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## Studying Role Behavior Cross-Culturally: Comparison of a Matrilineal and a Bilateral Society

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For a standardized technique to be useful in cross-cultural research, it must have several features. It must be meaningful to people of different societies, in the sense that respondents understand what is required of them and perform within the framework of the technique. In practice, this means principally that verbal instructions should be uncomplicated and easy to translate from one language to another and that any required manipulation of objects should be well within the capabilities of the average person. Also, the technique should be reliable in the sense that it produces similar results when used by different investigators in the same society (or by the same investigator on different occasions in the same society). Finally, the method must yield results that appear to be valid, that is, the test results should give a true picture of the variables under investigation. The validity of the test results can be appraised to some extent by comparison with independently derived information or with results that can be expected on theoretical grounds.

Intermittently during the last several years, we have been using and testing a standardized technique called the role profile test for measuring the role behavior of kinsmen (Freed, 1960, 1965; Freed and Freed, 1968).

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The role profile test furnishes data that can be treated statistically to give an objective measure of role behavior with regard to a number of relatively intangible variables such as dominance, hostility, affection, and cooperation. With the test data in hand, one can compare roles of kinsmen either within one society or between societies. Our first attempt at cross-cultural comparison involved the Washo and Mohave Indians of whom we studied the roles of similar kinsmen, for example, comparing the role of Mohave father with that of Washo father.

This effort revealed that, despite some difficulties which have been discussed elsewhere (Freed, 1965; Freed and Freed, 1968), the role profile test generally met the first condition of a useful cross-cultural instrument: it was meaningful to both Washo and Mohave informants, and they could perform within the framework of the test. The question of reliability, whether the technique would give similar results when used by different investigators, could be determined to some extent from the Washo and Mohave data, for the experiences of the two of us showed that the investigator made little difference to the results obtained. A husband and wife, however, may not provide a sufficient test of the effects of different investigators. As to validity, neither the Washo nor the Mohave data could be adequately evaluated, as there was no independent information on role behavior in these societies with which the data of the role profile test could be compared. The Washo and Mohave data do conform in broad outlines to our observations of behavior in these two societies and also to common sense expectations about such roles as mother and father, but this is not a satisfactory test of validity. Another indication of the validity of the test is that corresponding Mohave and Washo roles are similar, a finding that could be expected theoretically on the grounds that Washo and Mohave social organizations are similar.

The results of our work with the Mohave and Washo were encouraging enough to suggest that experimentation would be fruitful if it could be conducted so as to throw some light on the problems of the reliability and validity of the test. Furthermore, the different reactions to the test by informants from different societies deserved further investigation, for Washo and Mohave respondents had reacted somewhat differently; and the question remained as to whether another group would react like the Mohave, the Washo, or in a different manner (Freed, 1965).

The Navajo were the most suitable group in the United States for further testing of the role profile test for several reasons. The Navajo are relatively numerous and inhabit a reservation of about 23,500 square miles. We were therefore able to locate several field workers about the reservation who could interview without getting in one another's way or causing

too much disturbance. By comparing their work, we could get an indication of whether different field workers achieved generally similar results from the role profile test. Second, independent data on Navajo role behavior and the data of the role profile test could be compared to check the latter's validity. In addition, the fact that the Navajo trace descent matrilineally, and the Washo and Mohave bilaterally, provided conditions for another check of validity. Corresponding roles of the Washo and Mohave are similar to each other, which could be expected because the Mohave and Washo have similar social structures. Thus, it should also hold that societies with dissimilar social structures would show dissimilarity in role behavior. We did not expect this to be true for all roles, but thought that the role behavior of certain relatives, such as mother's brother and mother's sister, ought to be different in matrilineal and bilateral societies.

The present paper reports our research among the Navajo and compares Navajo roles with one another and with corresponding Washo roles. The Washo, rather than the Mohave, are used as an example of a bilateral group because the sample of Washo informants providing information for most roles was larger than that of the Mohave; in areas of role behavior involving hostility, the Washo sample sometimes was three to five times as large as the Mohave (Freed and Freed, 1968, pp. 38-41). In general, the larger the sample, the more reliable the statistical analysis of the data.

### THE WASHO AND NAVAJO

Aboriginal and modern Washo cultures have been described in Lowie (1939), Stewart (1941 and 1944), Freed (1960), Downs (1961 and 1966), Price (1962), d'Azevedo (1963), and Freed and Freed (1968); therefore, only a brief summary is required here. The Washo, who speak a language of the Hokan language family, live in western Nevada and eastern California, typically in small communities of a few families situated near the principal towns of the region: Gardnerville, Carson City, and Reno in Nevada; and Woodfords and Coleville in California. In pre-European times the Washo were nomadic hunters and gatherers; today they are generally wage earners. In the 1950's when we did our field work, Washo culture was chiefly western American with a moderate number of aboriginal survivals, principally in language, ceremonial, social structure, and in the techniques and material culture involved in gathering and cooking pine nuts and acorns. Also, the attitudes and beliefs of many Washo regarding family life, marriage, sexual behavior, and some aspects of religion appeared to be characteristically Washo.

Figure 1 is a diagram of Washo kinship terminology that shows only the relationships relevant to this research. The Washo have no compulsory residence rule. After marriage a new couple selects its residence according to circumstances; however, most couples live near either the husband's or wife's parents or other close relatives in what is essentially a bilocal pattern. Inheritance is basically bilateral in accord with modern American usage. The modern Washo family is usually nuclear, often with a few distant relatives attached. Serial monogamy is frequent; polygyny, the sororate, and the levirate, all of which were practiced in pre-European times, have been abandoned. The Washo have no sibs, lineages, or clans, and an aboriginal system of moieties has been lost. The kindred is either absent or very weakly formalized.

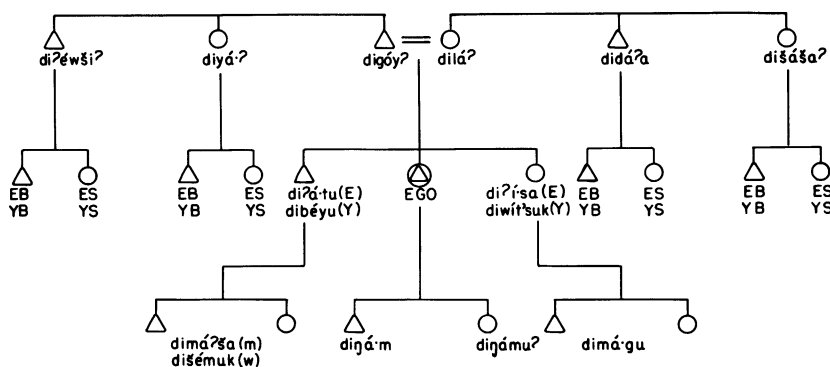


FIG. 1. Washo consanguineal kinship system (abbreviated). The use of elder and younger cousin terms depends on whether ego's parent is older or younger than the parent of ego's cousin. Adapted from Freed (1960, pp. 356-357).

*Symbols:* EB, elder brother; ES, elder sister; m, man speaking; w, woman speaking; YB, younger brother; YS, younger sister.

There is considerable literature on the Navajo of which the most useful from the point of view of this research is Aberle's (1961) extensive survey of the literature dealing with Navajo social structure. Our brief summary is principally based on our own data, especially as regards kinship terminology, and upon Aberle's work.

The Navajo, who speak a language of the Athapaskan language family, inhabit a large reservation that lies chiefly in Arizona. Like the Washo, the Navajo were originally hunters and gatherers. They now live principally from wage work, herding, and agriculture. A few areas are mainly agricultural; others depend heavily on herding. Our informants come from outside the relatively intensive agricultural areas. The Navajo settlement

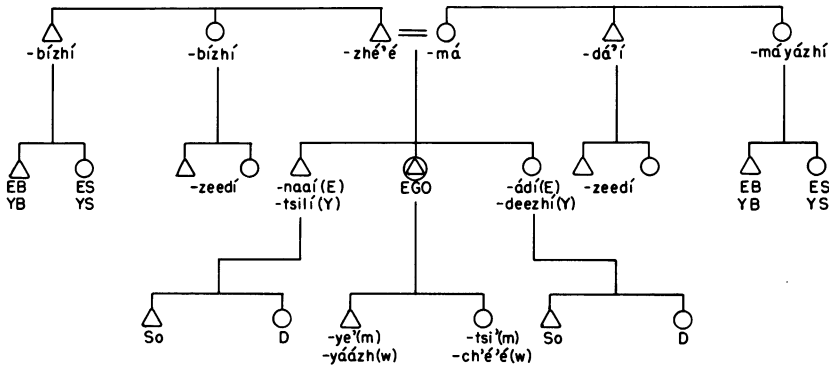


FIG. 2. Navajo consanguineal kinship system (abbreviated), Pine Springs. The use of elder and younger cousin terms depends upon whether ego's parent is older or younger than the parent of ego's cousin. Adapted from Freed and Freed (In press).

*Symbols:* D, daughter; EB, elder brother; ES, elder sister; m, man speaking; So, son; w, woman speaking; YB, younger brother; YS, younger sister.

pattern is one of scattered nuclear or extended households, typically separated from other households by a quarter of a mile up to several miles. The Navajo are generally more conservative than the Washo in regard to abandoning their traditional culture. This is especially true of language, ceremonial, and family life.

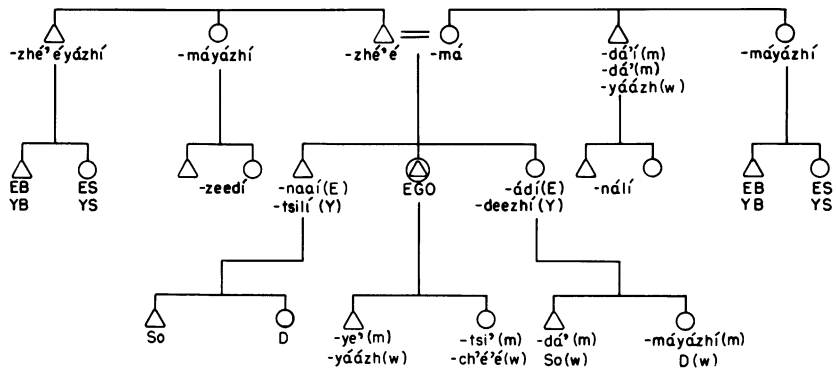


FIG. 3. Navajo consanguineal kinship system (abbreviated), Low Mountain and Piñon. The use of elder and younger cousin terms depends upon whether ego's parent is older or younger than the parent of ego's cousin. Adapted from Freed and Freed (In press).

*Symbols:* D, daughter; EB, elder brother; ES, elder sister; m, man speaking; So, son; w, woman speaking; YB, younger brother; YS, younger sister.

Figures 2 and 3 are diagrams of Navajo kinship terminology that show only the relationships relevant to this research. The situation as regards Navajo kinship terminology is more complicated than that of the Washo, for there are quite clear regional variations in the former. This affects our research for about half of our informants come from the region of Pine Springs, which has a different terminological system (fig. 2) from that of the Low Mountain and Piñon regions (fig. 3) where the rest of our informants live. Furthermore, there is a good deal of individual variation in the kinship terminologies of the informants from Low Mountain and Piñon. This individual variation has been ignored here although we have discussed it, as well as regional variation, in another paper (Freed and Freed, *In press*).

Among the Navajo, according to Aberle, matrilocality is preferred. A United States Government study conducted in the 1930's, which surveyed virtually the entire Navajo population, showed that 32 per cent of the families were matrilocal extended families (Aberle, 1961, pp. 187-188). Aberle calculated from the figures of the government survey that some 44 per cent of the Navajo population resided in matrilocal extended families. Thus there was a considerable matrilocality emphasis in the 1930's. Our own data indicate that this has been continued into the 1960's (see also Levy, 1962, pp. 782-784; Shepardson and Hammond, 1964, p. 1038; Reynolds, Lamphere, and Cook, 1967, pp. 189-191; and Witherspoon, 1970, p. 63), although it should be noted that our data come from a small non-random sample and that they cannot be used to define family types. We asked people with which relatives they were currently living and with whom they had lived as children. Mother's brothers, mother's sisters, and mother's parents were quite prominent in the responses, and from this we inferred a continuing matrilocality influence in Navajo family life.

The Navajo have exogamous matrilineal groups. Members of the same matrilineal group may not engage in sexual relations and are expected to extend aid and hospitality to one another. The members of a matrilineal group residing in a given area plus some of their close relatives who live nearby are loosely organized, forming a unit that Aberle called the local clan element that is the unilineal unit of collective action and joint responsibility. A matrilineal bias can be discerned in patterns of inheritance, for, although Navajo inheritance patterns are complex and show a good deal of flexibility (Shepardson and Hammond, 1966, pp. 90-91), members of the residence group (often matrilineal kin) and members of the deceased's matrilineage are among the types of potential heirs.

Navajo marriage is monogamous, but, as among the Washo, serial monogamy is frequent. Polygyny occurs. Aberle estimated that in the 1930's, 5 to 10 per cent of the marriages were polygynous. The levirate and sororate were strongly developed at one time, but all that remains today is an attitude that a marriage between a surviving spouse and a member of the clan of his deceased spouse is desirable.

In elements of social organization, the Washo and Navajo show noteworthy differences. The Washo are bilateral; the Navajo, matrilineal. The Washo have no unilineal kin groups; the Navajo have matrisibs. The Washo family is generally nuclear; matrilocal extended families are prominent among the Navajo. Polygyny occurs among the Navajo but is effectively absent among the Washo. The Navajo prefer matrilocal residence; the Washo have no preferred residence rule. Among both groups, serial monogamy is frequent, and the sororate and levirate are absent. In summary, we may say that in comparing the Washo and the Navajo, we are comparing a bilateral with a matrilineal society.

### THE ROLE PROFILE TEST

The role profile test consists of a questionnaire, a technique for eliciting answers to questions, and a statistical method for analyzing the responses. As a preliminary to administering the test, we elicited a brief life history and an abbreviated genealogy to discover with which relatives of those diagrammed in figures 1-3 a particular respondent had the opportunity to interact. For example, if a relative lived close to a respondent for many years, he was included in the test even if the respondent rarely saw him, because the opportunity for interaction existed, and the fact that little took place is an important aspect of role behavior. On the other hand, if a relative died when the respondent was a baby, or if he lived at a great distance, or was feeble-minded, he was excluded, for the respondent had no opportunity to interact with him. In practice, the informant effectively decided whether to include or exclude a relative. Some respondents would exclude a relative because he was dead or because he never knew him or rarely saw him. However, another respondent might include a relative in generally similar circumstances.

After noting the information, we gave the respondent a set of cards on each of which was written a kinship term, quasi-phonetically. The respondent was given cards only for those relatives noted in his genealogy. We then asked 16 questions about various kinds of interpersonal behavior; for each question, the respondent was asked to arrange the cards in a column, placing the relative ranking highest in the behavior in question

at the top, and the others in descending order, with the one ranking lowest at the bottom. We noted the responses, shuffled the cards, returned them to the respondent, and asked the next question.

The result is a test protocol ranking the cards in each of 16 kinds of interpersonal behavior. We assumed that the introductory interviewing would establish a connection in the respondent's mind between the kinship terms written on the cards and the kinsmen in his genealogy. Thus, the resultant protocol is the respondent's statement of the attitudes and behavior of his relatives. The problem of how to deal with a situation in which a respondent has two relatives denoted by the same term (e.g., female informants from Low Mountain and Piñon use the same term for son and mother's brother) is discussed below.

The questionnaire of the role profile test as originally used among the Washo is given below. Some modifications, principally the substitution of synonyms, were made in the questionnaire when used among the Mohave (Freed and Freed, 1968, p. 21). These synonyms were retained in administering the test to the Navajo. The order of questions is not random; rather it emphasizes an important feature of the questionnaire. Four general qualities of interpersonal interaction are involved: dominance, affection, submission, and hostility. These are expressed in purest form in questions 1, 5, 9, and 13 respectively. Questions 1 to 5 are thought to combine the qualities of dominance and affection in various degrees; questions 5 to 9 combine affection and submission; 9 to 13, submission and hostility; and 13 to 16, hostility and dominance. In general, the more positive features of role behavior are at the beginning of the test; questions 11 to 16 involve various amounts of hostility.

#### QUESTIONNAIRE OF THE ROLE PROFILE TEST

1. Which relative most often tries to tell you what to do? Which most often gives you orders (or bosses you)?
2. Which relative most often teaches you how to do something? Which one gives you advice or tells you his opinions?
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?
5. Which relative is specially fond of you?
6. Which relative most often cooperates (works together) with you?
7. Which relative depends on you most and most often asks your help?
8. Which relative respects you the most? Which one asks your opinions?
9. Which relative obeys (minds) you if you tell him or her to do something?
10. Which relative is most eager for your approval?
11. Which relative would be the most likely to say or think you did something wrong (or bad)?
12. Which relative nags you most?



13. Which relative disapproves of you and criticizes you most often?
14. Which relative punishes you or gets angry (or mad) if you don't mind or if you do something wrong (or bad)?
15. Which relative is most likely to refuse you help 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 of test protocols 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. This could be achieved only by quantifying the data in some way. We did this by assigning normal scores to the ranks, then calculated the mean, standard error of the mean, and 95 per cent confidence limits for each role for all 16 questions. We analyzed male and female protocols separately because we 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 each other. The means of two relatives for any question were considered significantly distinct when their 95 per cent confidence limits failed to overlap.

Roles may be presented in a convenient visual form by plotting the means for all 16 questions on graph paper and connecting the points with lines. The resultant figure is a role profile. Only the points (means) are significant; the lines are added only for visibility, and their slopes have no meaning. If role profiles are drawn on transparent paper, each role on a separate sheet, one can quickly compare any two roles simply by laying one sheet on top of the other. Areas of similarity and difference become immediately apparent, and one soon becomes skilled at judging where differences in means may be significant and should be checked in the tables of means and confidence intervals.

The foregoing is a brief summary of the nature and use of the role profile test. Fuller descriptions, including a discussion of the assumptions involved in the statistical analysis, and an account of some of the difficulties encountered in using the test can be found in Freed (1960, 1965) and Freed and Freed (1968).

#### FIELD WORK AMONG THE NAVAJO, WASHO, AND MOHAVE

The circumstances under which field work was carried out differed considerably between the Washo and Mohave on the one hand and the Navajo on the other. We did all the interviewing of the Washo and Mohave. We lived close to, but not among them, and visited people

whenever they had time for an interview. One interview often led to another as interviewees suggested friends or relatives as potential respondents. We also did a considerable amount of canvassing, going from door to door trying to arrange interviews. We made no attempt at random sampling; and because we made considerable use of networks of kinsmen or friends our group of respondents was clearly non-random. This was, however, balanced in part by our canvassing technique. Because both the Washo and Mohave are small, homogeneous groups, we believe that our sample of respondents is probably reasonably representative. All interviews were in English except for four conducted in Washo through an interpreter.

No noteworthy difficulties developed in working with either group. The test seemed particularly suited to the Washo who, with few exceptions, had no difficulty in providing complete answers to all questions. The Mohave, although as cooperative and friendly as the Washo, reacted somewhat differently to the test with few respondents supplying complete protocols. Because the two of us did all the interviewing in both groups, we attributed the differences in reactions of the Washo and Mohave not to differences in interviewers but to possible differences in habitual patterns of thought between the two groups.

All the interviewing among the Navajo was done by five non-Navajo college students. All were unmarried women ranging in age from 19 to 24. One woman had completed two years of graduate study in anthropology, one was a recent graduate who had majored in anthropology, and the others had completed their junior years and had taken numerous courses in anthropology. We arranged for the girls to live with Navajo families; one girl worked alone near Pine Springs; two lived with a Navajo family near Low Mountain; and the other two lived with a family several miles north of Piñon. Piñon and Low Mountain are both about 108 miles from Pine Springs. The family at Low Mountain and the family in Piñon were only about 28 miles apart, but most of the distance had to be traversed over dirt roads, and it took us almost an hour, at an admittedly conservative pace, to drive from one to the other. The Navajo in their pickup trucks made better time than we did in a sedan. The result of the girls' living arrangements was that we had two principal clusters of respondents, one at Pine Springs, the other at Low Mountain and Piñon.

Before the girls left New York for the Navajo Reservation, we spent time acquainting them with the role profile test and advising them about working among the Navajo. More time was spent (10 days or so) with

the first girl who was to leave for Pine Springs, than with the other four. We did this because she was to be the first, and because we regarded her as a test of how satisfactory work through research assistants would be. Also, she had several more weeks to spend on the project than did the other girls, 15 weeks as compared to nine. In the latter case, a long training period would have eaten drastically into the time the girls would have on the Navajo Reservation, so we kept them in New York only two or three days.

We took a calculated risk in not giving a longer training period and in not accompanying the girls to the reservation. However, we counted on three factors to make the project successful, most important of which was that all the girls would be living with Navajo families. We were counting on the intelligence and good sense of the families to see that the girls were reasonably successful. Also, we did not think that the test was difficult to administer. And finally, we thought that the girls' training in anthropology would be a help.

A satisfactory rate of interviewing in a project such as this is about three interviews per week per interviewer or, when interviewers work in pairs, about four a week. Thus, we hoped for about 45 interviews from the one girl and about 36 from each of the pairs. We believed that the girls could get about half of their interviews by working through the kin and friendship networks of their families and the other half by canvassing and following up contacts made at ceremonies or in casual conversations. The girl at Pine Springs came quite close to our estimate, collecting 40 protocols. The two girls at Low Mountain interviewed 30 respondents; and the pair at Piñon produced 23 role profile tests.

In retrospect, we were generally correct about the aid that could be expected from the Navajo families that housed the girls. Two families were very helpful, but the one at Piñon became progressively less cooperative as time passed to the extent that work became almost impossible during the last two weeks. The two girls involved never learned exactly what happened. In any case, rumors that they were communist spies circulated throughout their immediate area, and many people refused to work with them.

We overestimated the simplicity of administering the role profile test and conducting the accompanying genealogical interview. Three of the girls had little trouble but two had considerable difficulty due, we think, as much to general inexperience in interviewing as to the test itself. We also found that the number of courses in anthropology that a student has taken does not necessarily correlate with success in field work.

Many other factors seem to count for more, principally the personality and general intelligence of the field worker, his motivation and mental toughness, and luck.

Like the Mohave and the Washo, the Navajo have a taboo against mentioning the names of the dead. This can cause difficulty in genealogical interviewing. As we did not have to know the names of people but only whether a respondent had particular kinds of relatives, the respondent needed only say that he did have, for example, a father's brother but he did not have to use the man's name if he were dead. This tactic worked well among the Navajo. Among the Mohave and Washo, we elicited names in our genealogical interviewing.

A major problem the students faced, which was not a factor in our work with the Washo and Mohave, was finding and keeping a good interpreter. Many Navajo speak little or no English, and 41 per cent of the interviews had to be conducted through an interpreter. In the matter of interpreters, the families with which the girls lived were crucial, for all the interpreters were members of these families. They varied a good deal in ability. The girl who worked at Pine Springs was most fortunate in having an extremely intelligent and able 21-year-old man as interpreter. His skill and tact were important factors in her success. The girls at Low Mountain used two teen-age girls who were not as able as the interpreter from Pine Springs. The interpreter at Piñon, a woman in her late twenties, did a good job when she was willing to work, but pressured by relatives to stop working, she did so toward the end of the field work, leaving the girls at Piñon without an interpreter.

We tried to make sure that all the interpreters were using the same translation of the role profile test questionnaire. The student at Pine Springs began work two and one-half months before the others; hence, the translation that her interpreter produced would guide the other interpreters. Fortunately, the Pine Springs interpreter was conscientious and extremely good. In making this first translation, we asked our student assistant to make the following check after her interpreter had translated the questions to his satisfaction. She was to ask her interpreter to translate the English into Navajo and then get someone else to translate the Navajo back into English. She could then compare the two English versions. This was the only way we could gain some idea of the accuracy of the translation, for none of us had any knowledge of Navajo.

When the other four students arrived at the reservation, they were to meet with the girl from Pine Springs for a session of general orientation at which her interpreter would tape the questionnaire so that they

could play the tape for their interpreters. This meeting did not go well. The four new arrivals had too much to do and were faced with too many new situations to get much from this orientation meeting. The Pine Springs interpreter did as well as he could but he was unhappy about the session. In the end, the four new arrivals said that they could not use the translation of the Pine Springs interpreter. Thus, the interpreters at Low Mountain began work without knowing what the interpreter at Piñon was doing, and none of them knew what the one at Pine Springs had done.

We learned of this after the girls had been in the field about a week and had made their first reports. On the basis of the first reports, it was clear that the girls at Low Mountain were having serious problems while things seemed to be going well at Piñon. We then asked our Pine Springs researcher to go to Low Mountain with her interpreter to talk to the pair of girls and their interpreters. First, this visit would permit the interpreters to coordinate translations, and, second, the Low Mountain girls were clearly in need of advice on how to approach people for interviews. This attempt to bring the interpreters together was a failure when the girls at Low Mountain refused to let the Pine Springs interpreter talk to their interpreters on the grounds that the latter might become angry if they thought that someone was checking up on them.

We arrived on the reservation about two weeks after the four girls arrived at Low Mountain and Piñon. The problem of getting the interpreters together was one of our primary concerns. At that time, it looked as though the research at Piñon would be productive but that not much would come from Low Mountain. We therefore concentrated on bringing the Pine Springs and Piñon interpreters together. The result was a very encouraging session. Our procedure was to read the questions in English to the Piñon interpreter who then gave the translation she had been using. We then asked the Pine Springs interpreter if the translation was properly rendered. For all questions but one, the interpreters agreed that they had been using the same or equivalent words and phrases. The question dealing with "respect" required a little adjustment. Thus, we were reasonably satisfied that the translations used at Pine Springs and at Piñon were equivalent.

We were not, however, able to arrange a meeting between the Pine Springs and the Low Mountain interpreters. At the time it appeared that this would be unimportant for not much was being accomplished at Low Mountain; but in the second half of the summer, Low Mountain became the productive area and the situation at Piñon deteriorated. The Pine Springs and Low Mountain interpreters never did get together,

but toward the end of the field work, the Piñon and Low Mountain interpreters met. Translations were compared as had been done at the earlier meeting between the Pine Springs and Piñon interpreters. Our assistants reported that the translations of most questions were in good agreement, but that two or three were slightly different. Of course, by that time, most of the interviewing at Piñon and Low Mountain had been completed.

In general, most of the key words in the role profile test seemed fairly easy to translate into Navajo. When translation problems occurred, they seemed due not so much to language as to behavioral concepts. Nagging, for example, seems to be a particularly "Anglo" behavior pattern, for it made little sense to many Washo, Mohave, or Navajo respondents, even to those who were being interviewed in English. Among the Navajo, the question often caused a good deal of giggling, for apparently the word that best translates the concept has a connotation of "to touch physically," or even "to molest sexually." The Pine Springs interpreter used to get the idea of nagging across with an anecdote. Other words, too, such as respect and approval, caused some difficulty. On the other hand, verbs such as boss, teach, help, and like, seemed easy to translate into Navajo and also worked well with the Washo and the Mohave.

The present questionnaire has been used enough to indicate that a revision is advisable. Of the present questions, numbers 8 (to respect), 10 (to want approval), 11 (to suspect wrongdoing), and 12 (to nag) might be revised or eliminated. It would be desirable to have a considerably longer list of questions from which an investigator could select smaller sets for use in a particular society. Of course, in making comparative studies, one would have to use a similar list of questions in each of the societies involved.

#### RELIABILITY: EFFECTS OF DIFFERENT INTERVIEWERS AND INTERPRETERS

Reactions of the Washo and Mohave to the role profile test were different. The typical Washo informant ranked all his relatives for all questions and made no use of ties. The typical Mohave protocol was incomplete. Questions were often rejected, especially those toward the end of the questionnaire that dealt with hostility. Usually respondents did not rank all their relatives for the questions they did answer, and they frequently tied several relatives for a rank. This raised the question of the reasons for the different reactions of the typical Mohave and Washo. Because we did all of the interviewing in both tribes, we suggested that the different reactions reflected somewhat unlike patterns

of thought in the two groups (Freed, 1965). Other factors could have been involved, of course: for one thing, we were better known to the Washo than to the Mohave, which was a definite help in canvassing the Washo. However, the potentially important effects of different interviewers on the results obtained with the role profile test could not be evaluated on the basis of our work with the Washo and Mohave. The Navajo research gives us the opportunity to appraise the effects of different interviewers and interpreters.

The typical protocol from Pine Springs was like the typical Washo protocol. Twenty-seven of the 40 respondents ranked all relatives for all questions; the rest ranked all relatives for most questions, usually rejecting only question 16 or questions 15 and 16 that dealt with strong hostility. The Pine Springs Navajo made no use of ties, giving each relative a separate rank. The typical respondent from Piñon ranked all relatives but rejected a few questions, usually those toward the end of the questionnaire that involved hostility; 12 of the 23 respondents ranked all relatives for most questions and eight answered all questions and ranked all relatives. The Piñon Navajo also made no use of ties. Although the Low Mountain Navajo produced usable protocols, they performed poorly in comparison with the people from Piñon and Pine Springs. The typical Low Mountain respondent ranked varying numbers of relatives for most questions, again usually rejecting the questions on hostility, but rejecting more of them than the respondents from Pine Springs and Piñon. Only one respondent from Low Mountain answered all the questions. Also, the Low Mountain respondents made some slight use of ties.

Thus, the Navajo exhibited a range of responses that we obtained from two tribes, the Washo and the Mohave. With the Navajo, the range of responses cannot be attributed to different thought patterns, as it can with the Washo and the Mohave; this raises the question as to whether in the latter case we overestimated the importance of differences in thought patterns and underestimated possible differences in rapport and familiarity. This cannot be discounted; however, we note that we had not spoken to many of our Washo respondents until the moment when we gave them the role profile test, and they nonetheless performed as well as people whom we had known for some time.

In the case of the Navajo, the two most prominent causes for differences in reactions of respondents to the role profile test are different interviewers and different interpreters. The most skillful interpreter was from Pine Springs; the one from Piñon was next best; and the teenagers from Low Mountain were the least satisfactory. We think that the initial

experiences of our student interviewers, all of whom were inexperienced, had a pronounced effect upon their performances. The girl at Pine Springs was successful from the beginning, and so she, we suspect, was relatively confident in her interviews and expected to have all questions answered; and this confidence was communicated to the respondents, who reacted accordingly. The girls at Piñon had similar initial successes. The girls at Low Mountain, however, faced substantial difficulties in getting started, which probably affected their interviewing throughout the summer.

Three problems that arise in giving the test are: getting answers to all questions, having respondents rank all their relatives instead of just those who are easy to rank, and trying to get respondents to avoid the use of ties. With regard to the first point, the questions involving hostility are the ones that cause trouble. The Pine Springs girl adopted a simple device for neutralizing the presumed shock arising from hostility questions; she would ask a question and then immediately giggle. The giggle as a field technique may not be useful for everyone, but for her it was apparently effective. Coaxing is often useful in getting all relatives ranked and ties broken. The more cooperative respondents can, in many cases, be talked out of using ties or coaxed into ranking all relatives by telling them that the test "doesn't work very well" unless they complied. It is legitimate to coax respondents to do these things, for often after a few moments' thought a respondent can find some slight grounds for breaking a tie or for ranking a relative he was going to exclude. For some respondents, but by no means for all, ties and the failure to rank all relatives may be due to boredom or laziness: they may just want to be done with the test and choose an easy way out.

With regard to obtaining useful interviews, the experiences of our researchers show that the interviewer and the interpreter make a difference in the quality of the results. All the girls, however, produced useful protocols despite their inexperience in interviewing, working through interpreters, and having to begin work without the opportunity of living with the Navajo long enough for them and the Navajo to become accustomed to each other. Thus the test can be used successfully by relatively inexperienced interviewers in field trips of quite short duration.

The question of whether the role profile test produces similar results when used by different interviewers can be investigated by comparing the results of the analysis of the Pine Springs protocols with those from Low Mountain and Piñon. The Low Mountain and Piñon protocols are treated as one group because the two trading posts are only about



15 miles apart (the girls at Piñon lived about 13 miles north of the trading post) and the same kinship terminology is used throughout the region. Pine Springs, on the other hand, is 108 miles away and has a different kinship terminology. Then, too, there were too few protocols from either Low Mountain or Piñon to analyze separately.

The comparison of roles involves several complications. First, we made comparisons only when a minimum of eight respondents included a relative in answering a particular question. Although we had totals of 53 respondents from Low Mountain and Piñon and 40 from Pine Springs, the fact that each respondent ranked a different set of relatives and that not all respondents answered all questions or included all their relatives in those they did answer sometimes reduced the number of respondents ranking a particular relative for a question below eight.

Second, kinship terms are used differently in Low Mountain and Piñon on the one hand and Pine Springs on the other. The type of complication that arises from this can be illustrated by the term *-yáázh*, which is used by women from Low Mountain and Piñon for son, mother's brother, brother's son, and sister's son. The women from Pine Springs use *-yáázh* for son, brother's son, and sister's son, but they use a distinctive term for mother's brother. Suppose a woman from Piñon has both a mother's brother and a son. For which kintype denoted by *-yáázh* is the score made in the role profile test to be credited? In such cases, we assumed that the respondent had the genealogically closer relative in mind in answering the questionnaire. Thus, in the instant case, we would score the respondent's answers for son, a primary relative, and not for mother's brother, a secondary relative. Occasionally there was internal evidence to indicate that the respondent had the more distant relative in mind. For example, the son might be a baby and yet the card with *-yáázh* written on it was ranked high on such questions as "who bosses you" and "who teaches you." Obviously the respondent had the mother's brother in mind and not the son, and the responses were scored accordingly. If the kintype to which the term referred could not be decided, as when a person used *-má yázhí* for both mother's sister and father's sister, the score could not be assigned to either kintype and therefore could not be used.

Father's siblings were a problem, for father's brother and father's sister are distinguished in the terminology used at Piñon and Low Mountain but not at Pine Springs. We created a father's sibling role from the Piñon and Low Mountain data by treating father's brother and father's sister as one kintype. The score of a father's brother for one respondent was combined in the statistical analysis with the score

of a father's sister from another respondent to yield means and standard errors of the mean for a father's sibling role. If a respondent had both a father's brother and father's sister, the scores were averaged to give a single score.

Comparisons could be made between the two regions for the following roles: father, father's sibling, mother, mother's brother, mother's sister, elder brother, younger brother, elder sister, younger sister, son, and daughter. Significant differences occurred for mother (question 6, male respondents and question 14, female respondents), mother's brother (questions 3 and 12, female respondents), and mother's sister (question 2, female respondents).

These results are ambiguous regarding the reliability of the test, that is, as to whether different interviewers and interpreters achieve substantially similar results. We would ordinarily expect no difference in roles in random samples of respondents, or even in non-random samples selected from a relatively small and homogeneous group. The Navajo, however, may not be homogeneous with regard to role behavior as they are not homogeneous with respect to kinship terminology. If we accept the assumption of a relationship between kinship terminology and role behavior, then we would expect differences in role behavior, as well as in kinship terminology between Pine Springs and Low Mountain and Piñon. Furthermore, our samples are small, which increases the chance of sampling error. Thus, the fact that the role profile test reveals five significant differences in the role behavior between the two regions does not indicate that the role profile test is unreliable, but it does not confirm the reliability of the test. We note that these five significant differences are less than the 13 that occur between corresponding Navajo and Washo roles (see below). We would expect, of course, more differences in role behavior between the Navajo and Washo than among different regions of the Navajo.

#### VALIDITY: COMPARISON OF ROLE PROFILE TEST DATA WITH INDEPENDENT DATA

An appraisal of the validity of the role profile test can be made by comparing role behavior revealed by the test with that reported by Aberle (1961). The results of the statistical analysis of the combined Navajo data from both the Pine Springs and the Low Mountain and Piñon regions are given in tables 1 to 16 along with Washo data from Freed (1960).<sup>1</sup> Tables 17-19 are comparisons of the means of roles with

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<sup>1</sup> The data for elder brother, younger brother, elder sister, and younger sister reported

regard to whether they differ significantly. Navajo role profiles are given in figures 4-27 with profiles of comparable Washo roles. Aberle's data (1961) on role behavior can be found scattered throughout his paper but especially on pages 146-172. Some of Aberle's data related to specific duties or actions rather than to the general qualities of roles; therefore comparisons cannot be made. For example, he described the role of the mother's brother in the negotiations concerning marriage; such an item of behavior is not covered specifically by the general questions of the role profile test. On the other hand, Aberle gives a good deal of information about such matters as authority over children, discipline, and affection, and this behavior is covered by the role profile test.

**MOTHER AND CHILDREN:** Aberle described the solidarity of the mother and her children as strong and intense. The mother is also, said Aberle, an authority figure. The data from the role profile test support this interpretation and permit us to go beyond it. Of the relatives included in the role profile test, the mother is the most important and distinctive for a Navajo (see also Witherspoon, 1970). There are many more significant distinctions between her role and the roles of other relatives than there are between the role of father, the second most important and distinctive relative, and other relatives (table 18). Mother scores above all relatives in important matters like authority, affection, and punishment (except in the latter case for father, male respondents). She ranks very low in rejection (questions 15 and 16); only son and daughter (female respondents) score only slightly beneath her. As to whether mother's brother and mother's sister, members of her matrilineage, approach her in importance, we can say that they are relatively unimportant despite the bond of a common lineage and membership in the same generation. The role of mother is significantly distinct from the roles of mother's brother and mother's sister for the majority of questions (44 of 64 possible comparisons). The only relative with a role profile like that of the mother is the father. Thus among the Navajo, the parents

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here differ somewhat from those of Freed (1960). Among the Washo, sibling terms are used for cousins and for siblings. In cases where respondents had cousins but no siblings, scores were credited to "siblings." This procedure provided a more stringent test of the hypothesis under investigation in that paper. In the present research, we credited scores to siblings only if a respondent had a sibling, for Navajo kinship terminology appeared to offer the possibility of drawing role profiles for parallel cousins, cross cousins, and siblings. This possibility did not materialize; but because of how we decided to handle the scores of Navajo siblings, we had to recalculate the Washo data, disregarding scores when respondents had cousins but no siblings, in order to achieve maximum comparability between Navajo and Washo kintypes.

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Lower	Washo	Upper
Male respondents										
Father	30	19	.73	1.10	.14	.18	.45	.74		1.01
Father's brother	—	14	—	.40	—	.16	—	.08		—
Father's sister	—	13	—	.35	—	.22	—	—		.79
Father's sibling	22	—	.00	—	.14	—	—	—		—
Mother	31	20	1.16	.76	.11	.14	.94	.48		1.38
Mother's brother	28	12	.00	—	.16	.21	—	—		—
Mother's sister	28	11	.09	.28	.14	.13	—	—		—
Elder brother	23	11	.31	.36	.14	.23	.03	.02		.37
Younger brother	23	11	—	—	.15	.16	—	—		—
Elder sister	29	9	.40	.12	.11	.14	.18	—		.62
Younger sister	29	9	—	—	.13	.24	—	—		—
Son	14	9	—	—	.22	.13	—	—		—
Daughter	15	10	—	—	.16	.14	—	—		—
Female respondents										
Father	46	21	.62	.86	.12	.15	.38	.56		.86
Father's brother	—	16	—	—	—	.20	—	—		—
Father's sister	—	10	—	—	—	.31	—	—		—
Father's sibling	34	—	—	—	.12	—	—	—		—
Mother	48	26	1.01	1.02	.09	.10	.83	.82		1.19
Mother's brother	34	15	.08	.25	.14	.26	—	—		—
Mother's sister	35	18	.20	.60	.12	.15	—	—		—
Elder brother	35	16	.15	.56	.11	.19	—	—		—
Younger brother	41	19	—	—	.10	.12	—	—		—
Elder sister	30	22	.23	.49	.12	.12	—	—		—
Younger sister	42	14	—	—	.12	.22	—	—		—
Son	29	19	—	—	.15	.20	—	—		—
Daughter	30	18	—	—	.17	.14	—	—		—

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits Lower		95 Per Cent Confidence Limits Upper	
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Washo
Male respondents										
Father	30	19	.77	1.23	.14	.08	.49	1.07	1.05	1.39
Father's brother	—	14	—	.72	—	.14	—	.44	—	1.00
Father's sister	—	13	—	.07	—	.23	—	-.39	—	.53
Father's sibling	22	—	-.06	—	.16	—	-.38	—	.26	—
Mother	31	20	1.03	.99	.10	.10	.83	.79	1.23	1.19
Mother's brother	28	12	.25	.18	.14	.19	-.03	-.20	.53	.56
Mother's sister	28	11	.10	.15	.14	.16	-.18	-.17	.38	.47
Elder brother	23	11	.35	.27	.16	.08	.03	.11	.67	.43
Younger brother	23	11	-.60	-.54	.14	.12	-.88	-.78	-.32	-.30
Elder sister	29	9	.29	-.09	.13	.18	.03	-.45	.55	.27
Younger sister	29	9	-.64	-.62	.14	.17	-.92	-.96	-.36	-.28
Son	14	9	-.80	-.63	.21	.14	-1.22	-.91	-.38	-.35
Daughter	15	10	-.72	-1.11	.18	.13	-1.08	-1.37	-.36	-.85
Female respondents										
Father	46	21	.78	.46	.09	.17	.60	.12	.96	.80
Father's brother	—	16	—	-.39	—	.20	—	-.79	—	.01
Father's sister	—	10	—	-.26	—	.25	—	-.76	—	.24
Father's sibling	33	—	-.21	—	.12	—	-.45	—	.03	—
Mother	48	26	1.20	1.01	.06	.15	1.08	.71	1.32	1.31
Mother's brother	34	15	.04	.18	.14	.15	-.24	-.12	.32	.48
Mother's sister	35	18	.21	.87	.12	.14	-.03	.59	.45	1.15
Elder brother	35	16	.24	.40	.11	.18	.02	.04	.46	.76
Younger brother	41	19	-.34	-.09	.10	.15	-.54	-.39	-.14	.21
Elder sister	30	22	.25	.52	.15	.16	-.05	.20	.55	.84
Younger sister	41	14	-.38	-.01	.11	.18	-.60	-.37	-.16	.35
Son	29	19	-.54	-.44	.14	.15	-.82	-.74	-.26	-.14
Daughter	30	18	-.38	-.45	.16	.17	-.70	-.79	-.06	-.11

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Lower	Washo	Upper
Male respondents										
Father	30	19	.57	.80	.15	.18	.27	.44	.87	1.16
Father's brother	—	14	—	.55	—	.18	—	.19	—	.91
Father's sister	—	13	—	-.31	—	.24	—	-.79	—	.17
Father's sibling	22	—	-.35	—	.17	—	-.69	—	-.01	—
Mother	32	20	.95	.80	.12	.18	.71	.44	1.19	1.16
Mother's brother	29	12	.14	.12	.12	.11	-.10	-.10	.38	.34
Mother's sister	29	11	.18	.04	.16	.17	-.14	-.30	.50	.38
Elder brother	24	11	.30	.45	.12	.18	.06	.09	.54	.81
Younger brother	23	11	-.28	.14	.14	.18	-.56	-.22	.00	.50
Elder sister	29	9	.15	-.10	.17	.18	-.19	-.46	.49	.26
Younger sister	29	9	-.19	-.48	.17	.30	-.53	-.1.08	.15	.12
Son	14	9	-.29	-.20	.26	.28	-.81	-.76	.23	.36
Daughter	15	10	-.58	-.83	.22	.22	-.1.02	-.1.27	-.14	-.39
Female respondents										
Father	44	21	.47	.76	.14	.19	.19	.38	.75	1.14
Father's brother	16	—	—	-.09	—	.17	—	-.43	—	.25
Father's sister	—	10	—	-.29	—	.25	—	-.79	—	.21
Father's sibling	32	—	-.16	—	.10	—	-.36	—	.04	—
Mother	48	26	.73	1.03	.10	.14	.53	.75	.93	1.31
Mother's brother	35	15	.05	.11	.14	.18	-.23	-.25	.33	.47
Mother's sister	33	18	.04	.23	.14	.19	-.24	-.15	.32	.61
Elder brother	35	16	.34	.62	.13	.20	.08	.22	.60	1.02
Younger brother	41	19	-.11	-.03	.13	.18	-.37	-.39	.15	.33
Elder sister	30	22	.45	.34	.14	.15	.17	.04	.73	.64
Younger sister	41	14	-.17	.09	.13	.20	-.43	-.31	.09	.49
Son	29	19	-.22	-.29	.16	.17	-.54	-.63	.10	.05
Daughter	30	18	-.18	-.55	.17	.18	-.52	-.91	.16	-.19

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Lower	Washo	Upper
Male respondents										
Father	30	19	.63	.77	.12	.17	.39	.43	.87	1.11
Father's brother	—	14	—	.04	—	.21	—	-.38	—	.46
Father's sister	—	13	—	-.32	—	.32	—	-.96	—	.32
Father's sibling	21	—	.02	—	.14	—	-.26	—	.30	—
Mother	32	20	1.01	.89	.14	.14	.73	.61	1.29	1.17
Mother's brother	29	12	.16	-.15	.10	.16	-.04	-.47	.36	.17
Mother's sister	29	11	.36	.26	.16	.26	.04	-.26	.68	.78
Elder brother	24	11	.04	.42	.12	.12	-.20	.18	.28	.66
Younger brother	23	11	-.42	-.08	.13	.21	-.68	-.50	-.16	.34
Elder sister	29	9	.04	-.13	.17	.21	-.30	-.55	.38	.29
Younger sister	29	9	-.49	-.42	.15	.30	-.79	-.102	-.19	.18
Son	14	9	-.38	-.02	.26	.19	-.90	-.40	.14	.36
Daughter	16	10	-.34	-.15	.23	.34	-.80	-.83	.12	.53
Female respondents										
Father	41	21	.66	.56	.14	.20	.38	.16	.94	.96
Father's brother	—	16	—	-.10	—	.19	—	-.48	—	.28
Father's sister	—	10	—	-.50	—	.29	—	-.108	—	.08
Father's sibling	33	—	-.34	—	.10	—	-.54	—	-.14	—
Mother	44	26	.96	1.01	.12	.15	.72	.71	1.20	1.31
Mother's brother	33	15	.04	-.16	.12	.22	-.20	-.60	.28	.28
Mother's sister	33	18	-.03	.03	.14	.18	-.31	-.33	.25	.39
Elder brother	32	16	.12	.41	.12	.14	-.12	.13	.36	.69
Younger brother	40	19	-.13	.25	.10	.16	-.33	-.07	.07	.57
Elder sister	29	22	.32	.37	.14	.14	.04	.09	.60	.65
Younger sister	38	14	.10	.25	.13	.25	-.16	-.25	.36	.75
Son	25	19	-.31	-.07	.18	.17	-.67	-.41	.05	.27
Daughter	25	18	-.24	-.10	.18	.21	-.60	-.52	.12	.32

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Lower	Navajo	Washo	Upper
Male respondents										
Father	30	19	.58	.30	.12	.22	.34	.82	-.14	.74
Father's brother	—	14	—	.19	—	.25	—	—	-.31	.69
Father's sister	—	13	—	-.20	—	.24	—	—	-.68	.28
Father's sibling	21	—	-.49	—	.18	—	-.85	-.13	—	—
Mother	32	20	.70	.60	.18	.20	.34	1.06	.20	1.00
Mother's brother	29	12	-.06	-.17	.13	.15	-.32	.20	-.47	.13
Mother's sister	27	11	.12	.23	.14	.20	-.16	.40	-.17	.63
Elder brother	24	11	.01	.25	.17	.16	-.33	.35	-.07	.57
Younger brother	23	11	-.12	-.08	.16	.14	-.44	.20	-.36	.20
Elder sister	29	9	.13	-.40	.17	.26	-.21	.47	-.92	.12
Younger sister	29	9	-.17	-.37	.15	.24	-.47	.13	-.85	.11
Son	14	9	-.17	.36	.28	.26	-.73	.39	-.16	.88
Daughter	16	10	.09	.08	.24	.42	-.39	.57	-.76	.92
Female respondents										
Father	44	20	.45	.69	.15	.16	.15	.75	.37	1.01
Father's brother	—	15	—	-.46	—	.19	—	—	-.84	-.08
Father's sister	—	9	—	-.45	—	.34	—	—	-1.13	.23
Father's sibling	33	—	-.50	—	.12	—	-.74	-.26	—	—
Mother	47	25	.93	.93	.11	.11	.71	1.15	.71	1.15
Mother's brother	35	15	-.13	-.07	.14	.26	-.41	.15	-.59	.45
Mother's sister	33	17	-.16	—	.15	.17	-.46	.14	-.34	.34
Elder brother	35	15	.03	.44	.12	.23	-.21	.27	-.02	.90
Younger brother	41	18	.09	-.04	.10	.20	-.11	.29	-.44	.36
Elder sister	30	21	.34	.31	.12	.16	.10	.58	-.01	.63
Younger sister	42	13	.27	.38	.11	.20	.05	.49	-.02	.78
Son	29	18	.03	.25	.14	.18	-.25	.31	-.11	.61
Daughter	30	17	.08	.13	.15	.18	-.22	.38	-.23	.49



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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits Lower		Upper	
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Washo
Male respondents										
Father	30	19	.35	.42	.14	.18	.07	.06	.63	.78
Father's brother	—	14	—	.40	—	.26	—	-.12	—	.92
Father's sister	—	13	—	-.57	—	.19	—	-.95	—	-.19
Father's sibling	21	—	-.11	—	.19	—	-.49	—	.27	—
Mother	32	20	.43	.05	.11	.24	.21	-.43	.65	.53
Mother's brother	29	12	.02	-.14	.14	.21	-.26	-.56	.30	.28
Mother's sister	29	11	-.03	-.24	.15	.20	-.33	-.64	.27	.16
Elder brother	25	11	.60	.57	.14	.15	.32	.27	.88	.87
Younger brother	23	11	.35	.36	.18	.25	-.01	-.14	.71	.86
Elder sister	29	9	.30	-.18	.17	.21	-.04	-.60	.64	.24
Younger sister	29	9	-.32	-.28	.16	.28	-.64	-.84	.00	.28
Son	14	9	-.26	.70	.31	.30	-.88	.10	.36	1.30
Daughter	16	10	.04	-.09	.24	.29	-.44	-.67	.52	.49
Female respondents										
Father	43	20	.31	.10	.12	.19	.07	-.28	.55	.48
Father's brother	—	15	—	-.45	—	.21	—	-.87	—	-.03
Father's sister	—	10	—	-.63	—	.27	—	-.1.17	—	-.09
Father's sibling	33	—	-.50	—	.10	—	-.70	—	-.30	—
Mother	45	25	.63	.74	.13	.18	.37	.38	.89	1.10
Mother's brother	34	15	-.14	-.21	.12	.17	-.38	-.55	.10	.13
Mother's sister	33	17	-.24	-.08	.12	.17	-.48	-.42	.00	.26
Elder brother	35	15	.13	.03	.14	.19	-.15	-.35	.41	.41
Younger brother	41	18	.21	.01	.12	.11	-.03	-.21	.45	.23
Elder sister	30	21	.57	.78	.16	.12	.25	.54	.89	1.02
Younger sister	42	13	.34	.62	.13	.24	.08	.14	.60	1.10
Son	28	18	.10	-.03	.14	.24	-.18	-.51	.38	.45
Daughter	28	17	.25	.56	.17	.16	-.09	.24	.59	.88

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Lower	Washo	Upper
<b>Male respondents</b>										
Father	29	19	.42	.23	.14	.21	.14	.19	.65	.70
Father's brother	—	14	—	-.08	—	.20	—	-.48	.32	—
Father's sister	—	13	—	-.47	—	.28	—	-1.03	.09	—
Father's sibling	21	—	-.35	—	.18	—	-.71	—	.01	—
Mother	31	20	.79	.61	.16	.19	.47	.23	.99	1.11
Mother's brother	27	12	-.27	-.58	.13	.18	-.53	-.94	-.22	-.01
Mother's sister	28	11	-.12	-.14	.17	.21	-.46	-.56	.28	.22
Elder brother	23	11	-.19	.32	.17	.21	-.53	-.10	.74	.15
Younger brother	22	11	-.16	.30	.18	.25	-.52	-.20	.80	.20
Elder sister	28	9	.29	.03	.14	.27	.01	-.51	.57	.57
Younger sister	28	9	-.08	-.24	.14	.22	-.36	-.68	.20	.20
Son	13	9	.08	.27	.26	.27	-.44	-.27	.81	.60
Daughter	15	10	.22	.06	.28	.35	-.34	-.64	.76	.78
<b>Female respondents</b>										
Father	42	20	.13	.03	.15	.20	-.17	-.37	.43	.43
Father's brother	—	15	—	-.57	—	.21	—	-.99	.15	—
Father's sister	—	10	—	-.34	—	.34	—	-1.02	.34	—
Father's sibling	32	—	-.53	—	.10	—	-.73	—	.33	—
Mother	46	25	.53	.19	.12	.18	.29	-.17	.55	.77
Mother's brother	33	15	-.29	-.25	.13	.21	-.55	-.67	.17	-.03
Mother's sister	34	17	-.15	-.39	.13	.21	-.41	-.81	.03	.11
Elder brother	32	15	.38	-.10	.15	.18	.08	-.46	.26	.68
Younger brother	40	18	.35	.42	.13	.16	.09	.10	.74	.61
Elder sister	28	21	.37	.19	.15	.19	.07	-.19	.57	.67
Younger sister	40	13	.26	.24	.14	.21	-.02	-.18	.66	.54
Son	29	18	.14	.70	.14	.18	-.14	.34	1.06	.42
Daughter	29	17	.16	.90	.15	.22	-.14	.46	1.34	.46

TABLE 8

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits Lower		Upper	
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Washo
Male respondents										
Father	27	19	.52	.16	.19		.20	-.22	.84	.54
Father's brother	—	14	—	.23	.28		—	-.33	—	.79
Father's sister	—	13	—	-.53	.30		—	-1.13	—	.07
Father's sibling	19	—	-.35	.19	—		-.73	—	.03	—
Mother	28	20	.69	.34	.21		.37	-.08	1.01	.76
Mother's brother	26	12	.02	-.37	.17		-.32	-.79	.36	.05
Mother's sister	26	11	.09	.07	.20		-.23	-.33	.41	.47
Elder brother	21	11	.01	.34	.18		-.27	-.02	.29	.70
Younger brother	22	11	-.18	.22	.20		-.52	-.18	.16	.62
Elder sister	26	9	.38	-.13	.16		.06	-.67	.70	.41
Younger sister	26	9	-.16	-.20	.17		-.50	-.82	.18	.42
Son	12	9	-.08	.62	.23		-.54	.08	.38	1.16
Daughter	13	10	-.12	-.03	.18		-.48	-.75	.24	.69
Female respondents										
Father	42	20	.54	.28	.21		.26	-.14	.82	.70
Father's brother	—	15	—	-.35	.24		—	-.83	—	.13
Father's sister	—	10	—	-.60	.29		—	-1.18	—	-.02
Father's sibling	32	—	-.43	.09	—		-.61	—	-.25	—
Mother	46	25	.74	.54	.12		.50	.22	.98	.86
Mother's brother	33	15	-.24	-.36	.16		-.50	-.68	.02	-.04
Mother's sister	34	17	-.20	-.24	.20		-.42	-.64	.02	.16
Elder brother	32	15	.09	.06	.19		-.19	-.32	.37	.44
Younger brother	40	18	.07	-.14	.23		-.19	-.60	.33	.32
Elder sister	28	21	.28	.26	.15		-.02	-.08	.58	.60
Younger sister	40	13	.16	.60	.12		-.08	.20	.40	1.00
Son	29	18	.30	.45	.14		.02	.05	.58	.85
Daughter	29	17	.19	.82	.15		-.11	.44	.49	1.20

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Lower	Washo	Upper
Male respondents										
Father	27	19	.02	-.09	.18	.21	-.34	-.51		.38
Father's brother	—	14	—	-.03	—	.18	—	-.39		.33
Father's sister	—	13	—	-.70	—	.25	—	-1.20		-.20
Father's sibling	19	—	-.72	—	.15	—	-1.02	—		-.42
Mother	28	20	.26	.19	.19	.19	-.12	-.19		.64
Mother's brother	26	12	-.23	-.46	.12	.19	-.47	-.84		.01
Mother's sister	26	11	-.05	-.10	.16	.23	-.37	-.56		.27
Elder brother	22	11	-.02	.00	.17	.29	-.36	-.58		.32
Younger brother	22	11	.32	.23	.14	.24	.04	-.25		.60
Elder sister	24	9	.22	-.11	.14	.19	-.06	-.49		.50
Younger sister	26	9	.53	.39	.13	.28	.27	-.17		.79
Son	12	9	.49	.83	.35	.27	-.21	.29		1.37
Daughter	13	10	-.10	.45	.34	.28	-.78	-.11		1.01
Female respondents										
Father	38	20	-.10	-.16	.16	.21	-.42	-.58		.26
Father's brother	—	15	—	-.79	—	.14	—	-1.07		-.51
Father's sister	—	10	—	-.95	—	.21	—	-1.37		-.53
Father's sibling	31	—	-.67	—	.09	—	-.85	—		-.49
Mother	41	25	.12	.14	.12	.18	-.12	-.22		.36
Mother's brother	33	15	-.45	-.48	.11	.21	-.67	-.90		-.23
Mother's sister	34	17	-.58	-.47	.09	.17	-.76	-.81		-.40
Elder brother	31	15	.27	-.02	.11	.26	.05	-.54		.49
Younger brother	39	18	.50	.39	.13	.20	.24	-.01		.76
Elder sister	28	21	.22	.31	.15	.14	-.08	.03		.52
Younger sister	39	13	.55	.51	.13	.24	.29	.03		.81
Son	29	18	.67	.63	.11	.18	.45	.27		.89
Daughter	29	17	.59	.61	.16	.18	.27	.25		.91

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Lower	Washo	Upper
Male respondents										
Father	26	19	.29	.23	.17	.21	-.05	-.19	.63	.65
Father's brother	—	14	—	.17	—	.19	—	-.21	—	.55
Father's sister	—	13	—	-.59	—	.26	—	-1.11	—	-.07
Father's sibling	18	—	-.57	—	.16	—	-.89	—	-.25	—
Mother	28	20	.63	.54	.15	.20	.33	.14	.93	.94
Mother's brother	28	12	-.11	-.39	.15	.19	-.41	-.77	.19	-.01
Mother's sister	27	11	.11	.09	.16	.22	-.21	-.35	.43	.53
Elder brother	22	11	.07	.35	.19	.25	-.31	-.15	.45	.85
Younger brother	21	11	-.18	.18	.18	.16	-.54	-.14	.18	.50
Elder sister	26	9	.66	.00	.18	.31	.30	-.62	1.02	.62
Younger sister	26	9	-.02	-.13	.17	.26	-.36	-.65	.32	.39
Son	13	9	.03	.25	.24	.36	-.45	-.47	.51	.97
Daughter	14	10	-.18	.02	.20	.29	-.58	-.56	.22	.60
Female respondents										
Father	40	20	.21	.46	.15	.15	-.09	.16	.51	.76
Father's brother	—	15	—	-.48	—	.25	—	-.98	—	.02
Father's sister	—	10	—	-.33	—	.36	—	-1.05	—	.39
Father's sibling	31	—	-.17	—	.13	—	-.43	—	.09	—
Mother	43	25	.62	.72	.12	.14	.38	.44	.86	1.00
Mother's brother	32	15	-.17	-.24	.13	.19	-.43	-.62	.09	.14
Mother's sister	32	17	-.11	-.54	.14	.19	-.39	-.92	.17	-.16
Elder brother	32	15	.08	.20	.14	.19	-.20	-.18	.36	.58
Younger brother	37	18	.08	.28	.14	.18	-.20	-.08	.36	.64
Elder sister	27	21	.35	.25	.13	.17	.09	-.09	.61	.59
Younger sister	38	13	.11	.44	.13	.24	-.15	-.04	.37	.92
Son	27	18	.41	.33	.18	.21	.05	-.09	.77	.75
Daughter	27	17	.34	.30	.16	.21	.02	-.12	.66	.72

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Lower	Washo	Upper
Male respondents										
Father	25	19	.68	.07	.14	.21	.40	-.35	.96	.49
Father's brother	—	14	—	.21	—	.25	—	-.29	—	.71
Father's sister	—	13	—	.54	—	.19	—	.16	—	.92
Father's sibling	19	—	-.18	—	.17	—	-.52	—	.16	—
Mother	27	20	.71	-.30	.15	.17	.41	-.64	1.01	.04
Mother's brother	25	12	.40	.00	.17	.18	.06	-.36	.74	.36
Mother's sister	26	11	.01	.34	.15	.15	-.29	.04	.31	.64
Elder brother	22	11	.16	.14	.14	.24	-.12	-.34	.44	.62
Younger brother	20	11	-.22	-.03	.14	.27	-.50	-.57	.06	.51
Elder sister	25	9	.32	.77	.19	.25	-.06	.27	.70	1.27
Younger sister	25	9	-.24	-.51	.14	.19	-.52	-.89	.04	-.13
Son	12	9	-.30	-.16	.27	.32	-.84	-.80	.24	.48
Daughter	14	10	-.72	-.55	.17	.35	-1.06	-1.25	-.38	.15
Female respondents										
Father	37	19	.32	.58	.15	.23	.02	.12	.62	1.04
Father's brother	—	14	—	-.14	—	.21	—	-.56	—	.28
Father's sister	—	9	—	.26	—	.38	—	-.50	—	1.02
Father's sibling	30	—	-.31	—	.12	—	-.55	—	-.07	—
Mother	39	24	.91	.53	.14	.21	.63	.11	1.19	.95
Mother's brother	29	14	.26	.56	.15	.16	-.04	.24	.56	.88
Mother's sister	27	16	.04	-.10	.17	.21	-.30	-.52	.38	.32
Elder brother	27	14	.26	.36	.10	.19	.06	-.02	.46	.74
Younger brother	36	17	-.41	.09	.13	.19	-.67	-.29	-.15	.47
Elder sister	24	20	.16	.21	.15	.18	-.14	-.15	.46	.57
Younger sister	33	13	-.25	.14	.13	.19	-.51	-.24	.01	.52
Son	20	18	-.10	-.06	.19	.21	-.48	-.48	.28	.36
Daughter	21	17	-.10	-.36	.21	.20	-.52	-.76	.32	.04

TABLE 12

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Lower	Washo	Upper
Male respondents										
Father	21	19	-.19	.09	.15	.27	-.49	-.45	.11	.63
Father's brother	—	14	—	-.14	—	.24	—	-.62	—	.34
Father's sister	—	13	—	.33	—	.26	—	-.19	—	.85
Father's sibling	16	—	.36	—	.22	—	-.08	—	.80	—
Mother	22	20	-.32	-.12	.21	.16	-.74	-.44	.10	.20
Mother's brother	23	12	.14	-.48	.19	.28	-.24	-1.04	.52	.08
Mother's sister	23	11	-.32	.20	.15	.17	-.62	-.14	-.02	.54
Elder brother	19	11	.12	.20	.22	.25	-.32	-.30	.56	.70
Younger brother	16	11	.25	.32	.19	.26	-.13	-.20	.63	.84
Elder sister	22	9	.14	1.02	.20	.17	-.26	.68	.54	1.36
Younger sister	19	9	.16	-.13	.19	.27	-.22	-.67	.54	.41
Son	8	9	-.60	-.38	.18	.24	-.96	-.86	-.24	.10
Daughter	7	10	-.82	-.41	.30	.32	-1.42	-1.05	-.22	.23
Female respondents										
Father	31	19	-.02	-.35	.18	.17	-.38	-.69	.34	-.01
Father's brother	—	14	—	-.27	—	.23	—	-.73	—	.19
Father's sister	—	9	—	-.46	—	.42	—	-1.30	—	.38
Father's sibling	27	—	-.06	—	.15	—	-.36	—	.24	—
Mother	33	24	-.21	.11	.16	.19	-.53	-.27	.11	.49
Mother's brother	27	14	-.04	.26	.18	.26	-.40	-.26	.32	.78
Mother's sister	24	16	.06	.35	.17	.22	-.28	-.09	.40	.79
Elder brother	26	14	.12	-.08	.14	.26	-.16	-.60	.40	.44
Younger brother	31	17	.00	.15	.14	.16	-.28	-.17	.28	.47
Elder sister	22	20	.30	.29	.19	.23	-.08	-.17	.68	.75
Younger sister	29	13	.06	.15	.14	.17	-.22	-.19	.34	.49
Son	18	18	.26	.31	.22	.24	-.18	-.17	.70	.79
Daughter	19	17	-.09	.29	.20	.20	-.49	-.11	.31	.69

TABLE 13

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Lower	Washo	Upper
Male respondents										
Father	21	19	.26	-.08	.20	.19	-.14	-.46	.66	.30
Father's brother	—	14	—	-.05	—	.21	—	-.47	—	.37
Father's sister	—	13	—	.43	—	.28	—	-.13	—	.99
Father's sibling	17	—	-.06	—	.22	—	-.50	—	.38	—
Mother	22	20	-.23	-.09	.24	.21	-.71	-.51	.25	.33
Mother's brother	23	12	.38	-.27	.15	.31	.08	-.89	.68	.35
Mother's sister	24	11	-.18	.69	.16	.15	-.50	.39	.14	.99
Elder brother	17	11	.19	.03	.23	.27	-.27	-.51	.65	.57
Younger brother	16	11	-.18	.12	.24	.26	-.66	-.40	.30	.64
Elder sister	21	9	.36	.77	.18	.34	.00	.09	.72	1.45
Younger sister	18	9	.09	.01	.14	.18	-.19	-.35	.37	.37
Son	10	9	-.59	-.28	.28	.22	-.15	-.72	-.03	.16
Daughter	9	10	-.78	-.64	.26	.24	-.130	-.112	-.26	-.16
Female respondents										
Father	26	19	-.20	.13	.18	.17	-.56	-.21	.16	.47
Father's brother	—	14	—	-.21	—	.26	—	-.73	—	.31
Father's sister	—	9	—	.46	—	.44	—	-.42	—	1.34
Father's sibling	23	—	.22	—	.15	—	-.08	—	.52	—
Mother	28	24	-.29	.15	.19	.19	-.67	-.23	.09	.53
Mother's brother	24	14	.35	-.01	.14	.22	.07	-.45	.63	.43
Mother's sister	21	16	.60	.53	.20	.24	.20	.05	1.00	1.01
Elder brother	24	14	.26	-.13	.15	.22	-.04	-.57	.56	.31
Younger brother	29	17	.06	-.13	.15	.21	-.24	-.55	.36	.29
Elder sister	20	20	.20	.45	.18	.19	-.16	.07	.56	.83
Younger sister	26	13	.04	-.12	.12	.23	-.20	-.58	.28	.34
Son	15	18	-.61	.08	.18	.23	-.97	-.38	-.25	.54
Daughter	16	17	-.53	-.03	.21	.17	-.95	-.37	-.11	.31



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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Lower	Washo	Upper
Male respondent										
Father	23	19	.81	.70	.18	.24	.45	.22		1.18
Father's brother	—	14	—	.30	—	.19	—	-.08	—	.68
Father's sister	—	13	—	-.23	—	.19	—	-.61	—	.15
Father's sibling	17	—	-.08	—	.19	—	-.46	—	—	—
Mother	23	20	.61	.51	.20	.20	.21	.11		.91
Mother's brother	22	12	.48	.20	.11	.24	.26	-.28		.68
Mother's sister	22	11	.34	.38	.12	.17	.10	.04		.72
Elder brother	20	11	.18	.30	.19	.30	-.20	-.30		.90
Younger brother	17	11	-.49	.15	.14	.25	-.77	-.35		.65
Elder sister	23	9	.10	.33	.17	.24	-.24	-.15		.81
Younger sister	20	9	-.40	-.39	.12	.21	-.64	-.81		.03
Son	9	9	-1.06	-.53	.23	.23	-1.52	-.99		-.07
Daughter	8	10	-1.04	-.83	.27	.19	-1.58	-1.21		-.45
Female respondents										
Father	30	19	.45	.73	.17	.27	.11	.19		1.27
Father's brother	—	14	—	-.13	—	.24	—	-.61	—	.35
Father's sister	—	9	—	-.15	—	.40	—	-.95	—	.65
Father's sibling	24	—	-.30	—	.15	—	-.60	—		—
Mother	31	24	.88	.57	.13	.17	.62	.23		.91
Mother's brother	25	14	.10	.45	.16	.23	-.22	-.01		.91
Mother's sister	21	16	.19	.21	.16	.19	-.13	-.17		.59
Elder brother	24	14	.39	.16	.12	.20	.15	-.24		.56
Younger brother	28	17	-.33	-.26	.16	.16	-.65	-.58		.06
Elder sister	20	20	.31	.34	.14	.16	.03	.02		.66
Younger sister	27	13	-.27	-.13	.14	.22	-.55	-.57		.31
Son	16	18	-.29	.15	.22	.22	-.73	-.29		.59
Daughter	16	17	-.34	-.34	.25	.22	-.84	-.78		.10

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Navajo	Lower	Washo	Upper
Male respondents										
Father	19	19	-.65	-.40	.16	.22	-.97	-.84	-.33	.04
Father's brother	—	14	—	.10	—	.21	—	-.32	—	.52
Father's sister	—	13	—	.62	—	.20	—	.22	—	1.02
Father's sibling	15	—	.36	—	.20	—	-.04	—	.76	—
Mother	19	20	-.79	-.65	.23	.17	-1.25	-.99	-.33	-.31
Mother's brother	19	12	.17	.06	.22	.21	-.27	-.36	.61	.48
Mother's sister	19	11	-.11	.35	.17	.19	-.45	-.03	.23	.73
Elder brother	18	11	.28	.28	.21	.20	-.14	-.12	.70	.68
Younger brother	14	11	.25	-.26	.20	.16	-.15	-.58	.65	.06
Elder sister	20	9	-.12	.81	.19	.24	-.50	.33	.26	1.29
Younger sister	16	9	.09	-.01	.17	.32	-.25	-.65	.43	.32
Son	8	9	-.37	-.12	.18	.22	-.73	-.56	-.01	.32
Daughter	6	10	-.18	-.37	.44	.29	-1.06	-.95	.70	.21
Female respondents										
Father	21	19	-.34	-.26	.17	.22	-.68	-.70	.00	.18
Father's brother	—	14	—	.51	—	.16	—	.19	—	.83
Father's sister	—	9	—	.65	—	.35	—	-.05	—	1.35
Father's sibling	18	—	.16	—	.18	—	-.20	—	.52	—
Mother	23	24	-.44	-.38	.20	.18	-.84	-.74	-.04	-.02
Mother's brother	18	14	.29	.63	.21	.22	-.13	.19	.71	1.07
Mother's sister	16	16	.20	.59	.21	.13	-.22	.33	.62	.85
Elder brother	19	14	.26	.07	.18	.24	-.10	-.41	.62	.55
Younger brother	21	17	.24	.10	.19	.20	-.14	-.30	.62	.50
Elder sister	15	20	-.29	.38	.16	.20	-.61	-.02	.03	.78
Younger sister	19	13	.10	.20	.18	.10	-.26	.00	.46	.40
Son	11	18	-.42	-.68	.30	.13	-1.02	-.94	.18	-.42
Daughter	11	17	-.52	-.72	.27	.15	-1.06	-1.02	.02	-.42

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

Relatives	Number of Respondents		Mean		Standard Error of the Mean		95 Per Cent Confidence Limits			
	Navajo	Washo	Navajo	Washo	Navajo	Washo	Lower Navajo	Lower Washo	Upper Navajo	Upper Washo
Male respondents										
Father	15	19	-.83	-.36	.17	.19	-1.17	-.74	-.49	.02
Father's brother	—	14	—	.39	—	.21	—	-.03	—	.81
Father's sister	—	13	—	.69	—	.14	—	.41	—	.97
Father's sibling	12	—	.37	—	.19	—	-.01	—	.75	—
Mother	16	20	-1.07	-.65	.14	.17	-1.35	-.99	-.79	-.31
Mother's brother	15	12	.41	.49	.17	.18	.07	.13	.75	.85
Mother's sister	17	11	.09	.43	.18	.19	-.27	.05	.45	.81
Elder brother	14	11	-.27	.27	.28	.21	-.83	-.15	.29	.69
Younger brother	11	11	.57	-.36	.21	.20	.15	-.76	.99	.04
Elder sister	16	9	-.31	.86	.15	.24	-.61	.38	-.01	1.34
Younger sister	12	9	.53	-.30	.13	.15	.27	-.60	.79	.00
Son	6	9	-.51	-1.00	.22	.15	-.95	-1.30	-.07	-.70
Daughter	4	10	.17	-1.14	.64	.16	-1.11	-1.46	1.45	-.82
Female respondents										
Father	17	19	-.34	-.25	.23	.20	-.80	-.65	.12	.15
Father's brother	—	14	—	.84	—	.20	—	.44	—	1.24
Father's sister	—	9	—	.76	—	.32	—	.12	—	1.40
Father's sibling	16	—	.44	—	.18	—	.08	—	.80	—
Mother	19	24	-.66	-.51	.19	.18	-1.04	-.87	-.28	-.15
Mother's brother	17	14	.52	.52	.14	.20	.24	.12	.80	.92
Mother's sister	14	16	.54	.61	.20	.14	.14	.33	.94	.89
Elder brother	15	14	.01	-.10	.20	.21	-.39	-.52	.41	.32
Younger brother	16	17	.16	.03	.18	.21	-.20	-.39	.52	.45
Elder sister	11	20	.06	.32	.27	.18	-.48	-.04	.60	.68
Younger sister	16	13	-.17	-.06	.16	.18	-.49	-.42	.15	.30
Son	9	18	-.77	-.67	.19	.17	-1.15	-1.01	-.39	-.33
Daughter	9	17	-.72	-.67	.15	.17	-1.02	-1.01	-.42	-.33

TABLE 17  
SIGNIFICANT DIFFERENCES BETWEEN WASHO ROLES<sup>a</sup>

Relative	Father's Brother	Father's Sister	Mother	Mother's Brother	Mother's Sister	Elder Brother	Younger Brother	Elder Sister	Younger Sister	Son	Daughter	Total
Father	9	11	0	8	9	1	7	8	6	9	11	79
Father's brother		2	13	0	3	5	4	7	8	7	11	69
Father's sister			19	0	1	3	4	3	6	9	13	71
Mother				18	13	4	10	14	11	10	12	124
Mother's brother					2	2	4	3	5	10	12	64
Mother's sister						2	8	4	12	12	15	81
Elder brother							2	2	2	8	10	41
Younger brother								4	0	1	8	52
Elder sister									4	10	13	72
Younger sister										2	2	58
Son											0	78
Daughter												107

<sup>a</sup> The figure in a cell records the number of questions (out of a total of 32, 16 for each sex) of the role profile test in which the differences between the means for a pair of relatives are significant.

TABLE 18  
SIGNIFICANT DIFFERENCES BETWEEN NAVAJO ROLES <sup>a</sup>

Relative	Father's Sibling	Mother	Mother's Brother	Mother's Sister	Elder Brother	Younger Brother	Elder Sister	Younger Sister	Son	Daughter	Total
Father	24	2	11	11	5	17	3	18	11	12	114
Father's sibling		25	1	3	13	6	11	6	10	9	108
Mother			23	21	14	22	11	22	14	16	170
Mother's brother				0	3	7	6	8	7	9	75
Mother's sister					2	5	2	6	7	8	65
Elder brother						7	0	6	6	8	64
Younger brother							8	0	3	1	76
Elder sister								6	8	8	63
Younger sister									2	1	75
Son										0	68
Daughter											72

<sup>a</sup> The figure in a cell records the number of questions (out of a total of 32, 16 for each sex) of the role profile test in which the differences between the means for a pair of relatives are significant.

are clearly emphasized in role behavior as compared with members of the matrilineage of the same generation.

**FATHER AND CHILDREN:** The father, according to Aberle, is both an authority and affectionate figure, and he is the primary source of instruction for his sons. The role profile test data agree with this description. For male respondents, the father is the principal disciplinarian. He scores slightly below the mother as an affectionate, cooperative, and helpful relative, but exceeds all others in these respects except in

TABLE 19  
SIGNIFICANT DIFFERENCES BETWEEN CORRESPONDING ROLES OF THE NAVAJO AND WASHO<sup>a</sup>

Relative	Respondents	
	Male	Female
Father	1	0
Father's brother <sup>b</sup>	4	0
Father's sister <sup>b</sup>	0	0
Mother	1	0
Mother's brother	0	0
Mother's sister	1	1
Elder brother	0	0
Younger brother	1	0
Elder sister	3	0
Younger sister	1	0
Son	0	0
Daughter	0	0

<sup>a</sup>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.

<sup>b</sup>The roles of father's brother and father's sister, Washo, were compared to the role of father's sibling, Navajo.

the matter of cooperation (question 6) where he is tied by younger brother and exceeded by elder brother. It is somewhat surprising to find that the mother scores slightly higher than the father in teaching and cooperation for male informants; however, the differences are not great. For female respondents, father exceeds all relatives except mother as a disciplinarian and in being affectionate and helpful. Only mother, younger sister, and elder sister exceed father in cooperation.

Aberle discussed at some length the relative disciplinary aspects of the roles of mother's brother and father. His informants said that the primary responsibility for socialization and discipline rests with the parents. The father's disciplinary role is not limited by the fact that he is of a different sib than his children. Furthermore, Aberle's analysis of

Navajo biographical materials revealed few cases of disciplining at the hands of the mother's brother. Another point of view is given by Kluckhohn and Leighton who said that the mother's brother is a severe disciplinarian and assumes many of the disciplinary and instructional functions performed by the father in white American society (Kluckhohn and Leighton, 1946, p. 58; Leighton and Kluckhohn, 1947, p. 101).

The data of the role profile test agree with Aberle's interpretation. The questions having to do with discipline and teaching are: 1 (to boss), 2 (to teach), 13 (to criticize), and 14 (to punish). Father scores well above mother's brother on questions 1 and 2 for both male and female informants; and the differences are significant in three of the four cases. Father scores higher than mother's brother on question 14 for both men and women, but neither of the differences is significant. Mother's brother scores higher than father on question 13, but the differences are not significant. On balance, the role profile test shows the father to be much more important to an individual as an authority figure than the mother's brother.

The merits of the role profile test are clearly demonstrated in the matter of the roles of mother's brother and father where outstanding authorities disagree. It is difficult to decide between the views of Aberle and Kluckhohn and Leighton. Aberle depended principally upon one informant and Navajo biographical materials; Kluckhohn and Leighton relied on published material, unpublished field notes of themselves and of others, and considerable intensive work among the Navajo. For all these authorities, interpretation of the evidence was a factor of unknown force that the reader cannot appraise. It is possible that another investigator would interpret the same data differently. However, there is little problem of interpretation involved in analyzing the data of the role profile test. The data consist of statements of 93 respondents, and the analysis involves applying mathematics to the data. Any investigator would derive similar results from the data. Furthermore, the results of the role profile test give a clear answer to the question of the relative importance of the father and mother's brother as disciplinarian and instructor.

The picture of the father's role that can be derived from the role profile test does not entirely take into account the fact of divorce. Divorce is fairly frequent, even among couples with children. Of our 93 respondents, nine reported fathers who had divorced or deserted their wives, and 12 reported fathers who were permanently absent for unspecified reasons. We assume that half of the latter 12 are men who left their families (the other half may be men who died while the in-

formant was a small child). Thus, about 15 of our respondents (16%) have divorced fathers.

This raises the question as to whether the role of father as derived from the role profile test data needs to be qualified because of divorced fathers. Although some divorced fathers maintain no relations with their ex-wives and children, and informants therefore do not include them in the role profile test, other divorced fathers do maintain relations and are included. Of the nine cases of fathers definitely known to have divorced or deserted their families (that is, men known to be alive), seven were included in the test. Of the 12 fathers absent for unknown reasons (six of whom were assumed to be divorced and the others dead), three were included in the test. Thus, of 15 known or assumed cases of divorced fathers, eight or nine (seven plus half of three) were included in the test, leaving only six or seven that were excluded. Inspection of the responses of informants who included divorced fathers in their tests shows that although a few ranked their fathers lower than normal on questions regarding affection, teaching, and authority, the majority ranked their divorced fathers much as other fathers were ranked. Because only 8 per cent of the respondents excluded divorced fathers from the test and there is evidence to suggest that divorced fathers, when they are ranked, do not always diverge appreciably from the rankings of non-divorced fathers, we conclude that the qualitative features of the role of father as revealed by the role profile test do not have to be appreciably modified because of divorce. Of course, divorce itself is not revealed by the role profile test; this aspect of role behavior came to light in the genealogical interviewing.

When the father is present or when he maintains relations with his children even though absent, the intensity of role behavior of mother, father, and children emphasizes the nuclear family despite other relatives, such as mother's brother, mother's sister, and mother's father, who may be members of the same extended family. When the father is absent either because of divorce or early death (seven respondents did not include their fathers in the test because of death), families assume a decidedly matrilineal character. Unmarried informants with absent fathers reported that they were living in residential units with mothers (16 cases), mother's mothers (7), mother's sisters (6), mother's brothers (5), and stepfathers (3). Father's relatives were mentioned by only two respondents. Children almost always live with their mother if she is alive, although we have a case of children who live with a mother's relative and not with the mother and a stepfather. Thus, divorce and/or death give special emphasis to matrilineal relatives as compared with



patrilineal relatives. Families without fathers are a minority, however.

**ELDER BROTHER AND YOUNGER BROTHER:** Aberle (1961) said that the relationship of brothers was positively toned and that the elder brother had some authority over his younger brother. His informants considered this authority to be weak, but he quoted a personal communication from Gladys Reichard, another outstanding authority on the Navajo, as saying that it could be very strong. The data from the role profile test permit us to deal with the roles of elder and younger brother in considerably more detail. With regard to the authority of the elder brother over the younger and the apparently different judgments of Aberle and Reichard, two comparisons are relevant. First, we can compare the roles of elder and younger brother (male respondents) with each other, and this shows that the two roles differ principally in authority. The role of elder brother is significantly distinct from that of younger brother on questions 1 (to give orders), 2 (to teach), 3 (to help), and 14 (to punish). Thus, from the point of view of a male ego, elder brother ranks significantly higher than younger brother in matters involving authority.

Second, we can compare elder brother with the other relatives that were included in the role profile test. This comparison (for male respondents) shows elder brother generally to rank significantly lower than mother in authority, lower than father, although not significantly so, and to be roughly tied with elder sister. Elder brother generally exceeds all other relatives in authority although the differences are slight in many cases. Thus, in comparison with one's most important relatives, the relatives of the nuclear family, elder brother does not rank particularly high in authority; and in comparison with all relatives, he exceeds such relatives as mother's brother and mother's sister, but not significantly. We may conclude, therefore, that an elder brother scores significantly higher in authority than a younger brother for a male ego (this supports Reichard's interpretation), that within the context of the nuclear family his authority over ego is much less than mother and father and about the same as elder sister (this tends to support Aberle), and that he exceeds slightly other potentially authoritarian relatives outside the nuclear family. It is worth noting that on question 3 (to help) elder brother scores significantly higher than father's siblings but not mother's siblings, a fact that emphasizes the relative importance of mother's relatives as compared with father's relatives.

Younger brother, as might be expected, carries little authority over a male ego. Father, mother, and elder sister score significantly higher than younger brother on authority, as does elder brother. Outside the

nuclear family, mother's brother and mother's sister score higher than younger brother on questions 1, 2, 3, and 14, and several of the differences are significant. Father's sibling, on the other hand, scores below younger brother on authority questions.

Elder brother is a more affectionate relative than younger brother for a male ego. He exceeds younger brother on question 4 (to sympathize) and question 5 (to like) and ranks lower on question 16 (to reject). None of these differences are significant. In comparison with all relatives, neither elder nor younger brother are particularly noteworthy in affection. Both are exceeded by mother and father, and the majority of differences are significant. Elder brother is very similar to elder sister as regards affection, and he generally exceeds son, daughter, and younger sister, although none of the differences is significant. Younger brother is very similar to younger sister in affection for a male ego. Younger brother does not differ appreciably from daughter or from son on questions 4 and 5. However, a younger brother is much more likely to reject a man than is a man's son, and the difference is significant. Younger brother is less affectionate than an elder sister and significantly more likely to reject a male ego.

**ELDER SISTER AND YOUNGER SISTER:** Aberle (1961) wrote that the bond between sisters was fairly strong, that they cooperated with one another in household tasks, and that the elder sister had authority of unknown scope over the younger. The role profile test shows that the relationship between the roles of elder and younger sister resembles the relationship between elder and younger brother. The principal differences between the two sister roles for a female ego are in authority. Elder sister scores higher than younger sister on questions 2 (to teach), 3 (to help), 13 (to criticize), and 14 (to punish). All differences are significant except for question 13. Within the nuclear family, elder sister is clearly exceeded in authority and affection for female egos only by the mother. In cooperation, elder sister is effectively tied with mother and scores higher than other relatives. Father generally scores slightly higher than elder sister for a female ego in authority and affection, but the only significant distinction between the two roles is on question 2 (to teach) where father scores higher. Although the roles of mother's siblings differ considerably from the role of elder sister, the differences are not as great as between the role of father's sibling and elder sister.

Within the nuclear family, the role of younger sister resembles those of daughter and son, as well as that of younger brother for female respondents. The only significant difference in these comparisons is on

question 13 (to criticize) where younger sister is significantly more critical than son. Younger sister differs from older members of the nuclear family in predictable ways: from father and elder brother in authority; and from mother in most areas of behavior but principally in authority. On questions 4 and 5 (affection) only mother is significantly distinct from younger sister in the nuclear family; and on question 6 (to cooperate), younger sister is not significantly distinct even from mother although scoring below her. Outside the nuclear family, the role of younger sister for female respondents is quite distinct from the roles of the siblings of either parent but resembles more the roles of mother's siblings than father's.

**BROTHER AND SISTER:** Aberle (1961) said that brothers and sisters had claims upon one another in the economic realm, that the relationship could be highly ambivalent or even negative owing to tension between conflicting commitments to the unilineal group and to the family of procreation, and that the elder sibling had authority over the younger. The authoritarian aspect of the relationship is apparent in the role profile test data: elder siblings do have authority over opposite-sexed younger siblings. Help and cooperation are also qualities of the roles of opposite-sexed siblings. The relative ages of sisters and a male ego make a difference, although not a significant one, in these qualities. Elder sisters are considerably more helpful, cooperative, and generally supportive than younger sisters. These differences are less pronounced between elder and younger brothers for female egos.

The aspect of the relationship between opposite-sexed siblings that Aberle characterized variously as ambivalent, tense, negative, bipolar, and other phrases indicating a situation wherein a man has conflicting obligations between his matrilineage and his family of procreation is not readily seen in the role profile test data, for opposite-sexed siblings, except for younger sister, score moderately on affection. On question 5 (to like), elder brother and younger brother (female respondents) score lower than mother, father, elder sister, and younger sister, equal son and daughter, and exceed all other relatives; elder sister (male respondents) exceeds all relatives except mother and father, but younger sister is tied with son and otherwise scores lower than all relatives except father's siblings.

However, the ambivalence that is said to characterize the roles of opposite-sexed siblings, as well as the roles of mother's brother and sister's children (also due to conflicting obligations between the unilineal group and the family of procreation) can be seen in the role profile test data by examining the responses to question 3 (to help) and question

15 (to refuse help). A role in which behavior is consistent with regard to giving help would be characterized by differences in scores on the two questions, that is, a relative scoring high on question 3 should score low on question 15, and vice versa. If there is ambivalence in role behavior, an indication of this might be approximately equal scores (either high or low) on both questions. In this context, we can define "approximately equal" as those means that are separated by a figure of 25 or less. When we examine the data, we find that mother's brother, elder brother, son, and mother's sister (the latter for female respondents only) are ambivalent relatives.

With the exception of younger brother, these facts generally accord with an explanation that an individual's male relatives of his natal family and lineage or just of his lineage who live in another family will be ambivalent. Mother's brother, elder brother, younger brother, and son are usually in this situation after their marriage. The corresponding female relatives, mother's sister, elder sister, younger sister, and daughter are not in the same situation owing to the frequency of the matrilocal extended family; they may remain members of ego's family after marriage, whereas male family members do not. Thus, with the exception of mother's sister for female respondents, female relatives are not ambivalent.

Ambivalence also exists among the Washo, for it is potentially an aspect of all role behavior just as are affection, cooperation, and many other qualities. Among the bilateral Washo, ambivalence is most likely to arise in the conflict of obligations between the natal family and the family of procreation. Thus, all siblings, sons, and daughters are an individual's principal potentially ambivalent relatives. Examination of the Washo data reveals that the ambivalent relatives for a man are his mother's brother, elder brother, and son, and for a woman, her elder sister, younger sister, younger brother, and daughter. Ambivalence among the Washo is almost equally divided between male and female relatives; among the Navajo, it is largely confined to male relatives. Matrilineages and matrilocality tend to minimize ambivalence for Navajo women and to strengthen it for men. Among the Washo, ambivalence in role behavior affects men and women roughly equally.

The foregoing comparisons of the role profile test data with Aberle's statements show substantial agreement between the two independent evaluations of Navajo role behavior. The only areas of behavior in which Aberle dealt in which the role profile test does not supply corroboration, clarification, or elaboration are in rather special aspects of role behavior, such as participation in marriage arrangements. The role

profile test does not deal with such particular activities except to the extent that respondents may silently weigh them in making judgments about "cooperation," "helping," and the like.

This illustrates a more general feature of the role profile test: it does not deal with the content of roles. Respondents are asked, for example, the extent to which a particular relative teaches or helps them; but the test does not require them to say what is taught or how they are helped. The content of roles is important in distinguishing among some of the roles within the nuclear family. The role profile test shows very few distinctions for either the Washo, the Mohave, or the Navajo between opposite-sexed nuclear family members of the same generation (or relative age, in the case of siblings). However, the roles of mother and father, for example, are ordinarily quite different, but the difference lies in content rather than in the qualitative aspects of role behavior.

The agreement of the role profile test data with Aberle's statements supports the validity of the test. Furthermore, the test was able to provide considerable clarification and elaboration in a number of areas. The versatility of the test was demonstrated in the matter of ambivalence in role behavior. Although this aspect of role behavior was not probed explicitly by any question, we were able to deal with ambivalence by comparing the responses on two questions. We note, however, that the role profile test yields data amenable to hundreds of comparisons and that this particular comparison would not have occurred to us just from handling the role profile test data. Insights and leads from other sources must be used to supplement the role profile test, and any similar technique.

#### VALIDITY: COMPARISON OF THE NAVAJO AND THE WASHO

We expected to find that differences in social structure would result in differences in role behavior between corresponding relatives of the Washo and the Navajo. In general, the matrilineality and matrilocality of the Navajo should make the roles of mother, mother's siblings, sisters, and daughter more important and the roles of father, father's siblings, brothers, and son less important to respondents than are the corresponding roles in the bilateral and generally bilocal Washo. "Importance" is defined as a relative's scoring relatively high on all questions except those that deal with rejection (questions 15 and 16), and we usually added the requirement that at least one of the differences in means should be statistically significant.

Two kinds of comparisons can be made. We can illustrate these with the role of mother's brother. First, we can directly compare Navajo

mother's brother with Washo mother's brother. In this case, we would expect Navajo mother's brother to be more important than Washo mother's brother, that is, the role profile of the former should lie generally above that of the latter, with at least one of the differences in means being statistically significant. Second, we can take pairs of relatives within each society, compare the roles of the members of each pair with one other within each society, and then compare the differences derived from this procedure between societies. Thus, using the example of mother's brother, we compare mother's brother and father's brother (or father's sibling for the Navajo) within each society and then compare the derived differences between societies. In the case of mother's brother and father's brother, we should expect that the former would be more important among the matrilineal Navajo and that both would be roughly equal in importance among the bilateral Washo.<sup>1</sup> In order to hold the text figures to a reasonable number, we will deal only with the first kind of comparison. Interested readers can plot means of relatives (given in tables 1-16) on transparent paper and make other comparisons themselves. Hundreds of comparisons can be made; only a few can be given here.

The results of the comparisons of corresponding Washo and Navajo roles are as follows.

**FATHER:** For male respondents, the role profiles of father are generally similar (fig. 4). However, Washo fathers score significantly higher on question 2 (to teach), generally higher on the first three questions which deal with authority, and slightly lower on the last two, which involve rejection. Thus, we can say that father is a somewhat more important figure for Washo men than for Navajo men. For women, the role profiles are almost identical (fig. 5).

**FATHER'S BROTHER (WASHO) AND FATHER'S SIBLING (NAVAJO):** The greatest difference between corresponding roles is between Washo father's

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<sup>1</sup> Having raised this issue, we will summarize the data. The role of mother's brother is more important than father's sibling for Navajo men; however, none of the differences between means is significant. Among the Washo, father's brother is more important than mother's brother for men, but, again, none of the differences between means is significant. The role of mother's brother is more important than father's sibling for Navajo women, and there is one significant difference between means. Among Washo women, mother's brother is more important than father's brother, but none of the differences between means is significant. In short, the Navajo data are about what we would expect except that only one difference between means is significant. Among the Washo, there were no significant differences between means as we would expect. Mother's brother was more important to women, and father's brother, to men, a result somewhat different from our expectations, but one not inconsistent with a bilateral organization.

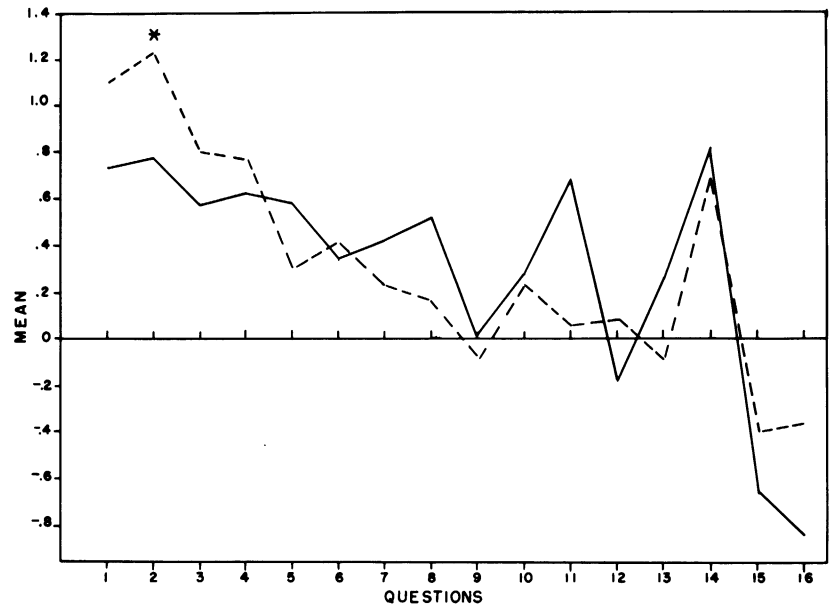


FIG. 4. Role profiles of father, male respondents. Solid line, Navajo; broken line, Washo. An asterisk denotes a significant distinction between the means for a particular question.

brother and Navajo father's sibling for men (fig. 6). Father's brother is a much more important relative for Washo men than is father's sibling

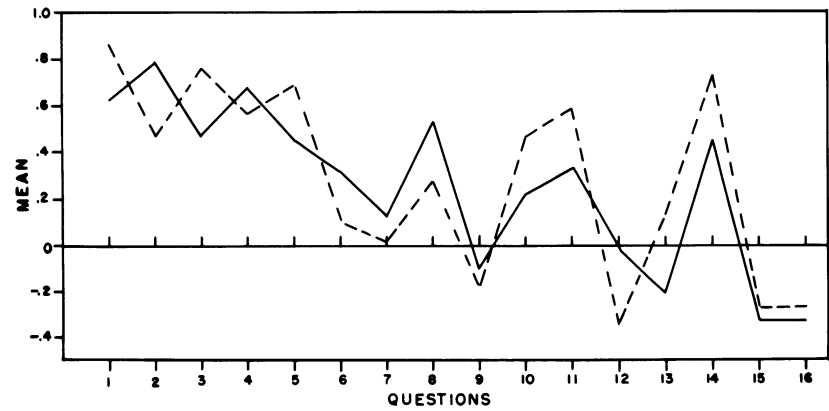


FIG. 5. Role profiles of father, female respondents. Solid line, Navajo; broken line, Washo.

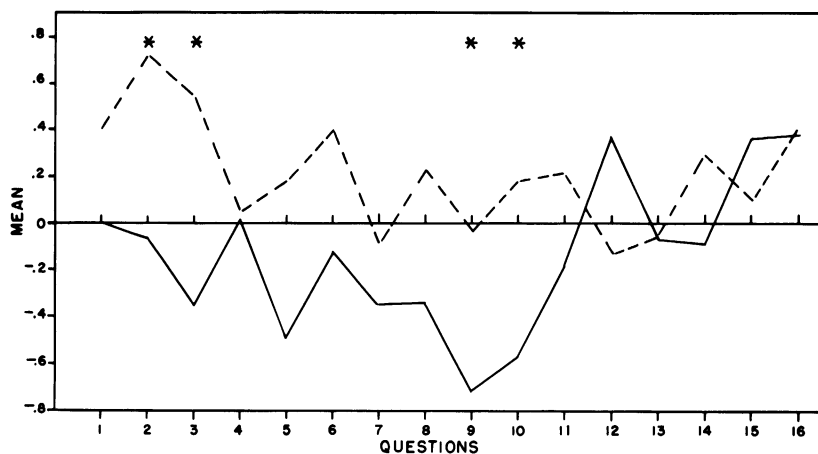


FIG. 6. Role profiles of father's sibling, Navajo, solid line, and father's brother, Washo, broken line. Male respondents. An asterisk denotes a significant distinction between the means for a particular question.

for Navajo men. Significant differences occur between means on question 2 (to teach), 3 (to help), 9 (to obey), and 10 (to want approval). For women, however, the role profiles are very similar (fig. 7).

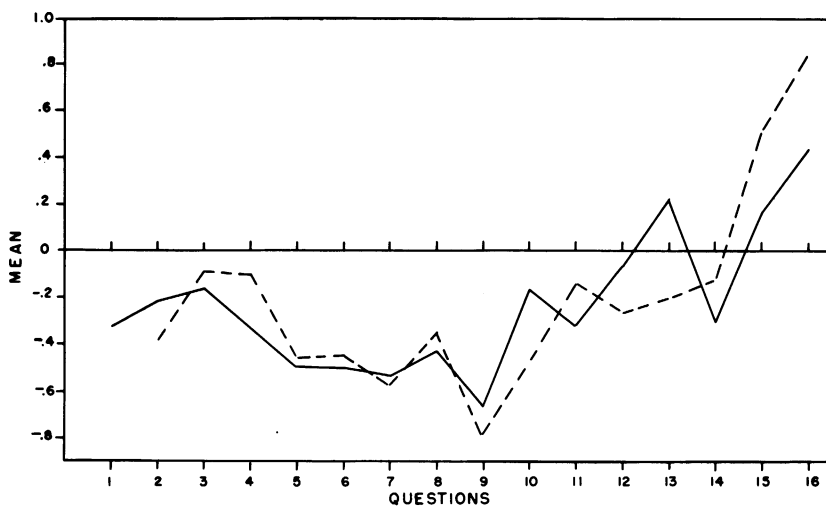


FIG. 7. Role profiles of father's sibling, Navajo, solid line, and father's brother, Washo, broken line. Female respondents.



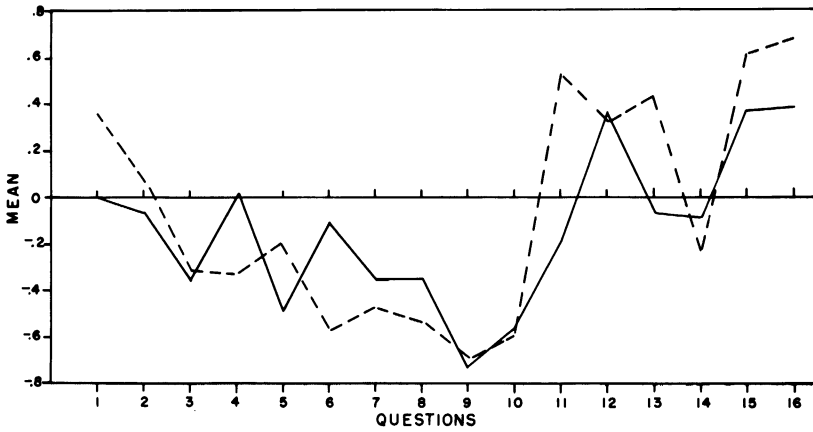


FIG. 8. Role profiles of father's sibling, Navajo, solid line, and father's sister, Washo, broken line. Male respondents.

FATHER'S SISTER (WASHO) AND FATHER'S SIBLING (NAVAJO): There is very little difference between the role profiles of Washo father's sister and Navajo father's sibling for either men or women (figs. 8 and 9).

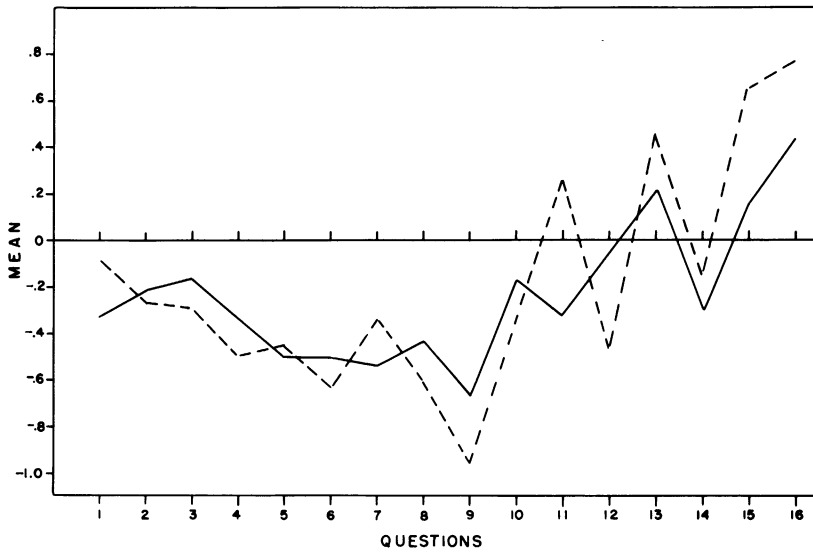


FIG. 9. Role profiles of father's sibling, Navajo, solid line, and father's sister, Washo, broken line. Female respondents.

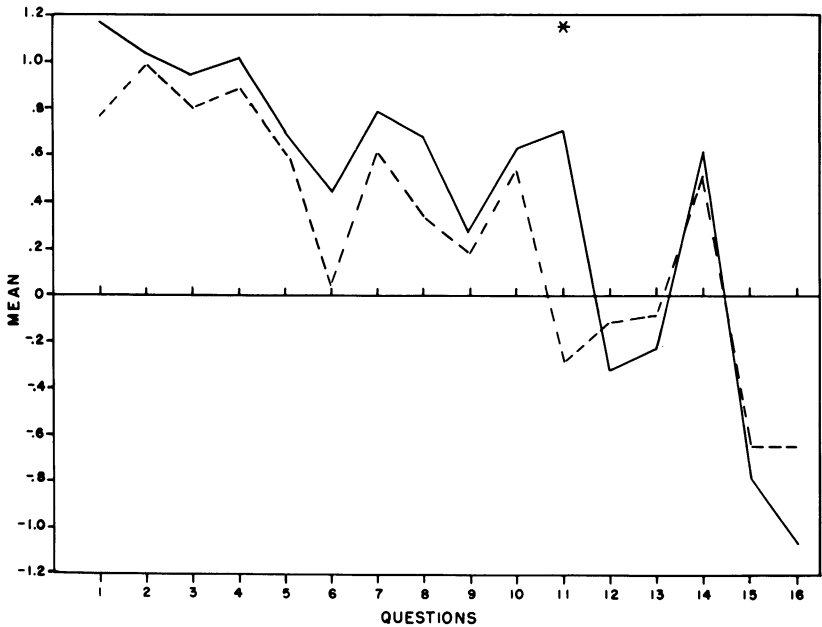


FIG. 10. Role profiles of mother, male respondents. Solid line, Navajo; broken line, Washo. An asterisk denotes a significant distinction between the means for a particular question.

**MOTHER:** The role profile of mother for Navajo men generally lies slightly above that for Washo men (fig. 10) with a significant difference on question 11 (to suspect wrongdoing). For women, the role profiles of mother are very similar (fig. 11).

**MOTHER'S BROTHER:** For male respondents, Navajo mother's brother scores higher than Washo mother's brother on all questions except number 16 (fig. 12). Although most of the differences in means are small and none is significant, mother's brother appears to be more important to Navajo men than to Washo men. For women, the role profiles of mother's brother are very similar with absolutely no tendency for Navajo mother's brother to be more important than Washo mother's brother (fig. 13).

**MOTHER'S SISTER:** Washo mother's sister is a more critical relative than Navajo mother's sister (questions 11, 12, and 13) for men, with a significant difference between means on question 13, and she is more likely to reject a sister's son (questions 15 and 16) although neither of these latter differences is significant (fig. 14). Otherwise, the two

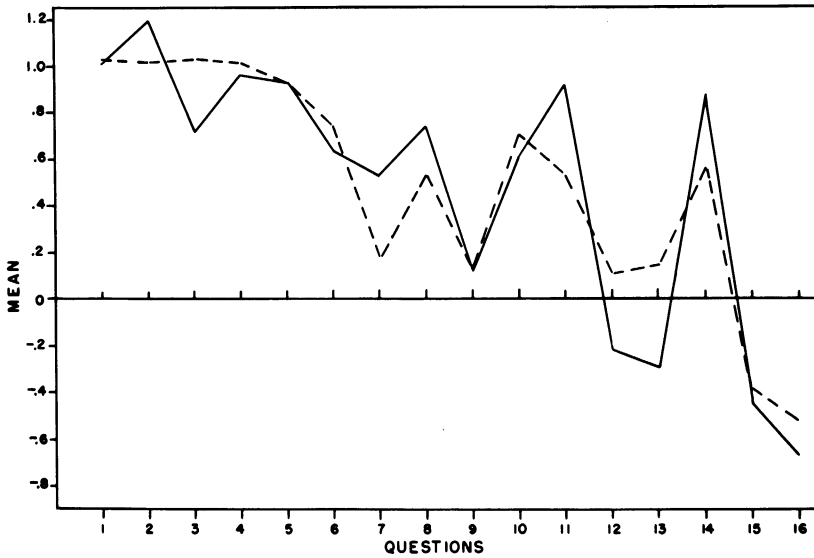


FIG. 11. Role profiles of mother, female respondents. Solid line, Navajo; broken line, Washo.

roles are very similar. In terms of importance, the more critical role of the Washo mother's sister is somewhat balanced by her greater readiness to reject a sister's son; but the significant difference on question 13 tips the scales in favor of the greater importance of mother's sister among the Washo. For women, Washo mother's sister scores

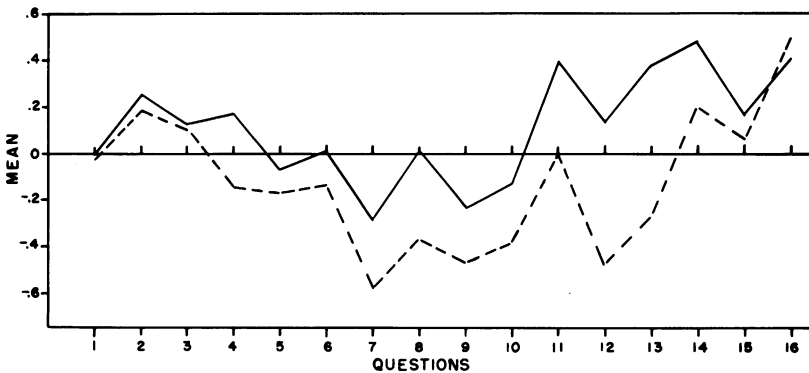


FIG. 12. Role profiles of mother's brother, male respondents. Solid line, Navajo; broken line, Washo.

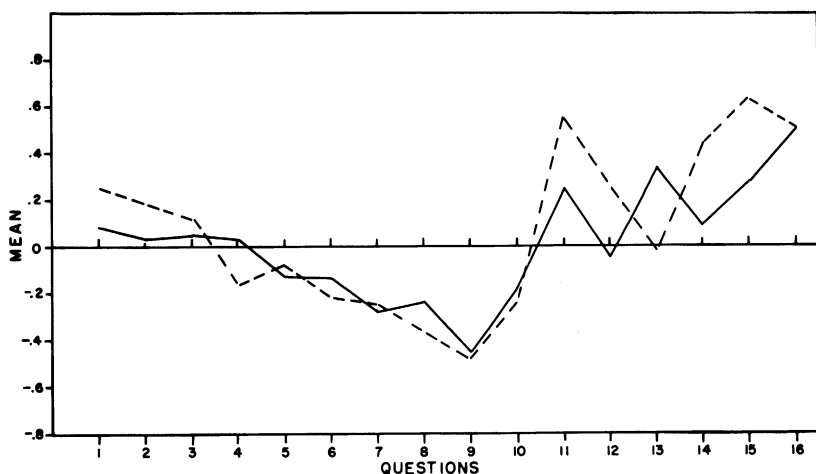


FIG. 13. Role profiles of mother's brother, female respondents. Solid line, Navajo; broken line, Washo.

higher than Navajo mother's sister on question 1 and significantly higher on question 2 (fig. 15). Thus Washo mother's sister is a more important relative for women than Navajo mother's sister. Mother's sister is therefore a more important relative for the Washo than for the Navajo for both men and women. This is directly opposite to our assumptions regarding the role behavior of corresponding Washo and Navajo relatives. Mother's sister is the only role that departs to this

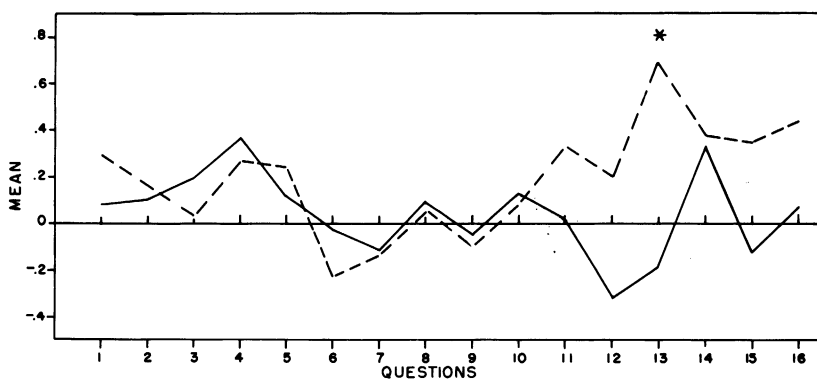


FIG. 14. Role profiles of mother's sister, male respondents. Solid line, Navajo; broken line, Washo. An asterisk denotes a significant distinction between the means for a particular question.

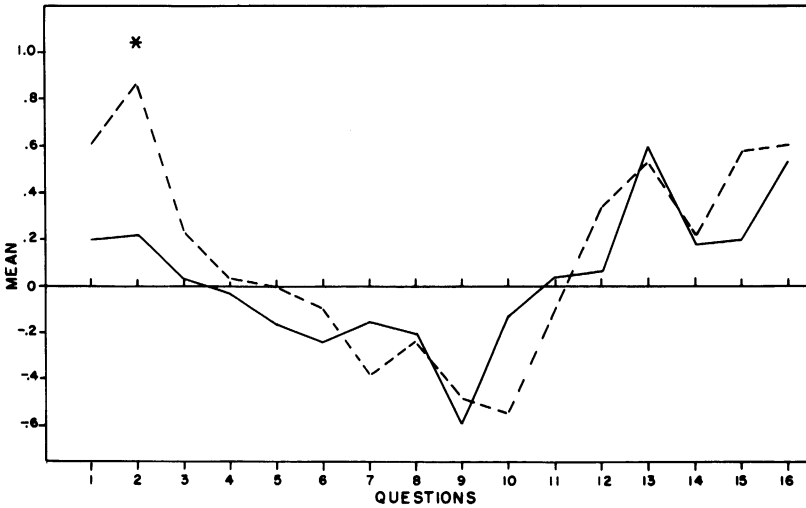


FIG. 15. Role profiles of mother's sister, female respondents. Solid line, Navajo; broken line, Washo. An asterisk denotes a significant distinction between the means for a particular question.

extent from what one would expect in the light of Navajo and Washo social structure.

ELDER BROTHER: There is a slight tendency for elder brother to be a more important relative to Washo men than to Navajo men, but the differences between means are small and are not significant on any question (fig. 16). For female respondents, elder brother scores higher in authority among the Washo and in dependence among the Navajo; however, the differences are slight and not significant (fig. 17).

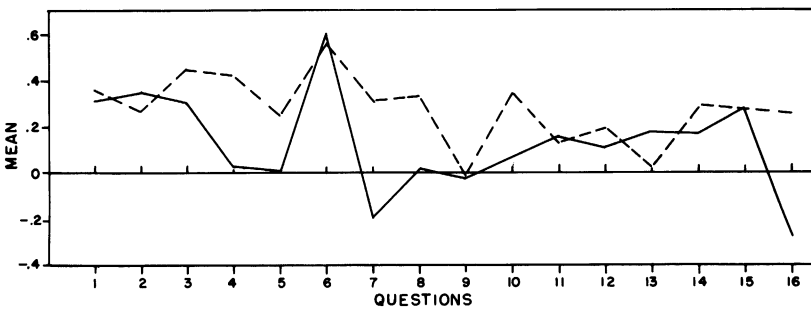


FIG. 16. Role profiles of elder brother, male respondents. Solid line, Navajo; broken line, Washo.

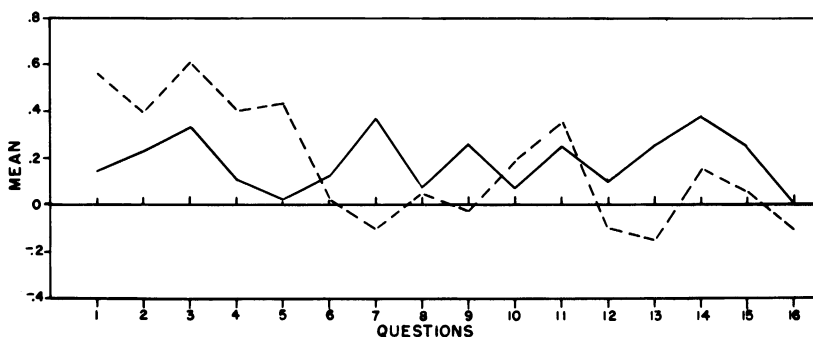


FIG. 17. Role profiles of elder brother, female respondents. Solid line, Navajo; broken line, Washo.

**YOUNGER BROTHER:** Younger brother is a more important relative among the Washo than among the Navajo for men (fig. 18). The difference between means is significant on question 16: Navajo younger brothers are much more likely to reject an elder brother than are Washo younger brothers. For women, the role of younger brother is quite similar in both societies (fig. 19).

**ELDER SISTER:** After father's brother, the greatest difference between corresponding roles is between Washo elder sister and Navajo elder sister for men (fig. 20). Navajo elder sister is more important in all aspects of behavior except criticism and disapproval (questions 11-13)

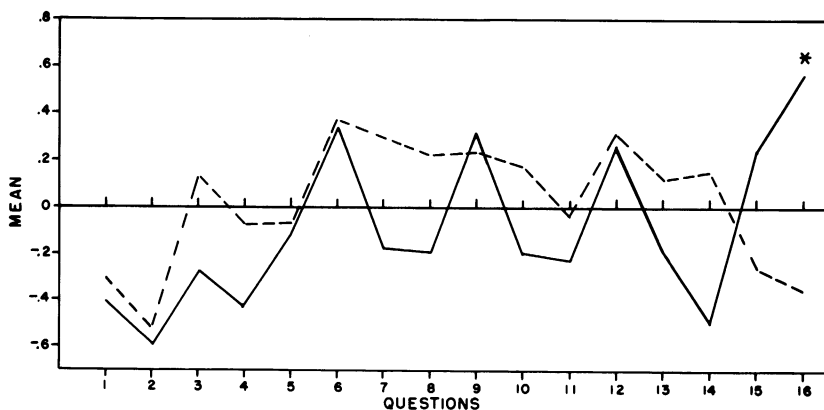


FIG. 18. Role profiles of younger brother, male respondents. Solid line, Navajo; broken line, Washo. An asterisk denotes a significant distinction between the means for a particular question.

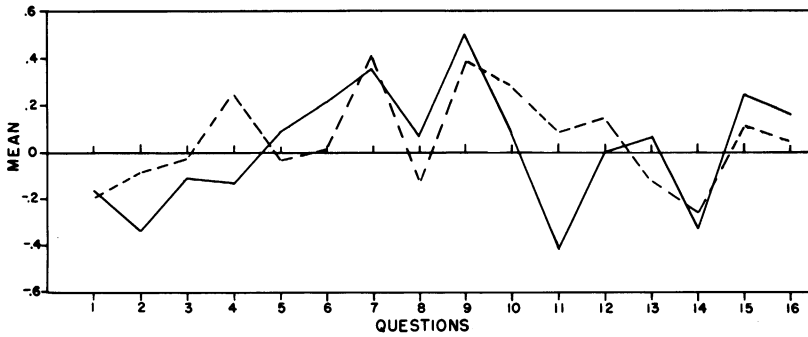


FIG. 19. Role profiles of younger brother, female respondents. Solid line, Navajo; broken line, Washo.

where Washo elder sister scores considerably higher with a significant difference between means on question 12 (to nag). Navajo elder sisters are much less likely to reject their brothers than Washo elder sisters; significant differences between means occur on questions 15 (to refuse help) and 16 (to reject). For female respondents, the roles of elder sister are quite similar in both societies (fig. 21).

YOUNGER SISTER: The role of younger sister is generally similar for the men of both societies except that a Navajo younger sister is significantly

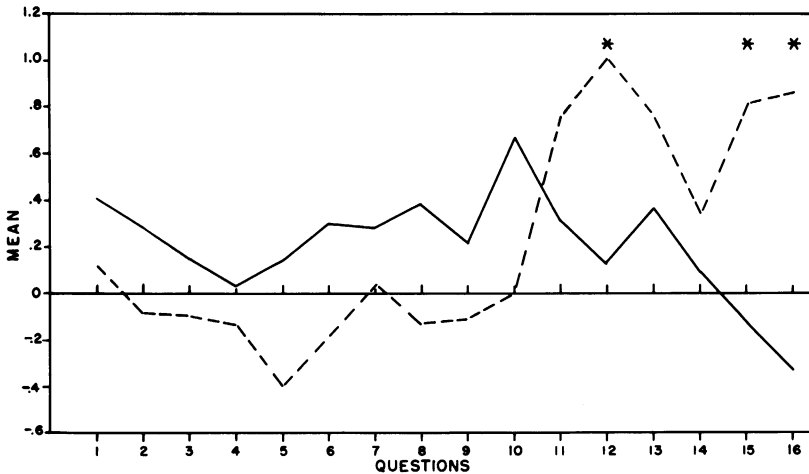


FIG. 20. Role profiles of elder sister, male respondents. Solid line, Navajo; broken line, Washo. An asterisk denotes a significant distinction between the means for a particular question.

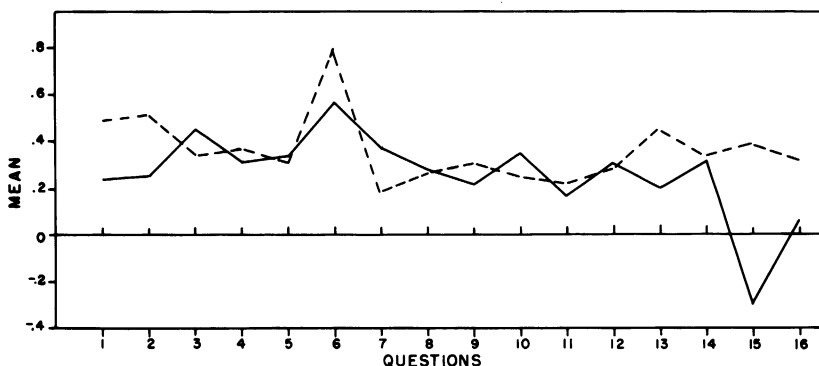


FIG. 21. Role profiles of elder sister, female respondents. Solid line, Navajo; broken line, Washo.

more likely to reject her brother (question 16) than a Washo younger sister (fig. 22). For women, the roles are quite similar (fig. 23).

SON: Son is a more important relative for Washo men than for Navajo men (fig. 24). Although there are no significant differences between means, the differences are fairly large on questions 5 (to like) and 6 (to cooperate). For women, the role of son is similar in the two societies although Washo sons seem more critical of their mothers than Navajo sons (fig. 25).

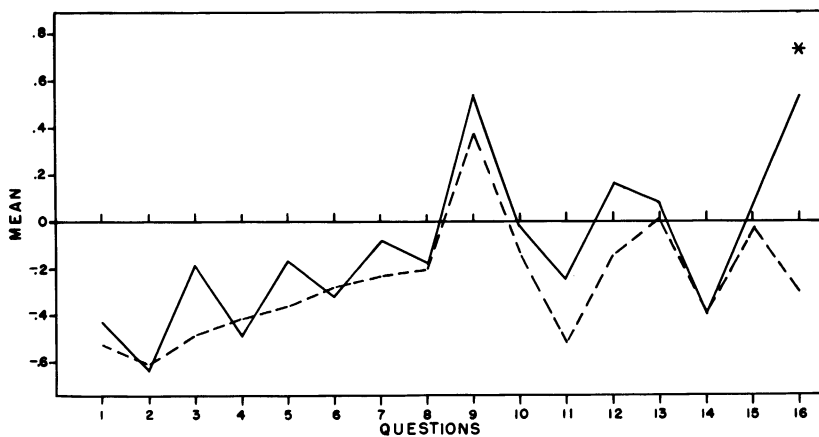


FIG. 22. Role profiles of younger sister, male respondents. Solid line, Navajo; broken line, Washo. An asterisk denotes a significant distinction between the means for a particular question.



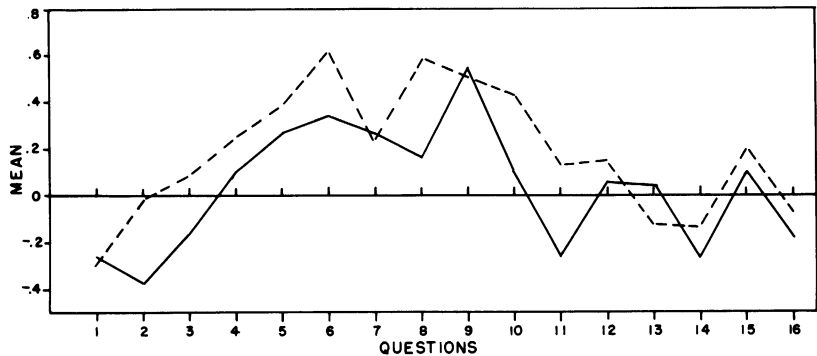


FIG. 23. Role profiles of younger sister, female respondents. Solid line, Navajo; broken line, Washo.

DAUGHTER: The role profiles for daughter are very similar for men in both societies (fig. 26). For women, the roles are generally similar although Washo daughter scores higher on dependence (questions 7 and 8). These differences between means are not significant (fig. 27).

In the case of male informants, the role profile test data agree fairly

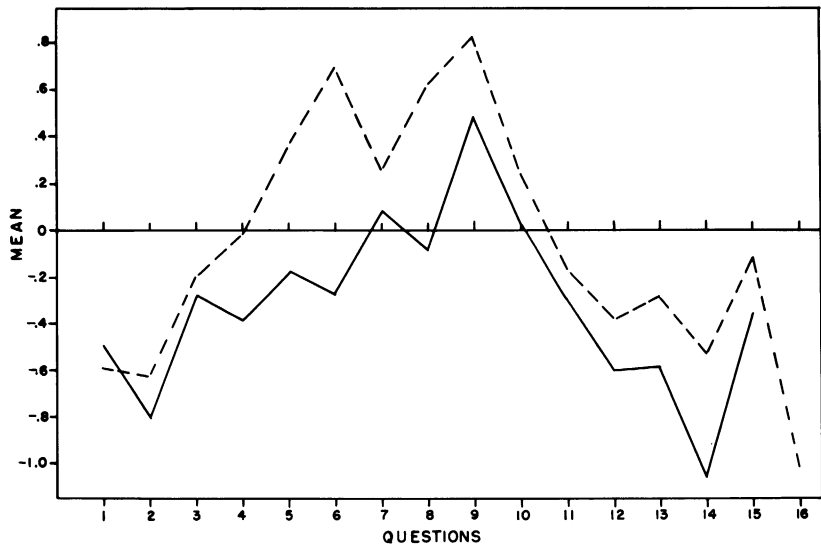


FIG. 24. Role profiles of son, male respondents. Solid line, Navajo; broken line, Washo. The mean for question 16 is not given because the number of respondents dropped below eight for that question.

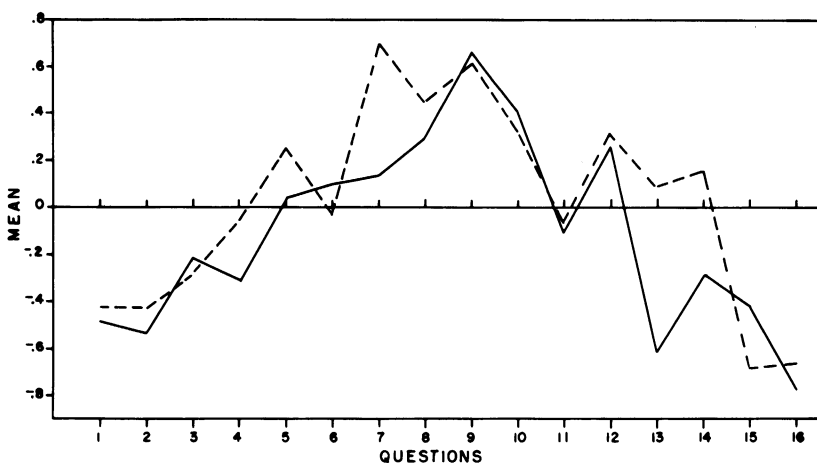


FIG. 25. Role profiles of son, female respondents. Solid line, Navajo; broken line, Washo.

well with what one might expect in the light of differences in social structure between the Washo and the Navajo. The matrilineality and matrilocality of the Navajo should increase the relative importance of mother, mother's siblings, sister, and daughter among the Navajo and

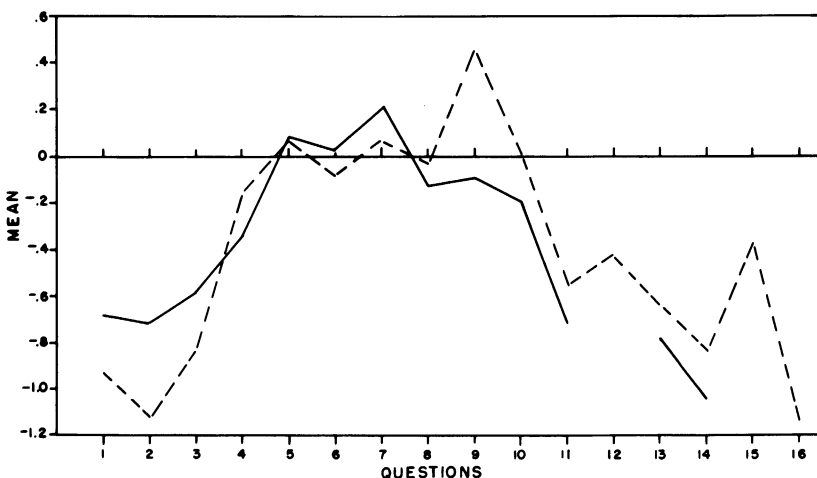


FIG. 26. Role profiles of daughter, male respondents. Solid line, Navajo; broken line, Washo. The means for questions 12, 15, and 16 are not given because the number of respondents dropped below eight for these questions.

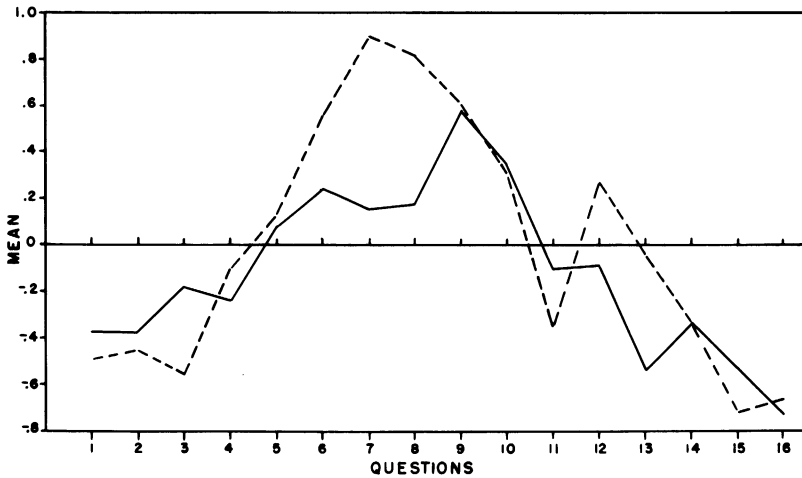


FIG. 27. Role profiles of daughter, female respondents. Solid line, Navajo; broken line, Washo.

decrease the importance of father's siblings, father, brothers, and son in comparison with corresponding Washo roles. If we consider only roles between which there are significant differences in means (table 19), we find that father, father's brother, and younger brother are more important to the Washo than to the Navajo; and mother and elder sister are more important to the Navajo. Mother's sister is an exception, for she is more important among the Washo than among the Navajo.

Although the role of younger sister is generally the same in both societies, a Navajo younger sister is significantly more likely to reject her brother than a Washo younger sister; and this is contrary to our theoretical expectations. For female informants, corresponding roles in the two societies are effectively the same. The only significant difference occurs between the roles of mother's sister where, contrary to our expectations, Washo mother's sister is more important than Navajo mother's sister.

Some features of the data cannot easily be explained by reference to social structure. It is not clear, for example, why the principal differences in roles occur for male informants whereas, for women, corresponding roles between the two societies are almost the same, or why, although mother's brother is more important to Navajo men than to Washo men, the role does not differ significantly for any question between the two societies, for the importance of the mother's brother in matrilineal societies is, perhaps inadvisably, often taken for granted by anthropolo-

gists, or why a Navajo younger sister is significantly more likely to reject her brother than is a Washo younger sister. Assuming that the picture of Washo and Navajo role behavior revealed by the role profile test is valid, we suggest that these unexpected results indicate only that elements of social organization such as residence preferences and unilineal kin groups do not rigidly determine role behavior but that many aspects of role behavior may vary considerably no matter what the elements of formal social structure may be.

### CONCLUSION

This research was designed to test the reliability and validity of the role profile test and to throw some light on differences in role behavior between a matrilineal and a bilateral society. Five researchers, all inexperienced, using four interpreters, interviewed respondents in two widely separated regions of the Navajo Reservation. Four girls worked in one region, and one girl in the other. Although the quality of the interviews varied considerably, all of the interviewers produced useful results. The test protocols were analyzed by region so that the results obtained by different interviewers and interpreters could be compared. If we assume that Navajo role behavior is the same everywhere on the reservation, then there should have been no significant differences between the means of corresponding roles for any of the 16 questions of the role profile test for either male or female respondents. However, five significant differences occurred. Although this result is somewhat ambiguous regarding reliability, we believe that, on balance, the test can be regarded as reliable. The five significant differences could have resulted from sampling error, for the samples were small and non-random, or, in fact, may reflect actual differences in role behavior, for differences in kinship terminology in the two regions indicate that role behavior may also be different.

The validity of the test is strongly supported by the agreement of the test data with Aberle's (1961) independent assessment of Navajo role behavior. Furthermore, the test results are in general accord with what one might expect from differences between Washo and Navajo social structures. The usefulness and versatility of the test were demonstrated in a variety of ways: it yielded more elaborate descriptions of Navajo role behavior than Aberle was able to glean from the literature or from his field work; it provided objective data on which a choice could be made regarding conflicting descriptions of the roles of mother's brother and father among the Navajo; and it enabled us to deal with the problems of ambiguity in role behavior although this quality was not explicitly probed by any single question.

Several interesting results emerged from the comparison of Washo and Navajo role behavior. The nuclear family was strongly emphasized in role behavior among the Navajo, as well as among the Washo. The matrilineality and matrilocality of the Navajo do not appear to enhance appreciably the importance of mother's siblings at the expense of parents. These factors may, however, have some influence with regard to ambiguity in role behavior, for this quality was prominent principally in male relatives among the Navajo, but it was evenly distributed among male and female relatives for the Washo.

In the direct comparisons of corresponding roles between the two societies, father, father's brother, son, and younger brother were more important to the Washo, and mother, mother's brother, and older sister, to the Navajo. The two roles showing the greatest dissimilarity were father's brother and older sister. The lack of any significant difference in the roles of mother's brother between the two societies, the greater importance of mother's sister to the Washo than to the Navajo, the significantly greater likelihood of a Navajo younger sister rejecting her brother than a Washo younger sister, and the fact that differences between corresponding roles were confined almost entirely to male informants were results not readily explained by reference to differences in the social organizations of the two societies. These latter results, which were unanticipated, suggest that elements, such as residence preferences, unilineal descent groups, and family types do not rigidly determine role behavior, and that many aspects of role behavior may vary considerably no matter what the elements of formal social structure are. It may prove, therefore, rather difficult to specify "typical" role behavior in various types of societies as defined by their formal social structures.

Although the role profile test appears to yield useful and generally valid results when used by inexperienced interviewers in field trips of a few weeks duration, much more satisfactory results may be achieved by using the role profile test toward the end of a normal anthropological field trip of a year or more when the investigator is well known and has established good rapport. In such circumstances, it may be possible to deal more effectively with the problems of translation, the quality of interviews, the size of the sample, and randomization. Our work to date suggests that the role profile test is a useful instrument for the investigation of role behavior and for its cross-cultural study. Research of longer duration than we have been able to undertake and making use of larger, random samples should yield results that may be accepted with considerable confidence and that would be of great interest.

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## REFERENCES CITED

ABERLE, DAVID F.

1961. Navaho. In Schneider, David M., and Kathleen Gough (eds.), *Matri-lineal kinship*. Berkeley, (etc.).

AZEVEDO, WARREN L. D' (ED.)

1963. The Washo Indians of California and Nevada. *Anthrop. Papers*, Univ. of Utah, no. 67.

DOWNS, JAMES F.

1961. Washo religion. *Anthrop. Rec.*, Univ. California, vol. 16, no. 9, pp. i-vi, 365-386.  
1966. *The two worlds of the Washo*. New York, (etc.).

FREED, STANLEY A.

1960. Changing Washo kinship. *Anthrop. Rec.*, Univ. California, vol. 14, no. 6, pp. i-iv, 349-418.  
1965. A comparison of the reactions of Washo and Mohave respondents to an objective technique (role profile test) for measuring role behavior. *Trans. New York Acad. Sci.*, ser. 2, vol. 27, no. 8, pp. 959-969.

FREED, STANLEY A. AND RUTH S. FREED

1968. Mohave and Washo role behavior. *Amer. Mus. Novitates*, no. 2330, pp. 1-49.

[In press.] A note on regional variation in Navajo kinship terminology. *Amer. Anthropol.*

KLUCKHOHN, CLYDE, AND DOROTHEA LEIGHTON

1946. *The Navaho*. Cambridge, Harvard University Press.

LEIGHTON, DOROTHEA, AND CLYDE KLUCKHOHN

1947. *Children of the people*. Cambridge, Harvard University Press.

LEVY, JERROLD E.

1962. Community organization of the Western Navajo. *Amer. Anthrop.* vol. 64, no. 4, pp. 781-801.

LOWIE, ROBERT H.

1939. Ethnographic notes on the Washo. *Univ. California Publ. Amer. Arch. Ethnol.*, vol. 36, no. 5, pp. i-iv, 301-352.

PRICE, JOHN A.

1962. Washo economy. *Anthrop. Papers, Nevada State Mus.*, no. 6.

REYNOLDS, TERRY RAY, LOUISE LAMPHERE, AND CECIL E. COOK, JR.

1967. Time, resources, and authority in a Navaho community. *Amer. Anthrop.*, vol. 69, no. 2, pp. 188-199.

SHEPARDSON, MARY, AND BLODWEN HAMMOND

1964. Change and persistence in an isolated Navajo community. *Amer. Anthrop.*, vol. 66, no. 5, pp. 1029-1050.

1966. Navajo inheritance patterns: random or regular? *Ethnology*, vol. 5, no. 1, pp. 87-96.

STEWART, OMER C.

1941. Culture element distributions: XIV—Northern Paiute. *Anthrop. Rec.*, *Univ. California*, vol. 4, no. 3, pp. i-iv, 361-446.

1944. Washo-Northern Paiute peyotism. *Univ. California Publ. Amer. Arch. Ethnol.*, vol. 40, no. 3, pp. i-vi, 63-142.

WITHERSPOON, GARY

1970. A new look at Navajo social organization. *Amer. Anthrop.*, vol. 72, no. 1, pp. 55-65.

