise him (or her)?
11. Which relative would be the most likely to say or think you did something wrong (or bad)? (We did not use "bad" with the Mohave. It disturbed them.)
12. Which relative nags you the most? (For the Mohave, this question required considerable explanation. "Bother" seemed to be the best synonym for "nags" with the Mohave.)
13. Which relative disapproves of you and criticizes you most often? (For the Mohave, "disapproves" was omitted.)
14. Which relative punishes you or gets angry (or mad) if you don't mind or if you do something wrong (or bad)? (For the Mohave, the phrase "bawls you out" was often used. "Bad" and "angry" were not used.)
15. Which relative is most likely to refuse to help you even if you need it pretty badly?
16. Which relative would be most likely not to want to have anything at all to do with you?

Analysis was designed to reduce the data to a form in which patterns of role behavior could easily be perceived and their similarities and differences could readily be compared. We were particularly interested in comparing similar Washo and Mohave roles, such as Washo mother's brother and Mohave mother's brother. The role profile test produces

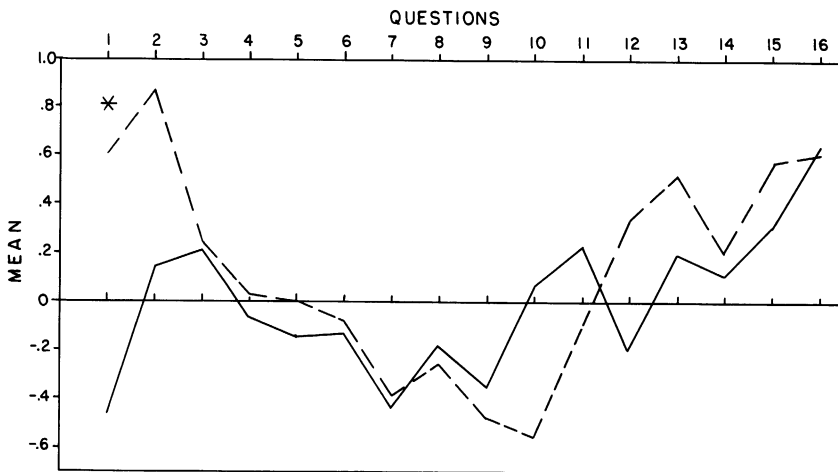


FIG. 15. Role profiles of mother's sister, female respondents. Solid line, Mo-have; broken line, Washo. An asterisk denotes a significant distinction between the means for a particular question.

ranked data. Ordinarily, non-parametric methods are the proper ones for analyzing such data, because they involve no assumptions about the distribution in the population of the variable under study. But these methods assume that each individual ranks the same set of objects; and, for the role profile test, respondents ranked different kinds and numbers of relatives. Another possible method of analysis involves the construction of preference matrixes for all relatives for each question. This idea was discarded because of the smallness of the numbers in the cells. For

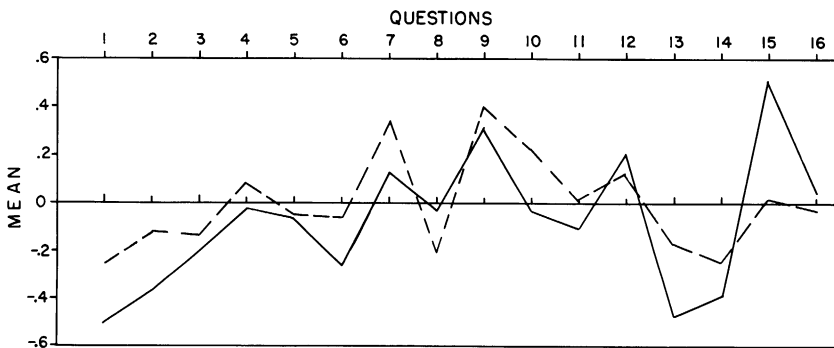


FIG. 16. Role profiles of younger brother, female respondents. Solid line, Mo-have; broken line, Washo.

example, consider the cell for mother's brother and daughter, question 1, Mohave male respondents. Of the 21 respondents who supplied rankings for question 1, only 10 included a card for mother's brother, and six, a card for daughter. Thus, at best, the cell for mother's brother and daughter in the preference matrix for question 1 (male respondents) could contain six opinions. Actually, it would include only four opinions because two of the respondents who had a daughter did not also have a mother's brother. Meaningful conclusions cannot be drawn from such

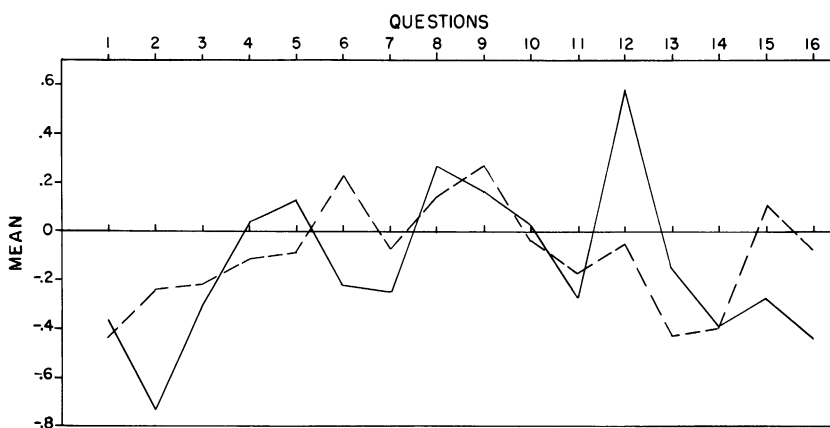


FIG. 17. Role profiles of younger sister, female respondents. Solid line, Mohave; broken line, Washo.

small numbers. These considerations led us to continue to use the method of quantifying the data by assigning normal scores to the ranks as described and discussed in Freed (1960, pp. 367-368).¹ Note that this method assumes that the characteristic that determines a relative's rank can be measured numerically and is distributed normally in the population.

After normal scores (taken from Fisher and Yates, 1963, p. 94) were assigned to the ranks, the mean, standard error of the mean, and 95 per cent confidence limits² were calculated for each role for all 16 questions. Male and female protocols were analyzed separately, because we

¹ This method of analysis was suggested by Prof. Evelyn A. Fix, Department of Statistics, University of California, Berkeley.

² The 95 per cent confidence limits were estimated by the formula $\bar{x} \pm 2S_{\bar{x}}$. When x is distributed normally, the confidence coefficient corresponding to the interval $\bar{x} \pm 2S_{\bar{x}}$ is .954.

assumed that roles are enacted somewhat differently toward men and women. If all the tests had been analyzed as a single group, certain characteristics of role behavior might have been obscured whenever differences between men and women happened to cancel one another. When the means for a role for all 16 questions are plotted on graph paper and the points connected with lines, the result is a role profile (figs. 5–19). Only the points (means) are significant; the lines were added only for visibility, and their slopes have no meaning. The means of two

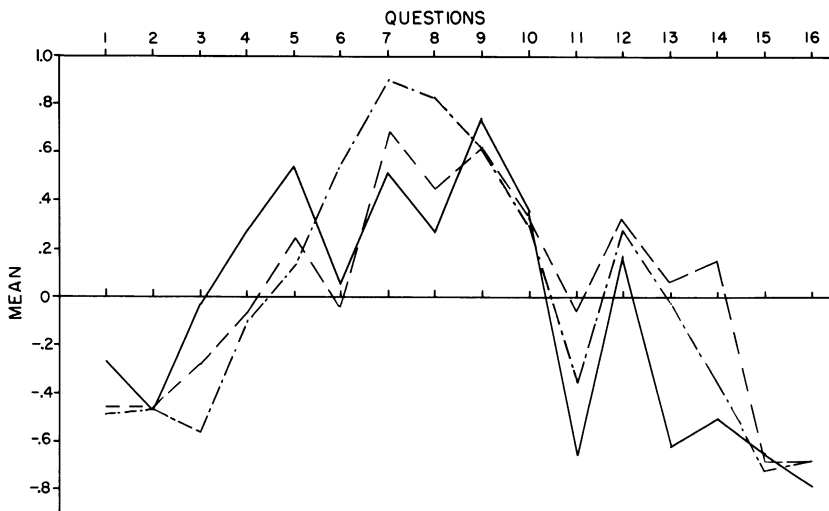


FIG. 18. Role profiles of child. Solid line, Mohave; broken line, son, Washo; dash-and-dot line, daughter, Washo. Female respondents.

relatives for any question are said to be significantly distinct when their 95 per cent confidence intervals fail to overlap. Roles are defined as differing significantly when there is a significant difference between their means for any question for either men or women.

ANALYSIS AND COMPARISON

In contrast to the typical Washo test protocol (fig. 3), the typical Mohave protocol is incomplete (fig. 4). Mohave respondents sometimes rejected questions, especially those dealing with hostility, and they usually did not rank all their relatives for the questions that they did answer. Sometimes only two or three relatives were ranked out of nine or 10. Rankings generally included more relatives for the questions on affection than for those on hostility. The effect of this circumstance is that

some relatives were ranked infrequently for some questions: for example, the number of Mohave male respondents who ranked father's sister is never greater than seven for any question and falls as low as two. In general, the larger the sample, the more valid the results of a statistical analysis. We therefore decided to discard relatives that were ranked by fewer than eight respondents for any question, if at all possible; that is, we drew role profiles only for relatives ranked by at least eight respondents for all questions. This decision did not prove to be feasible, and

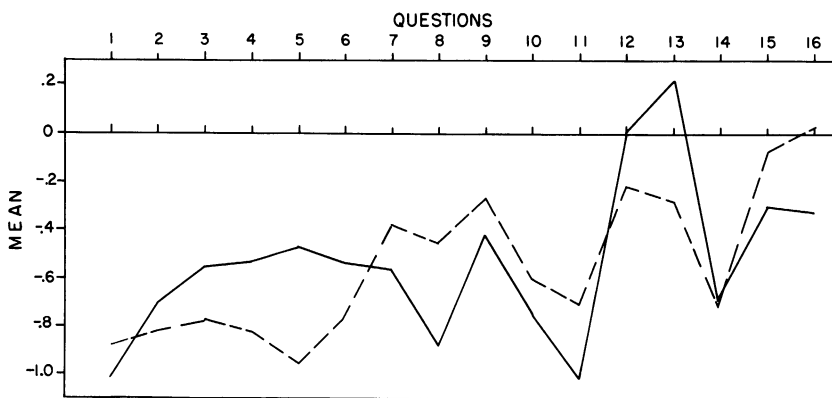


FIG. 19. Role profiles of brother's child, female respondents. Solid line, Mohave; broken line, Washo.

we had to settle for Mohave role profiles for relatives ranked by eight or more respondents for at least half of the questions.

The results of the analysis of the Mohave data that meet the above standard are given in tables 3 to 18 along with the Washo data from Freed (1960). Tables 19 to 22 are comparisons of the means of roles with regard to whether or not they differ significantly. Table 23 compares the means of corresponding Washo and Mohave roles with regard to significant differences. The comparable Washo and Mohave role profiles are given in figures 5 to 19.

Note that some of the Washo and Mohave roles that are compared are not exactly the same as defined by their denotata. For male respondents, father, mother, mother's brother, son, daughter, and sister's child have the same denotata in Washo and Mohave, but father's brother, Washo, is compared with father's elder brother, Mohave. For female respondents, father, mother, mother's brother, and brother's child have the same denotata. The denotata of younger brother and younger sister differ, but the primary kintypes denoted by the terms are the

TABLE 3
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 1 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits	
	Mohave	Washo	Mohave	Washo	Mohave	Washo	Lower Mohave	Upper Washo
Male respondents								
Father	15	19	.40	1.10	.26	.18	-.12	.74
Father's brother	8	14	.17	.40	.28	.16	-.39	.08
Mother	15	20	.62	.76	.18	.14	.26	.48
Mother's brother	10	12	.00	-.02	.24	.21	-.48	-.44
Son	5	9	-1.03	-.60	.15	.13	-1.33	-.86
Daughter	6	10	-1.17	-.93	.16	.14	-1.49	-1.21
Sister's child	6	11	-.50	-.84	.19	.19	-.88	-1.22
Female respondents								
Father	16	21	.63	.86	.17	.15	.29	.56
Mother	21	26	.67	1.02	.10	.10	.47	.82
Mother's brother	11	15	-.16	.25	.12	.26	-.40	-.27
Mother's sister	10	18	-.45	.60	.19	.15	-.83	.30
Younger brother	8	22	-.50	-.25	.29	.12	-1.08	-.49
Younger sister	8	21	-.36	-.44	.29	.17	-.94	-.78
Child	14	—	-.27	—	.24	—	-.75	—
Son	—	19	—	-.44	—	.20	—	-.84
Daughter	—	18	—	-.49	—	.14	—	-.77
Brother's child	5	24	-1.01	-.89	.10	.13	-1.21	-1.15

TABLE 4

NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 2 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits		Upper
	Mohave	Washo	Mohave	Washo	Mohave	Washo	Lower	Mohave	Washo
Male respondents									
Father	17	19	.46	1.23	.26	.08	-.06	1.07	.98 1.39
Father's brother	11	14	.12	.72	.26	.14	-.40	.44	.64 1.00
Mother	13	20	.65	.99	.22	.10	.21	.79	1.09 1.19
Mother's brother	11	12	.22	.18	.24	.19	-.26	-.20	.70 .56
Son	8	9	-.83	-.63	.17	.14	-1.17	-.91	-.49 -.35
Daughter	8	10	-.98	-1.11	.19	.13	-1.36	-1.37	-.60 -.85
Sister's child	7	11	-.42	-.71	.16	.12	-.74	-.95	-.10 -.47
Female respondents									
Father	19	21	.32	.46	.17	.17	-.02	.12	.66 .80
Mother	23	26	.79	1.01	.10	.15	.59	.71	.99 1.31
Mother's brother	14	15	-.06	.18	.22	.15	-.50	-.12	.38 .48
Mother's sister	11	18	.15	.87	.27	.14	-.39	.59	.69 1.15
Younger brother	5	22	-.37	-.11	.20	.13	-.77	-.37	.03 .15
Younger sister	7	21	-.72	-.23	.14	.17	-1.00	-.57	-.44 .11
Child	11	—	-.47	—	.19	—	-.85	—	-.09 —
Son	—	19	—	-.44	—	.15	—	-.74	— -.14
Daughter	—	18	—	-.45	—	.17	—	-.79	— -.11
Brother's child	4	24	-.70	-.82	.15	.11	-1.00	-1.04	-.40 -.60

TABLE 5
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 3 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents	Mean		Standard Error of the Mean	95 Per Cent Confidence Limits				
		Mohave	Washo		Lower	Upper			
		Mohave	Washo	Mohave	Washo	Mohave	Washo		
Male respondents									
Father	20	.28	.80	.25	.18	-.22	.44	.78	1.16
Father's brother	11	-.03	.55	.31	.18	-.65	.19	.59	.91
Mother	17	.30	.80	.25	.18	-.20	.44	.80	1.16
Mother's brother	13	.02	.12	.14	.11	-.26	-.10	.30	.34
Son	13	.02	-.20	.25	.28	-.48	-.76	.52	.36
Daughter	11	-.07	-.83	.29	.22	-.65	-1.27	.51	-.39
Sister's child	11	-.58	-.49	.20	.13	-.98	-.75	-.18	-.23
Female respondents									
Father	21	.50	.76	.17	.19	.16	.38	.84	1.14
Mother	26	.74	1.03	.13	.14	.48	.75	1.00	1.31
Mother's brother	20	-.18	.11	.17	.18	-.52	-.25	.16	.47
Mother's sister	15	.21	.23	.18	.19	-.15	-.15	.57	.61
Younger brother	13	-.20	-.13	.28	.17	-.76	-.47	.36	.21
Younger sister	16	-.30	-.21	.19	.18	-.68	-.57	.08	.15
Child	21	-.01	—	.20	—	-.41	—	.39	—
Son	19	—	-.29	—	.17	—	-.63	—	.05
Daughter	18	—	-.55	—	.18	—	-.91	—	-.19
Brother's child	13	-.55	-.77	.19	.11	-.93	-.99	-.17	-.55

TABLE 6
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 4 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Mohave	Washo	Mohave	Washo	Mohave	Washo	Lower		Upper	
							Mohave	Washo	Mohave	Washo
Male respondents										
Father	20	19	.40	.77	.22	.17	-.04	.43	.84	1.11
Father's brother	11	14	-.29	.04	.19	.21	-.67	-.38	.09	.46
Mother	17	20	1.02	.89	.18	.14	.66	.61	1.38	1.17
Mother's brother	13	12	-.06	-.15	.12	.16	-.30	-.47	.18	.17
Son	14	9	-.04	-.02	.23	.19	-.50	-.40	.42	.36
Daughter	12	10	-.18	-.15	.31	.34	-.80	-.83	.44	.53
Sister's child	13	11	-.60	-.82	.12	.11	-.84	-1.04	-.36	-.60
Female respondents										
Father	19	21	.62	.56	.22	.20	.18	.16	1.06	.96
Mother	22	26	.95	1.01	.13	.15	.69	.71	1.21	1.31
Mother's brother	18	15	-.20	-.16	.16	.22	-.52	-.60	.12	.28
Mother's sister	15	18	-.06	.03	.12	.18	-.30	-.33	.18	.39
Younger brother	14	22	-.02	.09	.23	.14	-.48	-.19	.44	.37
Younger sister	16	21	.04	-.11	.24	.21	-.44	-.53	.52	.31
Child	22	—	.29	—	.17	—	-.05	—	.63	—
Son	—	19	—	-.07	—	.17	—	-.41	—	.27
Daughter	—	18	—	-.10	—	.21	—	-.52	—	.32
Brother's child	14	24	-.53	-.81	.13	.15	-.79	-1.11	-.27	-.51

TABLE 7
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 5 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean		Standard Error of the Mean	95 Per Cent Confidence Limits	
						Lower	Upper
		Mohave	Washo	Mohave	Washo	Mohave	Washo
Male respondents							
Father	19	.30	.30	.22	.22	-.14	.74
Father's brother	10	-.62	.19	.20	.25	-1.02	-.22
Mother	16	.92	.60	.21	.20	.50	1.34
Mother's brother	14	-.24	-.17	.15	.15	-.54	.06
Son	16	.25	.36	.22	.26	-.19	.69
Daughter	14	.21	.08	.23	.42	-.25	.67
Sister's child	13	-.37	-.31	.20	.24	-.77	.03
Female respondents							
Father	21	.66	.69	.21	.16	.24	1.08
Mother	25	.71	.93	.17	.11	.37	1.05
Mother's brother	19	-.14	-.07	.20	.26	-.54	.26
Mother's sister	15	-.13	.00	.16	.17	-.45	.19
Younger brother	15	-.06	-.04	.18	.19	-.42	.30
Younger sister	17	.13	-.09	.23	.22	-.33	.59
Child	24	.56	—	.11	—	.34	.78
Son	—	—	.25	—	.18	—	.61
Daughter	17	—	.13	—	.18	—	.49
Brother's child	19	-.48	-.94	.14	.12	-.76	-.20

TABLE 8
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 6 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean		Standard Error of the Mean	95 Per Cent Confidence Limits				
	Mohave	Washo	Mohave	Washo		Lower Mohave	Upper Washo			
Male respondents										
Father	15	19	.61	.42	.29	.18	.03	.06	1.19	.78
Father's brother	8	14	-.42	.40	.29	.26	-1.00	-.12	.16	.92
Mother	14	20	.49	.05	.21	.24	.07	-.43	.91	.53
Mother's brother	10	12	-.30	-.14	.25	.21	-.80	-.56	.20	.28
Son	11	9	.27	.70	.30	.30	-.33	.10	.87	1.30
Daughter	10	10	-.28	-.09	.23	.29	-.74	-.67	.18	.49
Sister's child	9	11	-.26	-.22	.24	.30	-.74	-.82	.22	.38
Female respondents										
Father	17	20	.40	.10	.21	.19	-.02	-.28	.82	.48
Mother	24	25	.62	.74	.14	.18	.34	.38	.90	1.10
Mother's brother	12	15	-.56	-.21	.14	.17	-.84	-.55	-.28	.13
Mother's sister	9	17	-.12	-.08	.18	.17	-.48	-.42	.24	.26
Younger brother	15	21	-.24	-.05	.20	.11	-.64	-.27	.16	.17
Younger sister	13	20	-.21	.23	.21	.23	-.63	-.23	.21	.69
Child	21	—	.07	—	.18	—	-.29	—	.43	—
Son	—	18	—	-.03	—	.24	—	-.51	—	.45
Daughter	—	17	—	.56	—	.16	—	.24	—	.88
Brother's child	11	23	-.53	-.77	.20	.17	-.93	-1.11	-.13	-.43

TABLE 9
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 7 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits		Upper Limits	
	Mohave	Washo	Mohave	Washo	Mohave	Washo	Mohave	Washo	Mohave	Washo
Male respondents										
Father	14	19	-.15	.23	.33	.21	-.81	-.19	.51	.65
Father's brother	8	14	-.66	-.08	.13	.20	-.92	-.48	-.40	.32
Mother	14	20	.35	.61	.22	.19	-.09	.23	.79	.99
Mother's brother	10	12	-.07	-.58	.21	.18	-.49	-.94	.35	-.22
Son	15	9	.45	.27	.24	.27	-.03	-.27	.93	.81
Daughter	13	10	.63	.06	.25	.35	.13	-.64	1.13	.76
Sister's child	8	11	.16	-.17	.17	.31	-.18	-.79	.50	.45
Female respondents										
Father	12	20	.27	.03	.27	.20	-.27	-.37	.81	.43
Mother	17	25	.33	.19	.21	.18	-.09	-.17	.75	.55
Mother's brother	10	15	-.05	-.25	.28	.21	-.61	-.67	.51	.17
Mother's sister	5	17	-.42	-.39	.26	.21	-.94	-.81	.10	.03
Younger brother	11	21	.14	.36	.22	.15	-.30	.06	.58	.66
Younger sister	12	20	-.24	-.07	.26	.19	-.76	-.45	.28	.31
Child	24	—	.51	—	.13	—	.25	—	.77	—
Son	—	18	—	.70	—	.18	—	.34	—	1.06
Daughter	—	17	—	.90	—	.22	—	.46	—	1.34
Brother's child	10	23	-.56	-.39	.24	.16	-1.04	-.71	-.08	-.07

TABLE 10
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 8 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean	Standard Error of the Mean	95 Per Cent Confidence Limits		Upper
	Mohave	Washo			Lower	Upper	
			Mohave	Washo	Mohave	Washo	Mohave
					Washo		Washo
Male respondents							
Father	11	19	-.03	.37	-.77	-.22	.71
Father's brother	7	14	-.72	.19	-1.10	-.33	-.34
Mother	12	20	-.04	.29	-.62	-.08	.54
Mother's brother	5	12	-.45	.14	-.73	-.79	-.17
Son	16	9	.28	.20	-.12	.08	.68
Daughter	14	10	.25	.18	-.11	-.75	.61
Sister's child	10	11	.09	.26	-.43	-.55	.61
Female respondents							
Father	11	20	-.17	.25	-.67	-.14	.33
Mother	14	25	.08	.25	-.42	.22	.58
Mother's brother	7	15	-.05	.32	-.69	-.68	.59
Mother's sister	6	17	-.18	.40	-.98	-.64	.62
Younger brother	9	21	-.02	.25	-.52	-.62	.48
Younger sister	13	20	.27	.23	-.19	-.29	.73
Child	17	—	.27	.18	-.09	—	.63
Son	—	18	—	—	—	.05	—
Daughter	—	17	—	—	—	.44	—
Brother's child	9	23	-.87	.19	-1.25	-.74	-.49
							1.20
							-.14

TABLE 11
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 9 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean	Standard Error of the Mean		95 Per Cent Confidence Limits		Upper
	Mohave	Washo		Mohave	Washo	Lower	Mohave	Washo
Male respondents								
Father	9	19	-.69	.26	.21	-1.21	-.51	-.17
Father's brother	8	14	-.30	.33	.18	-.96	-.39	.36
Mother	8	20	-.01	.32	.19	-.65	-.19	.63
Mother's brother	9	12	-.46	.29	.19	-1.04	-.84	.12
Son	15	9	.54	.19	.27	.16	.29	.92
Daughter	13	10	.61	.22	.28	.17	-.11	1.05
Sister's child	11	11	-.08	.26	.32	-.60	-.86	.44
Female respondents								
Father	7	20	-.02	.30	.21	-.62	-.58	.58
Mother	9	25	.07	.26	.18	-.45	-.22	.59
Mother's brother	4	15	-.40	.38	.21	-1.16	-.90	.36
Mother's sister	4	17	-.34	.17	.17	-.68	-.81	.00
Younger brother	11	21	.32	.22	.17	-.12	.06	.76
Younger sister	14	20	.17	.22	.19	-.27	-.10	.61
Child	20	—	.74	.16	—	.42	—	1.06
Son	—	18	—	—	.18	—	.27	—
Daughter	—	17	—	—	.18	—	.25	—
Brother's child	14	23	-.41	.20	.19	-.81	-.64	-.01

TABLE 12
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 10 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits		Upper	
	Mohave	Washo	Mohave	Washo	Mohave	Washo	Mohave	Washo	Mohave	Washo
Male respondents										
Father	15	19	-.06	.23	.28	.21	-.62	-.19	.50	.65
Father's brother	7	14	-.34	.17	.22	.19	-.78	-.21	.10	.55
Mother	14	20	.23	.54	.28	.20	-.33	.14	.79	.94
Mother's brother	9	12	.18	-.39	.24	.19	-.30	-.77	.66	-.01
Son	14	9	-.03	.25	.25	.36	-.53	-.47	.47	.97
Daughter	13	10	.02	.02	.25	.29	-.48	-.56	.52	.60
Sister's child	10	11	-.29	-.32	.18	.27	-.65	-.86	.07	.22
Female respondents										
Father	17	20	.18	.46	.24	.15	-.30	.16	.66	.76
Mother	21	25	.57	.72	.19	.14	.19	.44	.95	1.00
Mother's brother	17	15	-.16	-.24	.20	.19	-.56	-.62	.24	.14
Mother's sister	13	17	.07	-.54	.22	.19	-.37	-.92	.51	-.16
Younger brother	13	21	-.02	.22	.23	.17	-.48	-.12	.44	.56
Younger sister	15	20	.02	-.01	.17	.23	-.32	-.47	.36	.45
Child	21	—	.36	—	.22	—	-.08	—	.80	—
Son	—	18	—	.33	—	.21	—	-.09	—	.75
Daughter	—	17	—	.30	—	.21	—	-.12	—	.72
Brother's child	13	23	-.74	-.60	.14	.17	-1.02	-.94	-.46	-.26

TABLE 13
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 11 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean	Standard Error of the Mean	95 Per Cent Confidence Limits			
	Mohave	Washo			Mohave	Washo	Lower	Upper
							Mohave	Washo
Male respondents								
Father	13	19	.26	.27	.21	-.28	-.35	.80
Father's brother	9	14	-.06	.30	.25	-.66	-.29	.54
Mother	13	20	.46	.25	.17	-.04	-.64	.96
Mother's brother	8	12	-.01	.22	.18	-.45	-.36	.43
Son	9	9	-.64	.27	.32	-1.18	-.80	-.10
Daughter	9	10	-.61	.22	.35	-1.05	-1.25	-.17
Sister's child	7	11	-.19	.36	.30	-.91	-.77	.53
Female respondents								
Father	18	19	.65	.16	.23	.33	.12	.97
Mother	17	24	.71	.16	.21	.39	.11	1.03
Mother's brother	11	14	-.35	.23	.16	-.81	.24	.11
Mother's sister	11	16	.24	.21	.21	-.18	-.52	.66
Younger brother	4	20	-.10	.34	.17	-.78	-.32	.58
Younger sister	6	20	-.27	.25	.18	-.77	-.54	.23
Child	13	—	-.65	.17	—	-.99	—	-.31
Son	—	18	—	—	.21	—	-.48	—
Daughter	—	17	—	—	.20	—	-.76	—
Brother's child	6	22	-1.01	.19	.15	-1.39	-1.00	-.63
								-.40

TABLE 14
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 12 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean	Standard Error of the Mean	95 Per Cent Confidence Limits	
					Lower	Upper
	Mohave	Washo	Mohave	Washo	Mohave	Washo
Male respondents						
Father	8	19	-.24	.09	.28	.27
Father's brother	6	14	.12	-.14	.44	.24
Mother	8	20	.03	-.12	.30	.16
Mother's brother	8	12	.24	-.48	.26	.28
Son	6	9	-.03	-.38	.46	.24
Daughter	7	10	.12	-.41	.39	.32
Sister's child	5	11	-.24	.11	.35	.28
Female respondents						
Father	8	19	.35	-.35	.21	.17
Mother	7	24	.30	.11	.21	.19
Mother's brother	6	14	-.79	.26	.20	.26
Mother's sister	5	16	-.20	.35	.45	.22
Younger brother	6	20	.21	.12	.24	.14
Younger sister	6	20	.59	-.05	.36	.17
Child	9	—	.19	—	.31	—
Son	—	18	—	.31	—	.24
Daughter	—	17	—	.29	—	.20
Brother's child	5	22	.00	-.21	.41	.18
					-.82	-.57
					-.17	—
					-.11	—
					-.82	.15
					-.43	—
					-.13	.29
					-.27	.40
					-.09	.79
					-.26	.78
					-.12	.72
					-.07	.77
					-.69	-.01
					-.45	.63
					-.62	.34
					-.44	.20
					-.104	.08
					-.86	.10
					-.105	.23
					-.45	.67
					.46	
					.90	
					.89	
					.76	
					.63	
					1.00	
					.32	

TABLE 15
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 13 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents	Mean	Standard Error of the Mean	95 Per Cent Confidence Limits			
				Lower		Upper	
	Mohave	Washo	Mohave	Washo	Mohave	Washo	
Male respondents							
Father	8	.19	.33	-.47	-.46	.85	.30
Father's brother	5	.52	.37	-.22	-.47	1.26	.37
Mother	8	.07	.36	-.65	-.51	.79	.33
Mother's brother	6	.32	.18	-.04	-.89	.68	.35
Son	6	-.52	.34	-1.20	-.72	.16	.16
Daughter	6	-.70	.29	-1.28	-1.12	-.12	-.16
Sister's child	7	-.28	.20	-.68	-.38	.12	.66
Female respondents							
Father	9	.44	.33	-.22	-.21	1.10	.47
Mother	10	-.10	.26	-.62	-.23	.42	.53
Mother's brother	6	.17	.13	-.09	-.45	.43	.43
Mother's sister	9	.20	.27	-.34	.05	.74	1.01
Younger brother	4	-.47	.31	-1.09	-.52	.15	.20
Younger sister	7	-.15	.34	-.83	-.81	.53	-.01
Child	8	-.61	.30	-1.21	—	-.01	—
Son	—	—	—	—	-.38	—	.54
Daughter	—	—	—	—	-.37	—	.31
Brother's child	6	.22	.26	-.30	-.52	.74	.00

TABLE 16
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 14 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean	Standard Error of the Mean	95 Per Cent Confidence Limits			
	Mohave	Washo			Mohave	Lower	Upper	Washo
Male respondents								
Father	13	19	.84	.27	.30	.22	1.38	1.18
Father's brother	9	14	-.16	.29	-.74	-.08	.42	.68
Mother	14	20	.56	.18	.20	.11	.92	.91
Mother's brother	11	12	-.08	.18	-.44	-.28	.28	.68
Son	6	9	-.46	.48	-1.42	-.99	.50	-.07
Daughter	7	10	-.75	.27	-1.29	-1.21	-.21	-.45
Sister's child	6	11	-.15	.22	-.59	-.74	.29	-.30
Female respondents								
Father	20	19	.58	.15	.28	.19	.88	1.27
Mother	23	24	.71	.08	.55	.23	.87	.91
Mother's brother	10	14	-.43	.22	-.87	-.01	.01	.91
Mother's sister	8	16	.12	.31	-.50	-.17	.74	.59
Younger brother	5	20	-.39	.52	-1.43	-.52	.65	.04
Younger sister	8	20	-.39	.28	-.95	-.78	.17	-.02
Child	15	—	-.50	.22	-.94	—	-.06	—
Son	—	18	—	—	—	-.29	—	.59
Daughter	—	17	—	—	—	-.78	—	.10
Brother's child	5	22	-.68	.28	-1.24	-1.01	-.12	-.41

TABLE 17
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 15 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Mohave	Washo	Mohave	Washo	Mohave	Washo	Mohave	Lower	Washo	Upper
Male respondents										
Father	7	19	-.23	-.40	.43	.22	-1.09	-.84		.63
Father's brother	4	14	.78	.10	.29	.21	.20	-.32		1.36
Mother	6	20	-.35	-.65	.49	.17	-1.33	-.99		.63
Mother's brother	6	12	-.02	.06	.34	.21	-.70	-.35		.66
Son	4	9	-.37	-.12	.66	.22	-1.69	-.56		.95
Daughter	5	10	-.30	-.37	.46	.29	-1.22	-.95		.62
Sister's child	5	11	.05	-.05	.30	.28	-.55	-.61		.65
Female respondents										
Father	8	19	-.23	-.26	.30	.22	-.83	-.70		.37
Mother	5	24	-.92	-.38	.21	.18	-1.34	-.74		-.50
Mother's brother	8	14	-.09	.63	.36	.22	-.81	.19		.63
Mother's sister	8	16	.32	.59	.34	.13	-.36	.33		1.00
Younger brother	5	20	.51	.02	.42	.18	-.33	-.34		1.35
Younger sister	6	20	-.27	.12	.22	.15	-.71	-.18		.17
Child	4	—	-.65	—	.36	—	-1.37	—		.07
Son	—	18	—	-.68	—	.13	—	-.94		—
Daughter	—	17	—	-.72	—	.15	—	-1.02		—
Brother's child	6	22	-.30	-.06	.27	.17	-.84	-.40		.24

TABLE 18
NUMBER OF RESPONDENTS, MEANS, STANDARD ERRORS OF THE MEANS, AND 95 PER CENT CONFIDENCE LIMITS FOR QUESTION 16 OF THE
ROLE PROFILE TEST, MOHAVE AND WASHO

Relatives	Number of Respondents		Mean	Standard Error of the Mean	95 Per Cent Confidence Limits	
	Mohave	Washo			Lower	Upper
			Mohave	Washo	Mohave	Washo
Male respondents						
Father	8	19	.22	.36	-.50	-.74
Father's brother	5	14	.19	.15	-.11	-.03
Mother	6	20	-.28	.37	-1.02	-.99
Mother's brother	4	12	.26	.20	-.14	.13
Son	5	9	-1.40	.13	-1.66	-1.30
Daughter	5	10	-1.07	.13	-1.33	-1.46
Sister's child	4	11	-.02	.28	-.58	-.41
Female respondents						
Father	7	19	.31	.41	-.51	-.65
Mother	5	24	-.53	.39	-1.31	-.87
Mother's brother	4	14	-.06	.14	-.34	.12
Mother's sister	6	16	.64	.25	.14	.33
Younger brother	7	20	.06	.32	-.58	-.37
Younger sister	7	20	-.42	.33	-1.08	-.45
Child	3	—	-.79	.35	-1.49	—
Son	—	18	—	.17	—	-1.01
Daughter	—	17	—	.17	—	-1.01
Brother's child	4	22	-.31	.39	-1.09	-.37
						.47
						.43

TABLE 19
SIGNIFICANT DIFFERENCES BETWEEN MOHAVE ROLES, MALE RESPONDENTS^a

Relative	Father's Brother	Mother	Relative Mother's Brother	Son	Daughter	Sister's Child
Father	1	0	1	4	5	3
Father's brother		3	0	6	5	1
Mother			2	5	5	4
Mother's brother				5	6	1
Son					0	1
Daughter						1

^a The figure in a cell records the number of questions (out of a total of 16) of the role profile test in which the differences between the means for a pair of relatives are significant.

same; the differences occur in tertiary kintypes. Mohave women have a single term for child; this is compared with both the Washo son and daughter (fig. 18). We averaged the scores for Mohave mother's younger sister and mother's elder sister, creating a mother's sister's role, which we compared with Washo mother's sister.

Examination of tables 3 to 18 reveals considerable similarity in the Washo and Mohave means and hence in the role profiles as diagrammed in figures 5 to 19. Significant differences between the means of corresponding relatives in the two groups occasionally occur (table 23), but the general effect is one of similarity. This outcome is to be expected from the generally similar social structures of the modern Mohave and Washo. The differences that do occur may indicate only that elements of social structure do not rigidly determine role behavior and that certain aspects of role behavior may vary considerably within the limits set by a given type of social structure.

CONCLUSION

This research was designed to test the usefulness of the role profile test in making cross-cultural comparisons of role behavior. The results are encouraging enough to suggest that further experimentation might be fruitful. Washo and Mohave roles were shown to be very similar. Such similarity accords with what we would expect on theoretical grounds because of the generally similar social structures of the two societies. Future research concentrating on societies with very different social structures should reveal substantially different profiles for certain roles, especially those of secondary and tertiary relatives.

TABLE 20
SIGNIFICANT DIFFERENCES BETWEEN MOHAVE ROLES, FEMALE RESPONDENTS^a

Relative	Mother	Mother's Brother	Mother's Sister	Relative			
				Younger Brother	Younger Sister	Child	Brother's Child
Father	0	6	2	1	5	4	9
Mother		9	5	7	7	6	10
Mother's brother			0	1	1	2	1
Mother's sister				0	1	5	4
Younger brother					0	1	0
Younger sister						0	2
Child							7

^a The figure in a cell records the number of questions (out of a total of 16) of the role profile test in which the differences between the means for a pair of relatives are significant.

The role profile test has advantages as compared with other possible methods for the collection and analysis of data concerning roles. The basic judgments are made by members of the society under study rather than by an outside observer who acts as a rater. If a sufficient number of protocols are collected, one does not have to be very much concerned with the personality and bias of any particular respondent, for extreme opinions are swamped in the analysis by majority opinion. The data of the role profile test are treated statistically, permitting objective comparisons of roles both within and between societies. The test is not

TABLE 21
SIGNIFICANT DIFFERENCES BETWEEN WASHO ROLES, MALE RESPONDENTS ^a

Relative	Father's Brother	Mother	Relative Mother's Brother	Son	Daughter	Sister's Child
Father	2	0	6	5	5	5
Father's brother		2	0	3	5	5
Mother			8	5	5	6
Mother's brother				4	5	5
Son					0	2
Daughter						1

^a The figure in a cell records the number of questions (out of a total of 16) of the role profile test in which the differences between the means for a pair of relatives are significant.

meant as a substitute for the customary observation and interviewing. However, if additional use of the test demonstrates its validity, investigators can use it with some confidence for research on role behavior when little independent corroborating evidence is obtainable.

After the role profile test has been used in several societies, it will probably be necessary to review and revise the questionnaire. In view of the variability of culture and social structure among the societies of the world, no single set of 16 questions can be expected to probe role behavior equally well in all societies. A considerably longer list of questions from which investigators can select smaller sets for use in particular societies appears to be a necessary development. Of course when comparative studies are made, similar lists of questions must be used in all societies involved in a comparison.

Although analysis of the data of the role profile test may appear formidable to persons with little liking for mathematics, it is actually relatively simple and quick. Essentially two steps are involved. First, one copies normal scores from a table. Then means and standard errors of

TABLE 22
SIGNIFICANT DIFFERENCES BETWEEN WASHO ROLES, FEMALE RESPONDENTS^a

Relative	Mother	Mother's Brother	Mother's Sister	Relative			Son	Daughter	Brother's Child
				Younger Brother	Younger Sister	Younger Sister			
Father	0	2	4	4	5	5	4	6	9
Mother		10	8	7	6	6	5	7	10
Mother's brother			1	2	1	1	6	7	6
Mother's sister				5	5	5	7	9	9
Younger brother					0	0	1	3	9
Younger sister							2	2	3
Son								0	8
Daughter									7

^a The figure in a cell records the number of questions (out of a total of 16) of the role profile test in which the differences between the means for a pair of relatives are significant.

the means are calculated. The availability of inexpensive desk-top computers, complete with programs for many commonly used statistics, greatly facilitates the statistical analysis. All one must do is enter the raw data on a keyboard; the computer does the rest. The means and standard errors of the Mohave data were calculated on a desk-top computer (the Olivetti-Underwood Programma 101) in about 10 hours.

TABLE 23
SIGNIFICANT DIFFERENCES BETWEEN CORRESPONDING ROLES OF THE MOHAVE AND WASHO^a

Relative	Respondents	
	Male	Female
Father	1	0
Father's brother	1	—
Mother	0	0
Mother's brother	0	2
Mother's sister	—	1
Younger brother	—	0
Younger sister	—	0
Child ^b	—	0
Son	0	—
Daughter	0	—
Brother's child	—	0
Sister's child	0	—

^a The figure in a cell records the number of questions of the role profile test in which the differences between the means of a pair of corresponding roles are significant.

^b The role of child, Mohave, was compared to the roles of both son and daughter, Washo, for female respondents.

We are aware that an element of incomparability is inherent in all data. How does one compare the dominance of fathers in society A who beat their children to that of fathers in society B who discipline children by verbal shaming? The role profile test evades this problem. If respondents in societies A and B both judge their fathers as the most dominant of their relatives, analysis shows the roles to be similar in this respect whether or not an observer from society C might regard the fathers of society A as terrible tyrants and those of B as "Milquetoasts." The difficulty here is that there are no culture-free standards of judgment. Shaming can be more devastating to a victim than a physical beating. In the absence of culture-free standards, objective methods of data collection and analysis such as the role profile test are the soundest methods available for cross-cultural comparisons.

We know that the method we have used, involving as it does untest-

able assumptions about the distribution of variables in a population, is only a beginning in the cross-cultural study of role behavior. Once attention is turned toward the problem of measuring role behavior, the role profile test may be superseded by better methods. Our main purpose will have been achieved, however, if we alert anthropologists to the possibility of developing standardized methods for the cross-cultural study of roles.

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