

Personality and Peyotism in Menomini Indian Acculturation

George Dearborn Spindler*

DURING THE COURSE of a field study of acculturation among the Menomini Indians of Wisconsin, four broad levels of adaptation to the impact of Western civilization were defined and the processes they represent explored.¹ One of these levels is represented in the membership of the Peyote Cult, as a special variant of a transitional acculturative type. The purpose of this paper is to summarily discuss selected aspects of the social and psychological functions of this Cult in the processes of Menomini culture change, and to define a close relationship between cult-defined behaviors and psychological process that appears to suggest the identity, under certain conditions, of what have been called personality and culture.

The research as a whole has been conducted with a rigorous methodology involving the separation of two basic, complex variables, one of which has been called *sociocultural*, the other, *psychological*. The interest has been, therefore, in the relationship between adaptations in personality structure and adaptations in the overt, objective aspects of social life. This problem has required the use of a schedule of sociocultural indices to isolate and define the one variable, and the Rorschach projective technique to define the other. With the use of appropriate statistical techniques, it has been possible to differentiate segments of the continuum of acculturation in both its social and psychological dimensions, and to accurately perform tests of their relationship.² The four acculturative categories, constituting statistically valid segments of a complex

continuum of sociocultural adaptation are as follows: (1) the least acculturated Medicine Lodge and Dream Dance group; (2) the acculturally transitional levels (including the Peyote Cult as one category); (3) the most acculturated level, with lower socioeconomic status; and (4) the most acculturated level, with elite socioeconomic status.

The method of participant observation has been used extensively throughout the study of the Menomini Indians. This method, together with data in the form of interview materials, a variety of personal documents, and 11 short autobiographies gathered from men and women carefully selected for their representation of certain processes, has given substance and meaning to the sociocultural and Rorschach indices used to define the two basic variables.

The data on which this paper is based were collected from 15 adult male members of the Peyote Cult. The data consist of sociocultural items appropriate to the schedule, 13 Rorschachs, 2 autobiogra-

²The main statistical technique used has been chi-square. Several hundred tests of differentiation in both variables have been performed. A complete statement of the methodology and techniques used is available in the following article: George Spindler and Walter Goldschmidt, "Experimental Design in the Study of Culture Change," *Southwestern J. Anthropology* (1952) 8:68-83.

* M.A. Univ. of Wisc. 47; Ph.D., Anthropology, Sociology, and Psychology, Univ. of Calif., Los Angeles 52; Acting Instructor, Sociology and Anthropology, Univ. of Wisc. 47-48; Rsc. Assoc. 50-51, Asst. Prof. 51-, School of Education and Dept. of Sociology and Anthropology, Stanford Univ. Member: Amer. Sociol. Soc. Fellow: Amer. Anthropological Assn. For bibliography, see Reference Lists section of this issue.

¹This field work was carried on during the summers of 1948, 1949, and 1950, with the collaboration of Mrs. Louise Spindler, and with financial support from the Dept. of Sociology and Anthropology, University of Wisconsin; the Committee on American Civilization, University of Wisconsin; and the Dept. of Anthropology and Sociology, University of California, Los Angeles. The research will continue during the summer of 1952 with a grant from the Wenner-Gren Foundation for Anthropological Research, New York City.

phies, 39 verbatim descriptions of visions, and verbatim statements of the conversion experience of 9 persons. These data have been supplemented and extended by participant observation in both the sacred and secular aspects of the lives of the members. It is on these data, with the background of material from all acculturative levels, that the following interpretive analysis is based.

ATMOSPHERE OF THE CULT MEETINGS

The details of the Peyote ritual and ceremony would be out of place here, but enough of the atmosphere and character of this Cult, as the Cult is found among the Menomini,³ must be furnished in order to give literal meaning to abstract analytic terms.

During warm weather the Cult meeting is held in a large white canvas tepee in the yard of the person giving the meeting. It is a spectacular and solemn affair, and begins at sundown on Saturday with a prayer outside the entrance of the tepee. After this opening prayer the assemblage files in to take places around the circle of the hearth piled with clean, split, four-foot staves already burning. The meeting is formally opened by the elected chairman, who asks the sponsor of the meeting to declare its purpose. When he is finished, appointments to the place of cedar man, fire tender, and waiter are stated and the Peyote is passed, first in ground and moistened form, then as solid and very dry buttons.⁴ With this the singing and drumming begin, each man taking the staff and a gourd rattle as he sings to the accompaniment of the rapid beat of the Peyote drum—a small kettle with a head of tautly drawn buckskin and an inch or two of water in the bottom. The

singing is plaintive, usually high-pitched, and repetitious.

In the center of the tepee ground is the carefully laid fire, the ashes of which are swept, at dawn, into the form of a dove. Between the leader's place and the hearth is the half-moon altar of sand, with its small pedestal for the "Master" Peyote,⁵ and a line drawn along the top of the half-moon's ridge to symbolize the difficult and narrow path the Peyote member must follow through life.

Christian symbols are apparent in the material structure and paraphernalia, as well as in the prayers and speeches. The tepee's poles represent Jesus Christ and his disciples. The wooden staff is carved with crosses. Many of the prayers and songs are directed to Christ by name. The leader crosses his breast before lifting the blessed water to his lips in a silver goblet. But the basic conceptions and premises of the Cult are native-oriented, modified and perverted to meet the unique needs of the participants.

The ultimate, declared purpose in taking Peyote is to acquire the power with which it has been invested by the "Holy Spirit." This power cannot be obtained by merely consuming Peyote. It comes to one only when the supplicant approaches it in the proper spirit of humility and after long preoccupation and concentration. If the person is "filled with sin," the medicine will only make him ill. Once Peyote power is acquired, it enables a person to do wondrous things, serves to protect him from evil, including sorcery, and will cure his physical ills.

Both the humility and the concentration for the purpose of attaining power are very reminiscent of the traditional Menomini approach. But here they are accompanied by feelings and declarations of worthlessness; and an expression of guilt, foreign to the native-oriented Medicine Lodge and Dream Dance meetings, pervades much of what is said and done in the Peyote meeting. Another difference is that the intense concentration during the Peyote meeting—each member

³ The Peyote Cult is widespread among American Indian tribes. It came into the southwestern United States from Mexico and diffused rapidly as a "nativistic movement," from about 1870, but did not develop on the Menomini reservation until 1914.

⁴ The "buttons," usually about one inch in diameter and one quarter of an inch thick, are the dried buds of the cactus *Lophophora williamsii*. They contain narcotic alkaloids of the isoquinoline series, some strychnine-like in physiological action, and others morphine-like. Peyote is not considered to be habit forming. See Weston La Barre, "The Peyote Cult," *Yale Univ. Publications in Anthropology*, No. 19, 1938.

⁵ This is an extra large Peyote button about three inches in diameter that is regarded as a sacred object.

turned in upon himself, and aided in this by the drug and by the fire into which he stares—is not only concentration upon the nature of the power to come to him, or the spirits of heaven, but also upon the personal self and its conflicts.

The atmosphere during the first half of the meeting is serious, intense, but quiet. Each man seeks his revelations, his salvation, and gains power individually. After midnight has passed, the voices become more emotional, the drumming more rapid. The songs become a cry for help. The prayers become a plea for salvation, for aid, and for relief from doubts, fears, and guilt feelings. It is then that Peyote curing begins, as the native doctor and the collective prayers of the group restore to health members or visitors suffering from sundry ills. The feeling becomes so intense that constraints on overt emotional expression, deeply internalized in the Menomini personality, tend to break down, and the individual throws himself upon the mercy of the Saviour and the power of Peyote in a manner that parallels the behaviors displayed in revivalist meetings in white society.

VISIONS

Throughout the time of the meeting some of the participants are having visions. They are usually no more than fleeting impressions—a shape in the fire, a voice from above, the swish of angels' wings, a sensation of flying, displacement in space, or the separation of spirit and body. The examples following, in the words of three members, are typical.⁶

Sometimes while I was singing I saw a long hollow tube that reached way out. I would holler and could see my voice go down the tube. I would try to throw my voice way down to the other end, and then watch it circle round and round and come back to me. I can do more with my voice than the others because I take more medicine [Peyote]. When the drum stops and I stop singing, the tube goes.

One time I was sitting in a meeting. It was the Fourth of July. We celebrate it that way. Different tribes come in—Winnebago,

Potawatomi—for a visit. I was sitting there—all at once, something—I could see something going on. The last stick, burning on the fire, I see a staff there. I took a good look at it. Everybody was sitting there, but no one else seen what I see. It was like a Thunderbird, with the head here, the tail down here, and a place to hold it. Just before the meeting was over the fire went down and that disappeared.

It was just going on, the meeting. Them prayers was all so pure. Just then, I heard something, like when he was getting through praying. It sounds like "ph, ph, ph." I look at somebody, but nobody else hear that—just myself. Then I could feel something brush my face, and that same sound. That was all, but I knew what it was.

These things happen to several participants at most meetings, but full-blown visions, with detailed imagery and with content particularly significant to the person, occur infrequently. Those that do occur may be categorized under the following headings: instruction and revelation, power attaining and protection, inspiration, prophecy, and salvation. The theme given greatest significance is that of salvation, usually connected with curing, with thwarting the evil powers of a witch or the devil, or with conversion to the Peyote Way. In the repetitions of this theme there is nearly always a declaration of salvation by being "pulled up" through the power of Peyote, and contrasts between light and dark, good and evil, and hope and despair. The most clear-cut vision experience of this sort usually occurs during the period of conversion, especially at the time of baptism. After this it usually occurs as a reaffirmation of the person's grace and power, and as a heavenly sanction for his actions as a sincere Peyote man. Involved in it are always a sense of guilt, conflict, and deep anxiety. It is the sinner being saved, not the stoic but confident Menomini of the old culture awaiting the bestowal of power in a vision. The following vision experiences, recorded verbatim from two of the members, are good examples of the more significant and complete type. The first is a part of a conversion experience, the second is concerned with a 'cure.'

It was when I first went to a meeting, in 1913. I went along and sat down between

⁶ The interview material presented throughout the paper consists of verbatim statements recorded in writing at the time of the interview.

them, a couple of the old boys. They tell me, "Take four, you eat them, and then we give you ours"—so, "All right," and I did. After midnight I went out with one of the boys, outside. He say, "You ever pray?" I say, "No." "You pray like this," he tell me. "There is a Almighty God up above us. He made everything—the trees, the stones, even the daylight is God. You ask him for power, so you live a long time, so you can work, be strong. You say this in your own language. All right. Now, let's go inside, sit down."—Now we take some more Peyote. So we take some. As I sit there I listen to the song and drum. Suddenly my mind went blank. It seemed like the song and drum went up—above me. As I was sitting there I looked up to where the drum was going. I see a cross. I stretched out my arms like this to reach it, but I can't. It's daylight up there. Then I look behind me. It's dark. I'm going to fall! Then I pray, "God help me." Then the singing stop. I come to myself—the way I'm sitting. All that time I'm going through that, daylight come. The meeting was over.

That was the very first experience. Nobody tell me about it. It come by taking the medicine. It come by itself. It is a true experience.

I was pretty sick. I had the flu bad.⁷ . . . Well, then I got home. Of course I lay down, because I was still sick. Then the next day my folks took me to a meeting that was going on. I went in and lay down. Joe Bear was sitting there too. Joe said they should all help because I was pretty sick. So they give me about thirty Peyote all smashed up with warm water so I could take it down good. My uncle told me, "There's nothing we can do for you. The power is in this. If you want to live, take it!"—"Well, all right," I said. So I took it all down. The water come right back up, but not the rest. Then later they give me thirty more Peyote smashed the same way. I took it all down. Sometime, too, I took dry Peyote in there, about fifteen.

Well, I was lying there. My head was turning. I was dizzy. Then they were singing. I listened to that. Then all of a sudden I see a big stairway in front of me. The first step was right like this [points to weathered step to outside door], right by me. It seemed like them next steps was all glassy. They was shining, real nice. Gee! They was clean and nice. The first was about like this here, and each got brighter, it seemed like, all the way up. I could see them all, one by one. Up to the top it seemed all bright and light, real good, clear. Then I knew I would be well next day. The next morning, sure enough, when I woke up, I felt good.

It seems like it means that if I keep on living good, and learned more and more [about Peyote], I could climb them steps one by one, somehow. That was the first time I ever see anything at a Peyote meeting.

CONVERSION

It is to this unique integration of native-oriented power, curing, vision concepts and behaviors, and Western-oriented elements of Christian ideology and culture, that the Peyote members have all at one time or another in their life experience been converted. Every one of the 15 most active male members, during childhood at least, had experience with a way of life turned toward the old culture. Seven of them once participated in the Medicine Lodge, and all of them were raised by relatively conservative parents or parental surrogates. Every member has also had extensive experience with Western culture. Five have been members of the Catholic Church, and all have been under the direct influence of Catholicism.

In the conversion statements recorded for these people, there are two basically similar trends. In one, the individual becomes unsure of the meaning of the older religious forms with which he identified and begins to drift away from them. He may go to the Catholic Church, or he may simply stop participating in the native-oriented groups. For a time he floats from one group to another, just as most transitionals do. Everything he tries is unsatisfactory. Finally he tries Peyote, and finds a resolution to the culture conflict. The following record expresses the situation clearly.

My old aunt was the one. My mother died when I was little and this aunt raised me. I lived with her. That was when I had my other wife. I used to go to all this powwow doings.⁸ I never knew what it was all about. I never prayed or nothing. I just go to have a good time, to dance, sing. I never heard a word about God. It was the same with the Mitäwin [Medicine Lodge] too. I just sing songs, dance, listen to the drum. I never think about what any of it meant. Then one day,

⁷ There are several paragraphs of circumstantial detail between this and the next sentence that have been eliminated.

⁸ This is local terminology for the "Dream Dance," a native-oriented religious ceremonial group consisting of membership drawn from the less acculturated Menomini personnel.

I was about twenty-nine then, my old aunt called me over to a meeting. She handed me a big dipper full of tea. She said to me, "Drink that; it's something good. I want you to have this." Well, I couldn't hardly say "No" to her. So, "All right," and I took it down. Then later, I had some more, another big dipper full of tea. I sat there all night, and listened to them praying. Everything was good, *good*, just right. So that's how I got started. I learned about God. I thought a lot about it. Here, I could pray my own way, from my heart. After I got into that I pulled away from the powwow and Mitāwin, and all that stuff.

In the other type of conversion the individual is, like the first, at a loss as to what to identify with. Here the situation and the solution are similar, but the stresses are more acutely personal. He finds a home in the Cult.

Well, I just happen to—how I come across Peyote—I was amongst the Winnebago, roaming around after I lost my folks, all alone. Of course I had two sisters, but they in school. I didn't know where to go or what to do, kinda lost like. Then I come across people that use that medicine. I just happened to be traveling through there. It just happened to be a family, very much respected. They invite me to visit them. They ask me how I happen to be roaming around. I told them my bad luck story. I told them I didn't know what to do with myself.⁹

They said one time they was going to have a doings. I didn't know nothing about it. They said, "Prayer meeting tomorrow, a big gathering. People come from all around."—When finally they got started—I kind of wondered. I was going to find out something—how that meeting going to go. The leader got up to talk. He said, "Whenever we have a meeting, there is some purpose; another reason, we got one kind of lost. He don't know where to go. So I adopt him, make him a son. We have him join us now." Then he ask each one to pray for me, to take care of me as they went along.

That's the first time I use the medicine. I find out about nice, respectable people. I told them about morning, "I think I'm going to follow it up." Then I thanked them. That's how I got started using this medicine, with them people.

They used me good. Next morning they was glad to see me. They wished me good luck. "Now I have come to something good—something—very wonderful," I thought. I was glad about it. Until now that's all I been doing. Now finally they got me to be a chair-

man and they consider me a very respected man. I never had no trouble of any kind.

In both types, and in all cases, the individual is always without secure identification with any primary group and cannot identify with any set of symbols. He has neither culturally sustained goals nor effective means of attaining them. Whether he was once actively identified with the Medicine Lodge or Dream Dance, or not, he is never able to relinquish all ties with the old way of life and cannot satisfyingly accept Catholicism; yet he has come to doubt the old way of life and cannot find satisfaction in the old religion. He feels more Indian than he does white, but he is enough white to feel uncomfortable as an Indian. To him, the cohesive, in-group support of the Peyote Cult is attractive because it gives him a social body with which he can identify. It not only gives him personal security but resolves for him the intense conflict he feels between the internalized compulsives of the old way of life and the values and modes of satisfaction in Western culture—for in ritual, premise, and in-group position in the reservation's social structure the Peyote Cult is a unique rationalization of the two culture complexes.

With the situation of the individual in mind it is clear why the actual conversion experience in the meeting and the accompanying vision experience usually involve salvation of the soul, and contrasts between good and evil, and dark and light. For the individual in acculturative transition, doubts about and loss of meaning in the old culture are doubts about and disturbance of the self-concept. The very core of his identity is threatened. Identification with Peyote literally saves the self and gives it sanctions and directives for an integration of conflicting cultural patterns. In the social psychologist's terms, the generalized other of both the native-oriented and white-oriented groups encountered by the person in his transitional position are made tolerably compatible and bases for self-maintenance are found. The guilt is a product of the self-disturbance, exhibited in feelings of worthlessness and resolved by accepting

⁹ Several sentences that repeat his "bad luck story" are deleted between this and the next paragraph.

the Cult's rationalizations. The reaffirmation of sanctions in the postconversion vision experiences is an expression of the insecurity of this resolution.

A HYPOTHESIS FOR DEVIATION

Of particular significance is the fact that the Peyote members share with all Menomini in transition, in the acculturative continuum defined for the Menomini, the common experience of loss of group identity, conflict between cultural directives and the roles patterned by them, and deep disturbance of the self, but that despite this the Cult represents a *systematic deviation*¹⁰ that distinguishes its members from the amorphous and unorganized mass of transitionals that have few, if any, clear-cut group identifications. The Cult is clearly deviant, from the viewpoint both of the extremes of the acculturative continuum, and of the larger transitional mass.¹¹ It has a high degree of social visibility in the reservation community, and the members are very self-conscious about their identity. It is systematic because rapport has developed among the deviants and a content of rationalizations for the deviation is held in common. The culture conflict experienced by all persons in transition has been resolved in a way that has been formalized and institutionalized, and is supported and expressed in a shared set of symbols, roles, and behavior patterns. In these respects it is fundamentally no different in function or origin from the religious sects that proliferated on the American frontier during the nineteenth century, and it exhibits certain processes in common with all other organized, highly deviant groups. Like many of them it is a tightly knit, cohesive social microcosm that dominates the social actions of the members.

¹⁰ This term is used extensively by Edwin M. Lemert, *Social Pathology*; New York, McGraw-Hill, 1951.

¹¹ This is true both in respect to the unique patterning of the Peyote subculture, and with regard to the expressed attitudes of personnel in these other categories. It is not true, however, in respect to socioeconomic status. In objective indices, such as house-type, occupation, income, and so on, the Peyote group is not differentiated, by statistical test, from the transitional and lower status acculturated.

The fact that this deviant group has been socioculturally systematized and highly organized, and the background of culture conflict, role disturbance, and self-doubt shared by its members and all other Menomini in transition, suggests that this group should represent a unity of personality. Not only should the anxiety and tension generic to the transitional position be present, but it would seem probable that the intense self-searching, deep introversion, and resolution supported by the unique ritual forms and ideology, and aided by the Peyote drug itself, have given this shared personality type a special character. It should represent, psychologically, a systematized and narrowly defined species of transitional type. In short, the systematic deviation apparent in overt aspects of behavior within this group may be expected to appear, likewise, as a systematic deviation in personality type. This, it is suggested now, will be true, regardless of variability in other life experience, including early child training. The intensity of the shared, and symbolically supported systematic deviation, it appears, may be such that all other factors, past or present, tend to be overridden.

THE HYPOTHESIS TESTED

As an exhaustive statistical comparison of the Rorschach indices taken from this group indicates, the hypothesis just stated is, indeed, supported.¹² The Peyote group is differentiated at higher statistical levels of significance, from all of the other levels, than any of the other acculturative categories defined for the Menomini. This is especially remarkable in view of the fact that this means that there are fewer differentiations between the least acculturated and most acculturated levels than between the least acculturated and the Peyote group, despite a unity of cultural experience during the early years of life shared by the persons of these last two categories. Also, in homogeneity of Ror-

¹² All groups were tested for deviation from each other by means of chi-square, in respect to 21 crucial Rorschach scores and patterns. For the statistical rationale and data, see the Statistical Note and Tables 1 and 2 at the end of this paper.

schach indices indicating major facets of personality, the Peyote members are one. There is less intragroup variability here than within any other group excepting that of the least acculturated.¹³

The psychological deviation, as revealed by Rorschach scores and patterns, is expressed in ways that are strikingly parallel to the unique directives and behaviors that distinguish the Peyote Cult in its sociocultural dimensions. The most striking of the deviations in personality structure thus revealed is in the degree to which fantasy is concerned with the self. The Peyote group is the only Menomini category in which the number of human movement responses in some cases approaches, and in others exceeds, the number of animal movement responses, in a statistically significant number of cases.¹⁴ Contentwise, these M responses revolve about the relation of the individual to the supernatural, and the fantasy cast up in them tends to express deep anxiety and self-doubt, with destructive, conflicting forces frequently present. This anxiety is also revealed, in its most free-floating and unsystematized form, in the relatively great emphasis on the diffused shading responses (K), a category that is surprisingly neglected among all other Menomini groups.

The parallels between cult-defined behavior and the dynamic organization of personality are strikingly clear. The person comes to the Cult torn by the conflict of cultures, interpreted by him as a personal conflict. He finds there a placebo for his deep anxieties, because the Cult presents one kind of solution to culture conflict and gives him something meaningful with which to identify. Once he becomes a member, however, his concern over the self is not diminished; it is, rather, given sanction in the symbolically supported rumination and concentration

upon the relation to grace and power that are so vital a part of the Cult's esoteric emphases. The diffuse anxiety indicated in his Rorschach protocol is a sign that his personal and cultural conflicts have not been completely resolved by this concern over the self.

In other areas expressed in Rorschach indices and patterns, the parallel is as fully direct and as organically related. The Peyote personnel as a group tend to be differentiated in the degree to which they see vistas and perspectives, indicating introspective tendencies, in the ink blots. While responses scored FK are not infrequent among the Menomini of all other levels of acculturation, the Peyote group is distinguished here from the least acculturated, the transitional mass, and the elite acculturated. Here again, the relationship between cult-defined behavior and personality appears to be clear. Introspection is integral in self-concern. It is powerfully supported by the ritual and the purposes of the Cult's meetings, and perhaps psychophysiologically stimulated by the effect of the drug itself. The introspective tendency shared within the Menomini population as a whole is seized upon and given a special emphasis by identification with the cohesive, centripetally oriented cult.

These are the major areas of deviation represented by the responses to the Rorschach for the Peyote group. Others exist, but they are functionally subordinate, and reflect the ones already described, with one exception. This one is highly significant and deserves statement. Here the Peyote Cult members and other persons in transition tend to be alike. It is in the breakdown of rational control over the outward-oriented emotional responses that this similarity exists. All of the transitional Menomini in the sample tend to be differentiated by virtue of the degree to which the less-form-controlled responses using color (CF) tend to dominate the more-form-controlled responses (FC). The Peyote and other transitionals stand apart from the rest of the Menomini here, for the exercise of deep constraint over the open emotional expression indicated in

¹³ This statement is based upon inspection of the distributions of Rorschach indices within each group, since averages and variances demand statistical assumptions that are not applicable to Rorschach scores.

¹⁴ All scoring of Rorschach responses has followed that systematized by Bruno Klopfer and Douglas M. Kelley, *The Rorschach Technique*; New York, World Book Co., 1946.

Rorschach responses using bright color is especially characteristic of the least acculturated group, and rational control over such responses is characteristic of the acculturated groups. In view of the background of culture conflict and loss of group identity shared by all transitionals as a part of their life experience, it is not surprising that this is so. Social disorganization reflected in individuation and dislocation is most logically accompanied by psychological disintegration and regressive tendencies, and this is the case here.

This concludes the analysis of the Menomini Peyote Cult. Its social psychological function in acculturation, and the

nature of a striking relationship between cult-defined behavior and personality, have been described. It has been indicated that the Peyote Cult members represent, as a group, a systematic deviation socially and psychologically, and that this is so irrespective of variation in early childhood experience. The inferences to be drawn from this for the understanding of the specifics of the role of cults of this sort in social and cultural change are important; but even more significant are the implications of this for the relationship between what have been called personality and culture, for here the two seem practically identical.

STANFORD UNIVERSITY
STANFORD, CALIF.

STATISTICAL NOTE

Table 1 represents the levels of significance, given in values of P obtained from a table of chi-square distributions, for comparisons between the Menomini Peyote Cult group and each of the other four acculturative categories.* The values of P contained here, with the exception of the B:E comparison in M:FM, indicates that the indices listed are so differentially distributed between categories that there must be association between the attributes denoted by those indices and acculturative position that cannot be accounted for by chance alone.

Table 2 contains the data from which the levels of significance were obtained with the chi-square test. It will be noted from Table 2 that the total sample N is 68, and that the smallest subsample n is 10. This means that the chi-square test is applied here to very small samples,

and that the "expected frequency" in some cases is lower than 5. The use of chi-square where the expected frequency is lower than 5 is not condoned by most statisticians. In order to provide maximum security in the treatment of this data, Yates' correction for continuity was used in all computations of chi-square.† This involves reducing the difference between the observed and expected frequencies by .5, so that any chi-square value obtained is conservative. This still does not answer the objection to use of chi-square where expected frequencies lower than 5 are obtained. In order to provide accurate statements of probability in these cases, the "exact method" was used.‡ This involves fairly laborious calculations but is not subject to the same strictures as chi-square.

† See G. W. Snedecor, *Statistical Methods*; Iowa State College Press, 1940; p. 169.

‡ See R. A. Fisher, *Statistical Analysis for Students in Psychology and Education* (10th edition); Edinburgh, Oliver and Byrd, 1946; pp. 96-97.

* The Tables include only 6 of the most critical of the 21 Rorschach indices for which comparisons were done in the larger study.

TABLE 1

LEVELS OF SIGNIFICANCE

	M	M:FM	K	FK	F%	CF:FC
A:B	.04	.01	.001	.02	.04	.001
B:C	..	.06	.001	.05	..	...
B:D	.01	.01	.02	..	..	.02
B:E	..	.10	.01	.02	.02	.001

ACCULTURATIVE LEVELS

A = Least Acculturated
B = Peyote Cult
C = Transitional Mass
D = Lower Status Acculturated
E = Elite Acculturated

RORSCHACH INDICES

M = Human Movement Responses
M:FM = Ratio of Human to Animal Movement
K = Diffused Shading Responses
FK = Vista and Perspective
F% = Proportion of Responses Using Outline Alone
CF:FC = Ratio of Uncontrolled to Controlled Color Responses

TABLE 2

DISTRIBUTIONS OF RORSCHACH INDICES

	A	B	C	D	E
4 or more M	2	7	5	0	7
less than 4 M	15	6	10	10	6
M equal to or greater than FM ..	1	7	2	0	2
M less than FM	16	6	13	10	11
1 or more K	1	12	4	4	4
less than 1 K	16	1	11	6	9
FK present	6	11	6	7	5
FK absent	11	2	9	3	8
greater than 25% F	12	5	8	8	12
less than 25% F	5	8	7	2	1
CF greater than FC	0	11	8	4	1
CF equal to or less than FC ..	17	2	7	6	12