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THE PSYCHOLOGICAL AND CULTURAL BASES
OF MAGICAL DISEASE BELIEFS.

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THE PSYCHOLOGICAL AND CULTURAL BASES
OF MAGICAL DISEASE BELIEFS

by

Richard Martin Brooks

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Richard Martin Brooks

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ABSTRACT

This study was concerned with the psychological and cultural implications of magic disease beliefs found among Mexican-Americans in Tucson, Arizona. When these people, as patients in a psychiatric clinic, presented magic beliefs, it was not known whether to treat the beliefs as an aspect of their psychopathology or to view them as consequences of stress-free learning of cultural concepts.

The relationship between personality and culture was examined and, after a survey of traditional viewpoints, definitions for each term were established. The defense mechanism of projection was considered the most likely psychological factor to account for magic disease belief. Cultural orientation has been considered a determinant of personality structure in the "modal personality" concept and the possibility of this relationship was entertained. Three hypotheses were considered: 1) magic disease belief is an expression of the psychological defense mechanism of projection; 2) these beliefs are culturally determined and reflect a way of understanding the world which is unrelated to personal stress or dynamics; and 3) cultural orientation determines the structure of personality and the magic disease beliefs are both a product of cultural experience and a means by which personality characteristics are expressed.

To measure magic disease belief, projection, and cultural orientation, a questionnaire and psychological test were constructed. The first variable was measured by determining the intensity of belief in

mal ojo, mal puesto, and embrujado, the three magic disease concepts commonly found among these people. A test of projection was made by composing stories about typical experiences of the Mexican-Americans that seemed to be appropriate for ten pictures from the Thematic Apperception Test. Each story was followed by four questions, half of which were designed to reflect the use of projective defenses. The test was validated by a panel of experts. An acculturation index was developed to measure cultural orientation. The components of the index indicated the relative influences of American and Mexican cultures in several areas of an individual's background.

Male Mexican-Americans were found to be too suspicious and uncooperative and the respondents were restricted to females. Two Mexican-American girls interviewed a random sample of women with Spanish surnames and with few exceptions the interviews were conducted in Spanish. Data from 30 interviews with believers in magic diseases and non-believers were used in the final analysis. Magic disease belief was found in 36 per cent of all the interviews conducted.

The results showed that magic disease belief was highly related to cultural orientation. Additional evidence for the cognitive aspect of the beliefs was found in other analyses of the data. No relationship was found between the defense mechanism of projection and either magic disease belief or cultural orientation. The magic disease beliefs were thus not found to be an expression of projection nor was evidence found to support the contention that the cultural orientation was related to this aspect of the personality structure. The implications of these results are that personality and culture variables are

related in complex and varied ways and may be found to be relatively autonomous. The bases for any given phenomenon must be determined by examining the context in which it is found and generalizations of the significance of personality or culture variables from one culture to another may not be justified. The cultural basis of magic disease beliefs found in this study suggests the need for some revision in the therapeutic approaches made to the psychological problems of people expressing such beliefs.

INTRODUCTION

The belief in magical causation of diseases prevails in many current day societies, particularly those which have not adopted the scientific, mechanistic viewpoint predominant in the Western world. The culture of Mexico is deeply imbued with magical beliefs and they are found to some extent among the Mexican-American population of Tucson, Arizona. The existence of these beliefs among the Tucson inhabitants became an important factor when an effort was made to provide psychiatric care for the lower income levels through a public outpatient clinic. It was apparent from the number of palm readers, fortune tellers, psychic counselors, and amateur healers that there were disease beliefs which were being perpetuated and acted upon and which represented systems of thought that were not in accord with the modern understanding and treatment of psychopathology. The result of this conflict in disease systems could be seen in the reluctance of the Mexican-American community to make use of the psychiatric facility and in the expectations and resistances of those who did become involved in psychotherapy. Behavior of this sort on the part of an Anglo-American patient would have been interpreted as an aspect of his illness, but the question arose as to whether this might be, in the Mexican-American, the product of stress-free learning of culturally defined concepts. It was to this problem that the present study was addressed.

The setting for this problem was the establishment of a mental health clinic in Tucson during September, 1961. The Southern Arizona Mental Health Clinic was created to provide diagnosis and treatment for emotional problems of the psychiatrically indigent (those in need of psychiatric care who were unable to afford it) in Tucson and southern Arizona. Supported by a grant from the National Institute of Health and financial and material help of the Arizona State Hospital and the Mental Health Association of Pima County, the Clinic anticipated a large number of Mexican-American patients. This subcultural group comprises 16.7 per cent of the Tucson population according to the United States Census (1960) and occupies, for the most part, the lower income brackets.

When very few Mexican-Americans made use of the Clinic, the possibility that they were using neighborhood curers and folk medicine was considered. Field work by the Clinic's anthropologist verified this (Holland, 1963), though the extent of such practices was difficult to determine. Three disease beliefs are prevalent among these people that appear to be particularly important in terms of their psychological implications. These are mal ojo, mal puesto, and embruajado. These diseases, which will be described later, share the quality of magical causation; that is, they are believed to be brought on in a person by witchcraft, evil powers, occult rituals, or other mystic sources beyond the knowledge and control of the victims. Those who believe in them think the diseases are outside the realm of modern medicine and unresponsive to such treatment. On several occasions, patients suggested that one of these diseases was responsible for their difficulties. Attempts to dispel these beliefs with explanations and reassurances met

with little success. Before they could be dealt with as defensive maneuvers, the possible cultural implications had to be resolved. As cultural variables have been recognized as vital considerations in the medical care extended to different societies (Clark, 1959; Linton, 1956; Saunders, 1954; and Wallace, 1961), here, also, knowledge of the meaning of these magical beliefs is essential to effectively deal with the emotional problems of this subcultural group.

HISTORY AND BACKGROUND

The Mexican-American population of Tucson numbered 35,722 in the 1960 United States Census. Of this number, 5,575 were born in Mexico, largely in the northwestern part of that country. The majority were first or second generation descendants of Mestizo immigrants from the same area. They came from rural settings or small villages for the most part and were poorly educated peasants who had worked as either unskilled or semi-skilled laborers. As citizens of Tucson, their living conditions are improved but as a whole they continue to occupy the lower positions in the socio-economic strata.

The median education for Mexican-Americans over 25 years of age was 8.1 years of school completed and 80 per cent of them had less education than the median of 12.1 years for the total population of the city. The median income per family was \$4,735 for the Mexican-Americans as compared with \$5,703 for all families in Tucson.

The expansion and development of Tucson has followed a consistent pattern in which the Anglo-Americans have lived and moved to the east and north of the center of the city while the Mexican-Americans have occupied the southern and western areas. A study by Lennhoff (1962) has shown that as members of the Mexican-American community adopt more of the Anglo-American culture, they tend to move to neighborhoods occupied by other Mexican-Americans with similar cultural orientations. Lennhoff (1962) and Holland (1963) have described the

various stages of acculturation within this population and classified them into three major groups.

Those Mexican-Americans who retain most of the characteristics of the Mexican culture are referred to as the "conservative" group. Their living conditions are the poorest, they have the least education, and their income is the lowest of the three groups. They are deeply committed to extended families and are cautious in dealing with people outside of a rather limited range of associations. Religious beliefs and folk lore have a prominent place in their lives, and they view their illnesses and misfortunes from these perspectives. The largest number of Mexican-Americans is found in the "traditional" group whose members are in various stages of acculturation. This group embodies a great variety of cultural orientations and combinations of values and beliefs. They are economically better off than the "conservative" group and are more often employed as semi-skilled or skilled workers. Many in this group vacillate between superstitious and modern concepts of illness and personal experiences. The remaining group consists of those who have most thoroughly adopted the Anglo-American culture. This "assimilated" group is similar in most respects to the middle class Anglo-Americans of the city. They value education, obtain better employment, and have a standard of living comparable to the median of Tucson. The nuclear family replaces extended family ties and participation in the greater community is more frequent. Scientific and formal knowledge take the place of superstition and folk lore and modern medicine replaces religious and magical rituals in the treatment of illnesses.

Lennhoff (1962) has sectioned the city into areas inhabited by the groups exhibiting these various levels of acculturation. The regions display socio-economic features consistent with the orientation of the groups which occupy them. Median income, for example, varies from \$3,885 for the region of "conservative" orientation, to \$5,121 for the "transitional" group area, and is found to be \$6,002 for the region occupied by the "assimilated" Mexican-Americans. Lennhoff characterizes these areas as differing primarily in their "insulation" from the Anglo-American culture. The "conservative" area she describes as being isolated and finds this particularly true of the barrios found there. The barrios are neighborhoods which are considered informal units by the Mexican-Americans. They are sometimes defined by a church parish or housing development and the inhabitants identify themselves with and give certain loyalty to these barrios. The geographic location of these various areas displays an interesting feature. In almost every instance, "transitional" regions are located between the "conservative" areas and the regions occupied by the "assimilated" group. Lennhoff suggests that in this physical arrangement, the "transitional" areas act as buffers and tend to maintain the isolation of the "conservative" group from the Anglo-American culture.

The magic disease beliefs of these groups are of primary interest in this study. Foster (1953) has catalogued many of the beliefs and practices of the Spanish and Spanish-American people and finds that they represent a composite of "... native indigenous, Spanish folk, and ancient and medieval formal medical concepts (that) have combined to form a vigorous body of folk medicine which plays a functional part in

the everyday lives of the people and which will resist the inroads of modern science for many generations" (1953, p. 217). This is an accurate description of the disease beliefs of a large segment of the Mexican-Americans living in Tucson. Ample evidence for this can be found in the large supply of herbs stocked by several of the pharmacies serving the Mexican-American community and used by them in their traditional curing procedures. The role of the curandero or curer appears to be very active and again reflects the vitality of these beliefs.

Mal ojo, mal puesto, and embrujado, as well as many other disease concepts of the Mexican-Americans, do not represent clearly defined entities. In contrast to the specificity of modern scientific medicine, Mexican folk diseases have a large number of possible etiologies, symptoms, and remedies. Translated into terms of the Western medical tradition, almost the complete gamut of organic and psychological disorders have been attributed to these magical beliefs. This heterogeneity has been observed by Clark (1959), Foster (1953), and Saunders (1954) and somewhat frustrates efforts to classify and investigate these diseases. The procedure used by these writers, and followed in this study, has been to group the concepts into three divisions: 1) those which are thought to have physical causation, 2) diseases brought on by emotional states and experiences of the sufferer, and 3) magical disease concepts in which some occult power of another person is responsible for the malady. It is in this latter group that mal ojo, mal puesto, and embrujado fall, and they

constitute the major beliefs of this type among the Mexican-Americans of Tucson.

The most widely recognized magical belief is that of mal ojo and it is perhaps better defined than the other two. It is generally thought to affect children and is indicated by such symptoms as fever, diarrhea, vomiting, crying, and loss of appetite and weight. Mal ojo is believed to be cast by someone possessing *vista fuerte* or "strong vision," taking place when an adult looks at a child with a covetous glance. Such glances are more likely to occur when the adult is frustrated in his desire to hold the child and thus a precaution observed by parents is to have anyone who admires their children also touch them. The individual who casts the mal ojo may be unaware of the fact and have no malicious intent. As a safeguard against such unconscious harm, some people say "God bless you" to children which also negates the evil effects of mal ojo. It is also believed by some people that the person inflicting the mal ojo will later suffer a headache, but that there is no way of knowing that this is the cause of the discomfort.

Embrujado means to be bewitched and is thought to result from a spell or hex cast on the victim by a bruja or witch. Symptoms range from almost any physical discomfort or impairment to the occurrence of an unfortunate event. The person usually believes that the witch uses an item that they have owned or touched to cast the spell. Strands of hair and pieces of fingernails are thought to be particularly useful for these purposes, and in recent years photographs of the victim are popular hexing symbols. Arguments, jealousy, and frustrated love

affairs are popular motives that people feel their enemies have for causing them harm. Those who are strongly committed to such beliefs frequently practice preventive magic to ward off the witchcraft they fear will result from interpersonal conflicts.

Mal puesto is a concept that is difficult to express in English but might best be translated as "maladjusted." As with embrujado, there are many possible indications of mal puesto, and it often is impossible to distinguish between them. Sometimes the distinction is made that while in embrujado one's enemies seek the help of a witch to cast the spell, in mal puesto the enemy himself inflicts harm by placing something in the victim's food or drink or acts as the agent through some other direct contact. The magic substance or procedure can be obtained from a witch or in other instances might simply involve using herbs and well-known rituals. In both embrujado and mal puesto, the diagnosis of the infliction and its appropriate cure are thought to be the domain of the curandero or bruja.

These beliefs provide so much freedom for individual interpretation and application that there is little merit in a more detailed description of them. However, the psychological implications of such beliefs are of basic concern. In each of the three diseases the original source of the malady is attributed to some person other than the victim. Clark (1959) has described how Mexican-Americans generally do not feel responsible for their ailments, taking offense when it is suggested that they have been negligent in caring for themselves. In the magical diseases, this responsibility is not simply avoided but rather placed on someone who has wished them ill or has exerted an unconscious

power to do harm. Viewed in terms of the psychological orientation of Western scientific thought, such distortions of reality would be classified as projective thinking. The psychological function of magic disease beliefs has been described by Honigman (1954, p. 285).

Quite possibly, communities that strive very hard to eliminate the expression of all hostility in interpersonal affairs also promote considerable guilt or anxiety in members who are unable to avoid hate impulses. The socially patterned mechanism of projection brings belief. The person who is unhappy because he is burdened with forbidden hate, projects hostility on another member of the community, the witch. Witches, then, are projections of the fear of one's own hostile impulses.

These observations, made about African tribes and the Pueblos, offer an explanation of the role of magic disease beliefs in the personality structure of Mexican-Americans. Maintenance of these beliefs would then indicate the use of projection as a defense mechanism.

First described as a defense mechanism by Freud (1896), he elaborated this concept in a classical discussion of paranoia (1911, p. 452), "An internal perception is suppressed, and, instead, its content, after undergoing a certain degree of distortion, enters consciousness in the form of an external perception." Freud expanded the concept of projection in several other settings, one being in Totem and Taboo (1912) where projection was ascribed a basic role in the formation of religious and magical beliefs.

In a survey of psychoanalytic concepts, Sears (1943, p. 156) stated, "Probably the most inadequately defined term in all psychoanalytic theory is projection." Some experimental work has been done since this observation was made (Bellak, 1944; Bramel, 1963; Cameron,

1943; Lindzey, 1950), but projection remains a widely accepted but little explored concept.

The term projection has gained great usage through the role it plays in a form of psychological test. Projective tests are composed of relatively unstructured stimuli to which the subject is asked to respond. The assumption is made that the stimuli are, to a certain degree, neutral and that the subject's responses are therefore significant indications of his dynamics which he has projected into his replies. This form of projection was also observed by Freud (1912, p. 108).

But projection is not specially created for the purpose of defence, it also comes into being where there are no conflicts. The projection of inner perceptions to the outside is a primitive mechanism which, for instance, also influences our sense perceptions so that it normally has the greatest share, in shaping our outer world.

In this early statement, Freud indicated his recognition of the different functions the various forms of projection serve.

The two uses of projection described above have much in common and Bellak (1950) has attempted to develop a "psychoanalytic psychology of personality" based on these "apperceptive distortions." Such a global treatment is neither essential nor useful in the present consideration of projection but the distinctions Bellak makes between the defense mechanism and the perceptual distortion will clarify their usage. Defensive projection differs from other perceptual distortion in its function of dealing with unacceptable feelings and thoughts. As a consequence, defensive projection is always concerned with material which arouses strong, unpleasant affect. To preserve the protective aspect of defensive projection, the mechanism is rarely recognized as such by

the individuals engaged in it. Perceptual distortions caused by the projection of non-threatening feelings more often involve an awareness of the process. A final difference can be found in the frequency of occurrence of the two forms of projection. Given the assumption that all perception is altered by previous experience, the occurrence of defensive projection will generally be less frequent since areas of conflict would not typically constitute the major portion of an individual's existence and not all conflicts would be dealt with by projection. An exception might be found in a paranoid person whose defensive projections have become systematized into elaborate distortions that dominate his perception of the world.

Unless otherwise specified, projection will be used in the remaining discussions to indicate the defense mechanism. The dynamics of this defense mechanism have been explored by Sears (1936, 1937) and will be used here to clarify the term. Sears saw two forms of defensive projection and labeled them 1) projection of the object and 2) projection of the subject. In the first form, an individual feels that other people are critical of some aspect of his behavior which he may or may not recognize as a valid part of his personality. These qualities are ego alien and often will be denied; it is possible, however, that the person is aware of these negative characteristics. In either case, projection of the object involves an unjustified concern that people are judging the individual in the same harsh manner that he, at some level, is judging himself. Projection of the subject entails the inordinate awareness of faults in other people that are actually characteristic of the projector. Knowledge of this

unacceptable trait, as it applies to him, is usually repressed. The person sees other people afflicted with the very quality which he cannot accept in himself. It should be noted that these mechanisms can be found in everyone's behavioral repertoire and are common modes of defense. They are only viewed as pathological when they dominate an individual's functioning to the gross distortion of reality.

The previous discussions suggest two primary sources of magic disease belief. As cultural phenomena, they may be seen as harmonizing with other beliefs and conforming with the general configuration of the culture involved. As psychological products, they indicate defensive maneuvers used by individuals to cope with personal stress. Still another possibility is that the psychological structure, and hence the selection of defenses, is determined by the cultural setting. Exploration of these possible foundations for magic disease belief requires a careful consideration of the roles personality and culture play in the determination of human behavior. The following section will attempt to examine the relationships and meanings of these broad concepts.

PSYCHOLOGICAL AND ANTHROPOLOGICAL ORIENTATIONS
TO PERSONALITY AND CULTURE

The meaning of magical disease beliefs has been considered in the foregoing discussion in terms of psychological mechanisms or cultural learning. This implied dichotomy oversimplifies a very complex relationship in the determination of human behavior. The position for the multiple determination of behavior has been well stated by Kluckhohn and Murray (1948, p. 63).

A balanced consideration of "personality in nature, society, and culture" must be carried on within the framework of a complex conceptual scheme which explicitly recognizes, instead of tacitly excluding, a number of types of determinants. But it must also not be forgotten that any classification of personality determinants is, at best, a convenient abstraction.

While most social scientists would acknowledge the validity of these statements, the majority continue to limit their work to the traditional lines of their fields. Psychology, for the most part, has concerned itself with the study of man within a narrow range of cultural variation. In these confines, there have been frequent shifts in the popular mode of thought and a host of theories has been entertained, but little agreement has been reached on the composition and functioning of personality. When, on occasions, the added perspective of cross-cultural research has been sought, it has more often confused than clarified issues. While these statements appear to minimize the significant contributions of social psychology, it takes but a brief inspection of the psychological literature to recognize that the bulk

of personality studies ignore the cultural dimension.

Anthropology has made a greater investment in the field of culture and personality and over the past few decades has amassed sufficient material and interest to create a recognized area of specialization. From the early work of Benedict (1934, 1938) to the recent studies of Hallowell (1951, 1956), Clark (1959), and Spindler (1955), the techniques have improved and conceptual frameworks have been refined. There are several critiques and reviews of this area (Barnouw, 1963; Honigman, 1954; Kluckhohn, 1954; Lindesmith and Strauss, 1950), and their evaluations of concepts bearing on this inquiry will be summarized and considered later. Anthropology has demonstrated greater freedom in making excursions into related social sciences and has benefited by the enrichment of its concepts and the expansion of its methodology. This has not led, however, to harmony and precision in its conceptual framework nor consensus with regard to basic postulates. The concepts of personality and culture share many qualities, not the least of which is the difficulty which psychology and anthropology have in defining these basic terms. An attempt will be made to establish working definitions of personality and culture by surveying their usages within the fields of psychology and anthropology.

Psychological Approaches to Personality

Personality has been a lively and much disputed subject throughout the history of psychology. So divergent have been the theoretical points of view that it might seem their only common denominator has been the complex creature involved in these endeavors - man viewing himself

and others. Considered broadly, theorists appear to be struck by several limited aspects of man's functioning, which they then elaborate into the basic units for understanding the whole of his complex behavior. Personality has been seen as a composite of drives, an aggregate of learned responses, a perceptual system, a cognitive process, an organizational force, an integrative tendency, an awareness of experience, and a product of social forces, to briefly acknowledge some of the major orientations. Assessing these varied approaches is an extremely difficult task. A set of standards can be defined to evaluate them as Hall and Lindzey (1957) have done but the preference shown for a particular theory probably more often depends on the meaningfulness it has for the individual in terms of his professional orientation and training.

The task here will not be to resolve this confusion but to establish a position with regard to personality that will clarify its relationship to culture. As Guilford (1959, p. 2) has stated, "There is no one correct definition, all others being wrong." Rather, it seems appropriate to define personality in terms which are consonant with the use to which it will be put. The problem previously formulated requires a clarification of the personality-culture interaction and both concepts will be dealt with from this standpoint. Guilford (1959, p. 2) also states, "The understanding of a selected definition is more adequate if we can compare it with other definitions." To this end, the various approaches taken to personality and to culture will be considered and evaluated for their usefulness in the present undertaking.

In the past, psychological definitions of personality have often been of the omnibus type in which a variety of elements were described and the concept was dealt with by enumeration. The organization and interrelationship between elements were often less important than determining the composition of personality. Frequently mentioned as essential components in these definitions were needs or drive states. Freud's theories, as the greatest influences on this area, placed central importance on instincts and their interaction with what he saw as certain regularities in childhood experience. While recognizing that the environment could alter the course of development, he considered this secondary in importance to the inborn needs. Freud felt that the latter were the prime movers of man; he viewed personality as a mechanical system of forces and counter-forces. His theory, though thorough and well thought out, was a closed system and data from other cultures which might have offered new perspectives were forced into the same mold. Alexander (1956, pp. 426-427) states that Freud

... under the influence of the nineteenth century's scientific tradition, was too biologically oriented. He postulated a too elaborate, biologically predetermined instinctual structure which, in its main features, unfolds in a more or less autochthonous manner, like a flower.... Those psychological factors which he discovered as all-important ... are not necessarily universal but are of prime importance only in our present culture and may even be lacking in other cultures. Freud, not noticing the cultural determination of family attitudes, assumed that all these psychological factors are biologically determined; he overlooked their local nature.

Despite these criticisms, it must be recognized that Freud contributed many insights about the motivational structure of man that were utilized in later, culturally oriented theories.

The growth of anthropology and sociology reflected and contributed to the emergence of increased interest in the significance of environmental conditions and their impact on man; he came to be viewed as a product of his society as well as a biophysical organism. Needs originating in the biological processes continued to have a prominent place in theories but increasing stress was placed on drives which were a consequence of social experience. Perhaps the father of this movement was Alfred Adler who first broke with the Freudian concepts to advance social interest and individual striving for superiority as determinants of behavior. An attempt to wed "organic traits" with social forces was also made by Murphy. The biological elements appear to have priority in his statement (Murphy, 1947, p. 641), "... the ultimate elements in personality structure are the needs or tensions," but he maintains that once these are "canalized" by social factors, they can no longer be distinguished from the total field in which they are found. While many theories view the majority of man's motives as elaborations of a few basic drives or needs, Murphy believed that there are a large number of organic tensions which are satisfied by aesthetic and motor activities. This greatly increases the scope of inborn determinants.

Maslow also found a genetic substrate for personality. In his view, there were particular dispositions inherent in the individual (Maslow, 1954, p. 340).

... man has an essential nature of his own, some skeleton of psychological structure that may be treated and discussed analogously with his physical structure, that he has needs, capacities and tendencies that are genetically based, some

of which are characteristic of the whole human species, cutting across all cultural lines, and some of which are unique to the individual.

The needs, he felt, had varying degrees of priority and could be arranged in a "need hierarchy." Under given conditions, the individual attempts to meet the need which has the highest potency. The environment plays a great part in determining the satisfaction of needs and the structure of personality. According to Maslow (as quoted by Hall and Lindzey, 1957, p. 326), "This inner nature is not strong and overpowering and unmistakable like the instincts of animals. It is weak and delicate and subtle and easily overcome by habit, cultural pressure and wrong attitudes toward it." Maslow believes man is capable of having a happy and rewarding life when he satisfies his needs but considers this state threatened by the harmful distortions imposed by society upon his native predispositions. Karen Horney (1942), in somewhat similar fashion, postulates the development of "neurotic needs" from the experience of trying to solve disturbed interpersonal relations. It can be noted that a definite shift from a biological endowment to a sociocultural interaction exists in these conceptualizations of needs.

Erich Fromm established still another position by viewing man's needs as inherited but not biologically determined. In his words (Fromm, 1955, p. 25), "The understanding of man's psyche must be based on the analysis of man's needs stemming from the conditions of his existence." Further, these needs have become embedded in human nature by the specific qualities of man as he relates to the world around him. Fromm believes that these strivings are satisfied in the social context

in which one lives and suggests certain uniformities common to all cultures. These uniformities in social interaction, then, are Fromm's concept of needs.

Kurt Lewin finds the concept of needs to be inadequate for the complexity of the human drive states. He views them as highly individualistic, transitory and infinite in number. His criticisms are expressed in this statement (Lewin, 1951, p. 280), "The problem of the emergence of needs lies at the crossroad of cultural anthropology, developmental psychology, and the psychology of motivation. Its investigation has been hampered by premature speculative attempts to systematize needs into a few categories." The dissatisfaction with the concept expressed here is related to the level of abstraction involved in its use. This criticism is particularly appropriate to the early biological conceptualizations of personality which disguised the multi-faceted determinants with gross over-generalizations. Most current theories utilizing need concepts (Cattell, Maslow, Murray, Murphy, etc.) attempt to define a complex system in which the individual is seen as something more than a passive agent responding to a limited number of drives.

The definition of personality to be advanced here will recognize needs as integral components, with the greatest emphasis being placed upon their cultural modification and elaboration. They will be thought of as motivating forces arising from both the biological demands of man as an animal and the acquisition of goals and aspirations from a cultural environment. It should be noted that the biological needs are affected by the cultural context in which they are found

and do not represent universal entities in form of expression nor in relative importance. Consistent with the trend towards more dynamic conceptualizations, these motivating forces will be seen as highly abstracted behavioral descriptions with intricate interrelationships and origins. Those consistencies that are seen in human needs, as a result of man's biological structure and common social experiences, will be considered the skeletal framework upon which the culture imposes its form and the individual develops his own unique integration. The de-emphasis of needs will be in accord with the importance given to cultural influences and the individuality of personality development.

The influence of childhood experiences on the formation of personality has been given prime importance by Freud, Dollard and Miller, Murray, Sullivan, and others. This emphasis stems from the belief that the adult personality structure is formed in the early years and that an understanding of this structure can only be achieved through knowledge of the formative period. Freud in particular was concerned with the perseverance of these early experiences and viewed the adult as forever threatened by youthful traumas and destined to relapse into infantile modes of behavior when more mature functioning failed. The other theorists mentioned, being more environmentally oriented, have also seen childhood as a crucial period but their concern has been with the acquisition of behavior patterns, role expectations, and cognitive sets. This reveals an interest in the learning which takes place in children and not the unfolding of innate tendencies. This socio-cultural view is congruent with the orientation of this study.

In contrast, Allport, Lewin, and Rogers are among those who share the belief that there is a discontinuity between the child and the adult and that the latter has capacities and characteristics beyond the mere elaboration of childhood forms of behavior. They would contend that the adult is more influenced by factors in the present and prospects for the future than by events in the past. When viewing the heterogeneity of man cross-culturally, it becomes apparent that the individual's understanding of the present and the basis for his expectations of the future are both founded upon his lifelong experiences in his environment. The developmental phase will therefore be considered critical for comprehending adult personality and a socio-cultural approach to this process will be taken. This does not deny that later experiences can alter the early formative influences and that the continuity with childhood which does exist will often be partially concealed by mature roles and expectations. While cultures provide changing frames of reference for the individual as he advances in age, significant and enduring self perceptions and modes of expression are incorporated in the early years when the child learns his culture and his place in it.

Inquiry into the learning process has had a large impact on psychology and personality theory, no less than other areas, has been considered as a product of this process. Most prominent have been the efforts of Dollard and Miller (1950) to unite psychoanalytic theory with sociological and anthropological concepts and express them in terms of Hullian learning theory. Their major contribution has been in the process of personality development as defined by the acquisition

of motives and habits, with recognition of the cultural setting as providing the specific conditions for learning. This position achieves a transcultural generality by focusing on principles of human behavior rather than limiting itself to descriptions of particular products of these processes. This can be a handicap when departing from abstract theoretical considerations to more specific, real-life phenomena. In such situations, the relevance of cultural variables is unavoidable and must be appreciated to give meaning to the content of learning.

Allport and Cattell have also included learning as an important part of their theories and Lewin has made some contributions of his own to this area. For the most part, however, theorists have accepted the learning process as a given condition and focused their efforts on elaborating other characteristics. The position taken here will be similar in that it recognizes the significance of learning to personality formation without subordinating other determinants. The stature given to cultural variables in this study, in fact, relies to a great extent on the operation of learning processes, in that the latter account for the impact of culture on the personality. Learning is both a mechanism through which personality is developed and a necessary condition for the existence and perpetuation of culture.

It has been pointed out in a previous discussion of projection (p. 10) that efforts have been made to utilize perception as an explanatory key to personality formation. Bellak (1950), Smock (1956), and others have elaborated the concept within the psychoanalytic framework while many writers (Bruner and Krech, 1950; Erikson, 1954; McClelland and Atkinson, 1948; Werner and Wapner, 1949; Witkin et al., 1954; etc.)

have used perception as an adjunct to understanding other theories and dimensions of personality (perceptual defense, need achievement, field dependence, etc.). The wide use of projective tests indicates an implicit acceptance by many psychologists of the relevance of perceptual functions to personality variables. Combs and Snygg leave little doubt about their conviction with regard to the centrality of perception (1959, p. 20), "All behavior, without exception, is completely determined by, and pertinent to, the perceptual field of the behaving organism." Eriksen (1963), reviewing this area, believes that increased interest over the past 15 years in perception as related to personality has resulted in improved understanding of the ego-defense mechanisms. He further speculates that they will offer continued progress in the future and will be particularly important in the measurement of these mechanisms.

Generally, perception has come to be thought of as a process that is functionally altered by particular personality traits. The processes, in turn, tend to modify the data received by the person to harmonize with the existing personality structure. It is this selection and distortion of the external environment that makes it possible to arrive at inferences about the personality structure of the individual. Culture is among those variables which shape the personality structure and thus mold perception. As with learning (p. 21), perception will be seen as a mechanism through which personality is formed and which imposes certain characteristics upon the interaction of the individual with the environment. These mechanisms appear to be inherent functions of the human organism and would be expected in all

societies. Such consistencies impose very few restrictions upon the variety of responses to and understandings of human experiences, as attested to by the varied content of cultures. The universal existence of these mechanisms is an assumption widely held and is recognized in the definitions of culture and personality used in this study.

The complexity of all that is implied by the concept personality provides an infinite variety of conceptualizations for terms used to describe it. Nowhere is this more evident than with regard to the numerous ways in which the term self has been employed. From the early formulations of William James (1890), the concept has taken on the subtle variations of Hilgard's (1949) "inferred self," Sarbin's (1952) "empirical selves," and Snygg and Combs's (1949) "phenomenal self." Some clarity has been brought to this confusion by distinguishing between two general classes of definitions. Hall and Lindzey (1957) and others classify self concepts into those that refer to the self as an object (consisting of attitudes and feelings about oneself) and those which mean self as a process (psychological phenomena such as thinking, remembering, and perceiving). The second category is often labeled "ego" but there is no consistency in this usage.

It should be noted that theorists who give this concept primary importance tend to place both meanings in prominent roles. For example, Roger's (1951) "self," Cattell's (1950) "self and self sentiment," Allport's (1955) "proprium," and Adler's (1935) "creative self" all exhibit qualities of both the perceiver and the process. Freud, Jung, Murray, and Sullivan were less concerned with self concepts and tended

to stress the process or control quality in their writings. Jung and Sullivan did recognize the self as a perceived entity to some degree. Only a small minority of theories (i.e. Eysenck and Dollard and Miller) have not integrated a self concept into their formulations.

In a culturally oriented theory of personality, it appears appropriate to include the self as an important component and to recognize both of the meanings it has been given. These functions are quite apparent when individuals encounter strikingly different cultures. In such situations, the loss of ability to use the well learned techniques of personal interaction and inability to maintain the previous roles impress upon the individual that behavior and self image are very dependent upon regional conventions. Much of the discomfort of traveling in foreign countries can be attributed to this loss of ability to exert one's self image in different surroundings. Problems of this nature are an important aspect of acculturation and point to the significance of culture in the self functions.

In the foregoing discussions several characteristic approaches to personality theory have been considered and recognized as providing useful descriptions of some aspects of personality formation and structure. The utility of these different approaches supports the contention that theories differ primarily in their perspectives and comprehensiveness rather than in an absolute sense of being valid or invalid. The inability of any one theory to adequately encompass the complex variables relevant to behavioral descriptions and prediction furthers the contention that single modalities cannot be considered the key to such explanations. The lesson to be learned has been amply

documented - though some phase of functioning may be essential and broadly influential for understanding human behavior (i.e. learning, perceptual distortion, self awareness), it is not in itself sufficient to encompass all that is indicated by the concept of personality.

The heterogeneous approach to personality advocated here most closely resembles that of Murray and Kluckhohn. They have stated (Murray and Kluckhohn, 1953, p. 6), "A person is an emergent entity of and in a certain physical, social, and cultural milieu. He cannot be properly represented in isolation from his locale, or from the culture of the group of which he is a member, or from his status (role) in the structure of that group." Adherence to the complex causality indicated by these writers has been attempted in setting forth the characteristics of personality considered relevant for this study.

Personality will be thought of as the individual organization of motivating factors, perceptions of the self and world, and techniques of interacting with the environment. This dynamic organization results from the acquisition of particular aspects of the cultural environment in each person's unique variety of experiences. As this interaction molds the understanding of the world, it modifies the inherent predispositions of the individual. While the dynamic quality of personality remains throughout its existence, the major part of its structure is determined in the early developmental period. Personality then is the potential the individual brings to culture and his unique organization of the things he gains from culture.

Murray and Kluckhohn have speculated on some of the consequences of the inclusion of cultural variables in personality

research. They state (Murray and Kluckhohn, 1953, p. 5), "Students of personality and culture are themselves victims of their own personality and products of their culture. Only recently has a cross-cultural perspective provided some emancipation from those values that are not broadly 'human' but merely local, in both time and space." It was in this spirit that the present study was done and every effort was made to prevent "local" values from distorting the information obtained in this cross-cultural inquiry.

An attempt to develop a theoretical framework for personality that gives particular consideration to cultural variables is not a novel undertaking. Many theorists, such as Fromm, Murray, and Sullivan, have shown the influence of their awareness of social and cultural variables. There has been a growing recognition of the socio-cultural environment and most recent theories pay tribute to these factors, even if they do not assign them central importance. The pervasive interdependence of man with his surroundings has forced the various disciplines studying these phenomena to lessen their efforts toward defining a clearly delineated area appropriate solely to their own field. The growth of interdisciplinary studies demonstrates that an ever increasing recognition of the holistic approach has forced itself upon the sciences. Historically, the jealousy with which each science guarded its own domain gave little prospect that such joint efforts would ever come about. The shift in this attitude seems to have come from the most valid and undisputable source - the data themselves. Traditional viewpoints are deeply ingrained and while there have been encouraging signs that the barriers between the disciplines are being

lowered, this will probably continue to be a cautious enterprise. The greatest impediment lies in the communication problem. Each field expresses itself in a technical discourse that conveys as much meaning by connotation as by denotation. In each discipline, a somewhat distinct system of thought and unvoiced assumptions develop which are needed to speak its language. If the various fields attempt to build a common understanding of man, they must learn to speak each other's language or interdisciplinary endeavors will share the fate of the Tower of Babel. The following discussion of the anthropological definitions of culture will be an effort to translate these concepts into the present frame of reference.

Anthropological Approaches to Culture

The history of the study of culture in the field of anthropology is analogous in several respects with the role personality has played in psychology. Both concepts have undergone gradual shifts in their definitions and had similar trends in their usage. Early definitions of the two concepts were largely influenced by the advances and vigorous activity in the biological sciences. In each case, there followed a period in which an interest developed in particular phenomena specific to the field of inquiry. This in turn led to concern for the patterning and interaction of conceptual elements and finally expanded into the consideration of other relevant fields in the social sciences. Wallace (1961) has speculated that one of the earliest definitions of culture could serve as a "passable" definition of personality. His reference is to Tylor (1877, vol. I, p. 1) who states, "Culture ... is

that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society." Wallace suggests that the term "personality" could be substituted for "culture" and the phrase "the individual" put in place of "man" to arrive at this alternate meaning. Such parallels are common in the study of personality and culture and require the consideration of their similarity and the necessity of making distinctions between them.

In the mid-nineteenth century, when scholars were beginning to gather data and formulate theories which would later constitute the roots of anthropology, the climate of scientific thought was dominated by the comprehensive implications of Darwin's Origin of Species (1859). Evolutionary speculations could be seen in Bachhofen's (1861) description of a sequence of familial descent systems, Bastian's (1860) belief in the psychic unity of man and attempt to delineate the lines along which ideas developed, McLennan's (1865) suggestion that marriage customs advanced through a series of forms and could be detected in customs of the day which were "survivals," and Main's (1861) interest in the manner in which legal practices had changed through history. The most outstanding presentation of the evolutionary school was Tylor's (1871) Primitive Culture. Two other notable contributors of the period were Morgan (Ancient Society, 1877) and Frazer (The Golden Bough, 1890). In this era, culture was seen as a universally applicable process of unilinear development. Data were gathered from a broad range of cultures and assembled to produce an appropriate progression in terms of the values current at the time and in keeping with the

theorist's speculations. Systematic studies were the exception and theories were built upon scant, unreliable descriptions of travelers with varied skills and biases.

The historical school, led by Boas (1896, 1911) reacted against these broad speculations and attempted to give more scientific rigor to anthropology. Their work characteristically defined specific cultural elements, demanded thorough field work, and limited inferences to an ongoing frame of reference. By examining the differences found among cultures, this approach countered the evolutionist concern for vague universal commonalities. The distribution studies of this school were concerned with the diffusion of elements and to determine this, trait lists were compiled to describe areas at different points in time. These lists contained material culture items, kinship terms, language, and folk lore. This atomistic approach came to be criticized (as did behaviorism in psychology) for being overly rigid and lacking in appreciation of the significance of the complex matrix in which elements were found. The reaction to this was the development of organismic and holistic viewpoints which came to be called the "functional" approach in anthropology.

The early 1920's found both Malinowski (1922) and Radcliffe-Brown (1922) utilizing functional analyses in their field studies. Malinowski saw function as the role a system of activity played in the total effort toward fulfilling the needs of man while Radcliffe-Brown viewed function as a social phenomenon and conceived its contribution as being the maintenance of the social structure as a whole. These considerations of function greatly expanded the possible

interpretations given to anthropological data. Linton (1940) listed several categories of function with which the simplest cultural item could be examined. Methods of this sort provided means by which the complexity of interaction of cultural elements could be appreciated and understood. Functionalism thus gave culture a new dimension as well as serving as a focus for several prominent theorists. From this perspective, some saw the need to explain the total configuration of cultures and new explanatory models were advanced to account for this unity.

Considering theories from the standpoint of their attempts to specify the core around which culture is formed, there was a transition from views of physical causation (which included geographical biological, and economic determinism) to ideational causality. In the latter, the locus of cultural continuity has been attributed to a dominant personality structure (basic personality, modal personality, and national character) or to a common cognitive orientation (dominant value orientation, world view, ethos, etc.). Attention came to be focused more and more upon characteristics of the individual and efforts were increasingly confined to a culture rather than culture in the abstract.

A pioneer in the configurational approach was Benedict, whose Patterns of Culture (1934) had a great impact on the study of culture and personality following its publication. Borrowing concepts from Nietzsche and dynamic psychology, she characterized three primitive societies, Pueblo, Dobu and Kwakiutl, as having dominant orientations which were reflected throughout their activities and which clearly set

them apart. The two systems of viewing life's values were labeled "Dionysian" and "Apollonian," the first applying to the Dobu and Kwakiutl, the second describing the Pueblos (primarily the Hopi and Zuni). Benedict (1946, pp. 72-73) describes these orientations broadly.

The desire of the Dionysian, in personal experience or in ritual, is to press through it toward a certain psychological state, to achieve excess. The closest analogy to the emotion he seeks is drunkenness, and he values the illuminations of frenzy ... The Apollonian distrusts all this, and has often little idea of the nature of such experiences. He finds means to outlaw them from his conscious life ... He keeps the middle of the road, stays within the known map, does not meddle with disruptive psychological states.

The polarity of these characterizations has been severely criticized and closer examination of the societies has shown that the applicability of these restricted characterizations was achieved by a tendency to emphasize appropriate qualities and dismiss inconsistent data. Despite these failings, Benedict started a major reconsideration of cultural theory by suggesting that meaning could be found in the complex variables of culture by determining patterned regularities of individuals within the society. Without defining how such orientations came about, she inferred that activities were carried out in harmony with the basic orientation and thus cultural consistency was given causal status. Her later work utilized psychoanalytic theory to explain this uniformity and this integration will be discussed shortly.

The influence of attitudes, values, and beliefs upon individuals impressed many writers as having significance for explaining the unity upon which a cultural configuration depended. Bateson (1936)

saw the "ethos" of a group as such a behavioral determinant. In describing ethos, Bateson (1936, p. 119) states, "They are expressions of a standardized system of emotional attitudes." While acknowledging the existence of temporary and situationally determined ethos, Bateson contends that the culture as a whole can be characterized by a limited number of ethos. In his study of the Iatmul (Bateson, 1936) he found two ethos, one for men and one for women. These were quite different; the male was described as being proud, exhibitionistic, self assertive, and as having intense interactions while the female was reserved, good natured and cooperative. Bateson found that these opposing ethos did not conflict but rather complimented each other and reinforced the sexual differentiation within the culture.

Opler also advanced the notion of multiple integrative principles. He refers to these as "themes" (Opler, 1945) and believes that they represent a dynamic set of "affirmations" which structure the nature of reality in each cultural setting. Formulations such as this permit a greater latitude in coping with the diversity found in even the most simple and homogeneous group. The recognition of sex differentiated ethos by Bateson and the inclusion of interdependent themes by Opler support the view that cultural configurations are complex matrices of related factors, at times complimentary and sometimes conflicting, which impinge in relative proportions on different members of a society as a consequence of their age, sex, occupation, and other characteristics.

One of the most comprehensive configurational analyses of the type just described was that of Redfield (1947) in his description of

the peasant and folk styles of life. The "folk-urban" continuum encompasses such a large number of societies that only the broadest generalizations can be made. Yet he has been able to find numerous global traditions that are applicable to this particular perspective and demonstrates that in their broadest outlines, cultures have certain consistencies and predictable patterns.

A distinctive configurational position was that held by Edward Sapir. To him all cultural behavior was symbolic and it was in the sharing of these meanings that culture could be found. He was impressed with the unconscious manner in which language shaped the individual's perception of the world and provided a relatively common factor which gave a pattern to the society's understanding of the world. He stated (Sapir, 1949, p. 162),

The fact of the matter is that the "real" world is to a large extent unconsciously built upon language habits of the group. No two languages are ever sufficiently similar to be considered as representing the same social reality. The worlds in which different societies live are distinct worlds, not merely the same world with different labels attached.

Whorf (1956) developed this hypothesis with the principal focus on time and space concepts as found in different languages. The ramifications of such divergent understandings of basic dimensions appear great. Significant contributions would also result from this type of analysis applied to the influence of language characteristics on the form of interpersonal relationships and the dominance of particular values and attitudes.

Sapir also made an important contribution toward the consideration of the individual in the study of culture. The popular notion

that culture represented a higher level of abstraction than could be obtained from knowledge of members of a society he felt did an injustice to the important role they played. For in his view (Sapir, 1932, p. 435), "... the true locus of culture is in the interactions of specific individuals and, on the subjective side, in the world of meanings which each one of these individuals may unconsciously abstract for himself from his participation in these interactions." This represents a very cogent argument for the relevance of psychological data. With Benedict's work, this helped set the stage for a period in which anthropologists used personality theories to explain and compare cultural phenomena.

The growing use of personality types as integrative factors in culture studies was largely the result of the incorporation of psychoanalytic theory. The joint efforts of Abram Kardiner, Ralph Linton, and Cora DuBois made significant contributions in this direction. Their seminars in the late 1930's produced The Individual and His Society (Kardiner, 1939) and The Psychological Frontiers of Society (Kardiner, 1945), both landmarks in the culture and personality movement. In these, Kardiner developed the concept of "basic personality structure" in which the primary tenets of Freudian theory were cast in cultural terms. The early years of life were viewed as the primary foundations of personality structure and as the child rearing practices of cultures differed, so did the resulting basic personality structure. The consistencies in belief and practice that characterized child training and family interactions were described as "primary institutions" while the influence of the basic personality on the culture was reflected in

folklore, religious beliefs, and attitudes toward deities. These latter were called "secondary institutions" and were considered as adult elaborations of the structure laid down in childhood. This approach attempted to describe cultures in terms of single, dominant personality structure and based its formulations solely on the effects of childhood experiences that were assumed to be common to all members of the society.

This represented a constricted view of the significant events of life in the eyes of Linton (1949) and he added another class of determinants which he called "status personality." These he thought of as culturally defined expectations for behavior which the individual integrated into his self concept as he encountered various conditions of life. At many points in time, these status personalities changed and reflected the various roles the individual played as a consequence of increasing age, marriage, employment, and other events that had significance in the culture. Linton felt that not all of culture was equally shared. He noted that some aspects of a culture were shared by everyone ("universals") and these contributed to the formation of the basic personality structure of the group. A large part of a culture, however, was not experienced by everyone but only those parts considered appropriate ("alternates") and these he believed were responsible for status personality characteristics. Also, some specific aspects were individually encountered and were not in the accepted formal structure. This represents a theoretical position that makes use of a wide scope of data and successfully integrates personality and cultural dimensions, if only at a general level of analysis. The

collaboration with psychoanalysis broadened the perspectives of those working with Kardiner and led to many fruitful inquiries.

One of the outstanding examples of the field work stimulated by this approach was that done by Cora DuBois in her study of the Alorese (1944). She was impressed by the variation of personality types within this culture and believed there would be a predominance of one of these which could be used to describe the group as a whole. She called the most frequent type "modal personality" which carried with it the implication that there were other personality structures in the society. The techniques used by DuBois in her field work were a significant departure from the traditional methods. In addition to the usual biographical data on individuals, DuBois also obtained psychological data which were later independently analyzed by experts without knowledge of the source of the protocols. The personality descriptions from each of these sources were then brought together and formed a strikingly consistent composite of the Alorese personality. Further methodological improvements were later added in studies such as Gladwin's attempt to obtain representative sampling in his work with the people of Truk (Gladwin and Savason, 1953). The statistical implications of "modal personality" were more in theory than in practice in early studies but increased interest in techniques has introduced refinements in this vital area.

The modal personality concept was utilized in the broad analyses that went under the title "national character" studies. These were, again, attempts to describe a predominant personality type for a society. Nationalities have traditionally been stereotyped and

some of the conviction that these are valid seems to have been part of the rationale behind these characterizations. The variety of descriptions given the American "national character" (Bateson, 1942; DuBois, 1955; Gorer, 1948; Hsu, 1953; Kluckhohn and Kluckhohn, 1948; Spindler, 1955; and Warner, 1949, 1953) has provided ample proof that, while certain patterns appear widely applicable, there are a large number of perspectives in which they can be interpreted and their significance cannot be generalized to the population as a whole. When considering the individual member of society, the relevance of these abstractions is largely overshadowed by the numerous factors not included in these generalizations.

The views of culture discussed thus far have seen it as a relatively static entity. The evolutionist school was interested in change but thought of it as a uniform, progressive development toward certain ethnocentric standards of the day. There has emerged, in recent years, a concern for the processes by which cultures maintain consistency and by which they change. "Cultural dynamics" has historical antecedents in the acculturation studies of American Indians but the new focus has been on the construction of models and hypotheses which reflect regularities in these processes. This has furthered the interest in the individual since he is no longer seen as a passive recipient upon which culture is imposed but rather an active contributor to the culture in which he participates. Consistencies in culture have come to be thought of as the product of processes of maintenance which actively perpetuate aspects of the culture. These tend to conflict with the factors promoting change and the point of equilibrium between these

forces usually represents a structure that is experiencing constant re-orientation. The magnitude of these changes varies considerably with the structure of the culture and its relation to other cultures. An important type of change, acculturation, results from the contact of different cultures; it is highly significant in this study and will be discussed in greater detail at a later point.

Several important trends can be noted in the brief history of culture theory just concluded. Culture has progressively become a more varied and complex concept. The introduction of functionalism and the later concern for personality-culture interactions contributed to this elaboration of culture. These same factors also brought about a change from culture seen as an independent abstraction to a view of it as a dynamic structure intricately related to other types of human phenomena. The increased attention paid to the individual members of a society and the use of psychological variables in describing them have been alluded to in several contexts. A related trend has been the increased tendency to use psychological tests and better formulated research designs and techniques. The use and relevancy of psychological data is, of course, a basic consideration of this study. The position taken here has been well stated by Wallace (1961, p. 1), "... any theory which pretends to explain, or predict, cultural phenomena must include in its formulation non-cultural phenomena. Many of these latter non-cultural phenomena can be subsumed under the general rubric of 'personality.'" Having recognized personality as an essential component in the study of culture, Wallace (1961, p. 23) goes on to suggest appropriate areas of inquiry.

In regard to psychological subjects, per se, a number of traditional areas are relevant: learning, perception, cognitive processes, the structure of affect distribution (a conventional sense of "personality"), and existential phenomenology (the attempt to describe what another person perceives in categories isomorphic with those in which he perceives it).

This list fairly well covers the present approaches to personality taken by psychology and is in accord with many of the observations made in the previous discussions of personality theories as related to culture.

The critics of cultural theories incorporating psychological dimensions have been mentioned previously (page 15). Their observations require consideration in evaluating the personality-culture approach. A frequent criticism concerns the oversimplification of data and the selection of favored variables in the description of heterogeneous groups. This complaint is justified only to the extent that the reduction of multiple factors must be done on the basis of recognized criteria set in the framework of a theoretical orientation. Selection, per se, is a necessary procedure in the systematic investigation of any phenomena. The logical alternative would be an impossible attempt to study all variables and all their relationships at one time. Selection on the basis of convenience or variables chosen in an inconsistent manner can certainly be questioned. The use of hypotheses and scientific methodology permits the exploration and verification of the significance of variables but even this procedure depends upon the tentative choice of specific possibilities.

A complaint related to the matter of selection has been the tendency of the investigator to extend his Western values into the

interpretation of factors in divergent cultures. This is a very difficult error to overcome. Biases were more evident in the early, less cautious descriptions of "primitive peoples" but they no doubt exist to some extent in all cross-cultural analyses. The use of tests and the evaluations of independent experts add a large measure of objectivity and the thoroughness of some research designs reduces this handicap to a minimum.

Many writers have been displeased with the unqualified acceptance of psychoanalytic theory shown by some workers in the personality and culture field. This criticism has most often been directed toward the studies initiated by the early influence of Kardiner and his associates. In a circular fashion, behaviors were sometimes interpreted in terms of psychoanalytic theory and then used to support the universality of the theory. Improved field techniques and a broader acceptance of psychological theories have corrected this constricted orientation somewhat. The psychoanalytic model of personality still dominates the field of personality and culture though a great deal of research in psychology has demonstrated the efficacy of other theories. Their utilization could be brought about by either an increased investment of psychological efforts into the cultural area or by closer collaboration between the two fields.

Other criticisms have been leveled at the methodology of personality and culture studies but these are being met by the continued improvements shown in recent years. Inquiries of this type are exceedingly complex and many of their difficulties arise from the lack of adequate techniques and sufficient information. While the studies may

demonstrate certain failings, the area of personality and culture also shows promise of enriching both parent disciplines.

In this study, culture will be viewed as a complex of beliefs, values and systems of interacting with a society. It will be seen as being deeply enmeshed in the language and acquired in a variety of learning situations. Though cultures show patternings and internal consistencies, it cannot be assumed that all of the individuals taking part in a culture share the same understanding of it. Individuals exposed to a culture integrate those aspects of it which are promoted by their unique background of experiences and which, for the most part, compliment their personality structure.

Integration and Application of Concepts

The major problem in differentiating personality and culture is that they are in part interdependent. Culture provides the setting in which personality develops and tends to promote some aspects of it. Personality, on the other hand, modifies the individual's perception of his environment and influences his response to it. Personality and culture are not mutually exclusive terms but neither does one encompass the other. Some of the separate aspects of personality result from the uniformities of man's potential for response (curiosity, fear, happiness, anger, etc.) and the consistencies of human interaction that are found in all cultures (nurturance, conflict, cooperation, competition, etc.). Areas of culture also exist that are independent of personality such as many of the habits of everyday life that distinguish one society from another. In brief, then, it might be said that personality

and culture each display a certain amount of autonomy while at the same time they interact and mutually influence each other. The previous statements indicate a general way of understanding these concepts and do not constitute a formula by which specific aspects of human experience can be accounted for by personality or cultural dimensions. This must be done by investigating the phenomena and this study is such an effort to establish the place of magic disease belief in the personality and culture framework.

The relationship of magic disease belief to psychological processes and cultural orientation will be undertaken by measuring these variables in a sample of the Mexican-American population. The personality dimension investigated will be the defense mechanism of projection. It has been chosen as the most plausible personality factor which would account for such beliefs (page 9), but it must be recognized that other personality variables might also be appropriate. Such possibilities would have to be evaluated by further research. Variations in cultural orientation will be measured by determining the level of acculturation of the informants. This will be accomplished by evaluating the major elements in an individual's background in which cultural orientation is learned. Comparisons of these variables will determine the relationship of magic disease belief to projection and cultural orientation.

The previous discussion of personality and culture suggests three possible bases for magic disease belief and this study will examine these three hypotheses: 1) Magic disease belief is an expression of the psychological defense mechanism of projection which uses

these beliefs to disown and distantiate negative affect and self perceptions; 2) these beliefs are culturally determined and reflect a way of understanding the world which is unrelated to personal stress or dynamics; and 3) cultural orientation determines the structure of personality and the magic disease beliefs are both a product of cultural experience and a means by which personality characteristics are expressed.

METHOD

A questionnaire (Appendix A) and a psychological test (Appendix B) were constructed to obtain information on the three variables under consideration: magical disease belief, use of projective defense mechanisms, and cultural orientation or acculturation. Separate forms were made for males and females and a random sample of 100 residences occupied by people with Spanish surnames was compiled from United States Census (1960) tract information and the Tucson City Directory. It was originally planned that 50 of these addresses would be used to contact Mexican-American males and the remaining 50 would locate female informants. The male Mexican-Americans proved to be so suspicious and resistive to the interview that the male inquiries were discontinued and the female sample was enlarged. Limiting the research to females did not alter the basic design of the study and does not significantly restrict the conclusions to be derived from the data. This will be considered further in the later sections.

A large amount of practical information had been gathered about the Mexican-American population of Tucson in previous studies done by the Psychology and Anthropology Departments (Tharp, Holland, and Meadow) of the University of Arizona. In addition, several pilot studies were done on small samples of this population to test and modify the procedures and materials used in this inquiry. The results of these preparations will be included in the following descriptions.

Previous research efforts made it clear that Anglo interviewers did not develop sufficient rapport with Mexican-Americans to enable them to obtain personal information nor receive adequate cooperation with psychological testing. This was particularly true when the interviewers did not speak Spanish and when they were not the same sex as the respondent. To avoid these problems, bilingual Mexican-American university students were used to conduct the interviews. One boy and two girls, all of whom lived in the Mexican-American community, acted as interviewers and spoke the language preferred by the respondents. The importance of the interviewer's cultural origin and familiarity with the language was noted in the data gathered on two occasions. In the first, Anglo interviewers, speaking English, found less than five per cent of those they questioned about magical diseases admitting any knowledge of them. In contrast, a Spanish speaking anthropologist acquainted with the community recorded over 30 per cent belief in these same diseases. In keeping with the traditional reserve of these people, it appears that they became less reluctant to admit magical beliefs as they perceived the interviewers as being closer to their own cultural orientation. It was the impression of the female interviewers that they did indeed meet with warm and spontaneous cooperation and it is felt that their participation significantly improved the meaningfulness of the data.

The interviewers introduced themselves to prospective informants and explained that they were engaged in collecting information about the general health of people in that neighborhood. When additional information was sought, the interviewers were told to reply

accordingly. The interviewers were told to be cordial, good listeners, and not to insist on information if the person was reluctant to give it. The only restriction placed on informants was that they be 18 years of age or older. The female interviewers, of course, approached only female respondents.

To put respondents at ease in discussing the magical diseases, this information was asked after a discussion of their experiences with a variety of other illnesses. This was intended to give the impression that the magical diseases were accepted by the interviewers as just one more form of affliction. As part of the general discussion of health, questions were asked about four disease concepts common in the Mexican culture (empacho, caida de la mollera, bilis, and susto). This questioning served both to demonstrate the interviewer's acceptance of Mexican disease concepts and to provide information about the informant's own orientation in this area. The three magical diseases of primary importance have already been discussed and these were inquired about after considerable time had been spent sharing the person's views and experiences with health. The magical diseases were approached as three plausible sources of difficulty for an individual.

Responses to the questioning about magical disease beliefs were recorded in categories reflecting the amount of belief and experience with them. The assumption was made that an informant experiencing the disease or describing one of her family so afflicted would have a higher degree of belief than one who had not had such experiences but recognized the possibility. Categories were also provided

for those who doubted the beliefs, those disbelieving them, and the replies indicating that they had never heard of the diseases.

Material pertinent to the level of acculturation was obtained in the next section of the interview. The five areas investigated in this measure were 1) the length of residence in the United States, 2) the cultural background of the parents, 3) educational experience of the informants, 4) the cultural characteristics of the neighborhood in which they lived, and 5) the frequency of the use of Spanish in the home. It was assumed that these factors sufficiently encompassed the background of an individual to determine the extent of his involvement with the American and Mexican cultures and, therefore, his level of acculturation.

The cultural background of the parents was sought by inquiring about their place of birth and the length of their residence in the United States. Educational experience was evaluated in terms of length of schooling and the country in which it was obtained. The classification of cultural areas by Lennhoff (1962) was the basis for describing the type of neighborhood in which the informants lived. The fifth factor was quantified by determining the proportion of time that Spanish was used in the home. Questions about age, employment, income, and religion added to the descriptive material but were not used directly in establishing the acculturation measure. In assigning values to the five factors, a thoroughly Mexican orientation was used as the point of reference and values were given for environmental situations which would lead to an exposure to and adoption of the Anglo-American culture.

The final part of the interview was devoted to administering the test for projection. A survey of psychological tests failed to reveal a standardized test for projection per se. The Pa scale of the Minnesota Multiphasic Personality Inventory (Hathaway and McKinley, 1940) is obviously related to projection, but it also contains a variety of other factors (Harris and Lingoes, 1955). This indicated a need for a new test to measure the specific dimension of projection. Further support for the construction of a new test came from the fact that it was to be used with a particular group whose cultural orientation would cast doubt on the applicability of the usual norms which are derived from the standardization of Anglo-American samples of the population. It was known that some of the informants would not know how to read either Spanish or English and this restricted the format of the test.

The Rorschach and Thematic Apperception Test have been most frequently used in cross-cultural studies (Kaplan, 1961), where the interest has been in the derivation of broad personality descriptions. It had been found through previous experience with Mexican-Americans that their protocols on such tests were quite sparse and often limited to brief descriptive statements. The concern in this inquiry was a specific personality function that often would not be tapped in constricted protocols.

The test that was constructed used ten cards from the Thematic Apperception Test (Morgan and Murray, 1935) as visual stimuli. Several people of the Mexican-American community were asked to sort all of the T.A.T. cards into 3 classes; those which most closely resembled their

cultural group, cards without any noticeable orientation, and those which were seen as portraying Anglo-American people and scenes. The set of ten cards was chosen from pictures that had been sorted as being most like Mexican-Americans (T.A.T. cards numbered 2, 3GF, 4, 5, 7GF, 8GF, 9GF, 10, 12F, and 17GF). In each of these pictures, a female figure appears and stories were constructed that were appropriate to the scenes. This constituted the female version of the test. A set of ten pictures was also chosen for the males and stories created for them. These will not be described since this phase of the study did not prove feasible.

The stories that were constructed for the pictures were drawn from the stress situations encountered in clinical contacts with Mexican-American females. The stories involved a variety of situations and heroines of different ages, marital status, and appearance (Appendix B). Since the stories were to be read to the women, an effort was made to keep them simple, short, and interesting. Four questions were devised to be asked at the conclusion of each story. They required a simple yes or no answer and referred to how the informant thought the heroine might have felt or thought. The original versions of the stories were read to seven Mexican-American women and they were then interviewed to determine their comprehension and responses to the stories.

Initially the procedure for administering the test had involved presenting a picture at the beginning of each story for the respondent to look at while the story was read and the questions asked. The pre-test interviews disclosed that this method inhibited the listener's

ability to become engrossed in the story. The women reported that when given the picture, they would begin making associations of their own before the story had unfolded sufficiently to establish an identity for the figures and a plot for the situation. This, in turn, led to confusion when replying to the questions since the individual's own interpretations provided additional and nonverbalized bases for answering. The procedure was changed so that the pictures were presented at the conclusion of the stories and the respondents looked at them only while answering the questions. No reports of spontaneous stories or confusion were found with this method of administration. The pilot studies also led to the modification of some of the stories, in most cases resulting in a simplification of the plot or a change in wording to provide greater clarity.

By design, the stories and pictures did not fully delineate all of the consequences of the plots. This permitted the listener to project (used here in its widest meaning) herself and her expectations into the situations being described. Each of the stories involved a stressful event which was left unresolved. Two of the four questions which followed referred to the possibility that the heroine would be thinking or feeling in a manner which would indicate her use of a projective defense mechanism. The projective questions were created to reflect in those who endorsed them, projective thinking as previously defined (page 11). The order of appearance of these projective questions was counterbalanced and the phrases introducing the questions were also distributed so that there was no difference in the sequence

or format of these items as compared with the equal number of questions not designed to be significant.

The validity of projection as measured by this test was established by submitting it to a panel of experts. The judges on this panel were 15 experienced clinical psychologists who were asked to estimate the inferred defensive projection of all of the questions. The evaluations were independently done with a standard set of instructions (Appendix C) which oriented them to the meaning of projection used in this study. They were not told which items were designed to indicate projection nor did they know the number of such items in the test. Following the evaluation of questions, the experts were asked to give their impressions of the test, their opinions about the general usefulness of psychological tests, and other factors pertinent to their judgmental biases. The results of the panel's evaluations were used to determine which questions would be considered significant for measuring projection.

Bilingual presentation of the questionnaire was not difficult for the interviewers but the projective test required careful and accurate translation to retain the subtle meanings necessary for the interpretations made from it. Two translators were given English versions of the stories and asked to convert them into Spanish. One of these translators was a woman of Mexican extraction who had been born and raised in the Mexican-American community of Tucson. She had completed high school and appeared quite adept in both languages. In terms of acculturation, her way of life and values reflected some impact of the Anglo-American culture but not predominantly so. The

second translator had recently arrived in the United States and her knowledge of English (and to some extent, Spanish) was influenced by her college education. The choice of these two translators was made on the assumption that where one would provide local idioms and style, the other would be more responsive to fine distinctions in meanings. These two Spanish versions of the test were then given to a third translator for comparison. This third translator, also a Mexican-American woman, had lived in Tucson all of her life, attended the University there, and had worked for some time as a secretary in the Mental Health Clinic. Her ability and experience made her particularly qualified for this task and she was quite sensitive to the meaning and intent of the stories and questions. After discussions with her concerning the meanings of different phrases and constructions, her suggestions were incorporated into a final revision of the other translations.

RESULTS

From the initial random sample of 50 residences whose inhabitants had Spanish surnames, 46 interviews were completed. As has been noted (page 46), the male Mexican-Americans were so suspicious and uncooperative that efforts to obtain data on them was discontinued. The first female sample showed that only one respondent out of three expressed belief in the magical diseases. Interviews were continued beyond this original group until 30 respondents were found with some degree of magic disease belief. A total of 84 interviews were conducted. To the 30 interviews of those who believed in the magic diseases were added the first 30 interviews obtained from non-believers, and the data on these 60 respondents were then analyzed to test the significance of the differences between the two groups on the variables under consideration.

The female interviewers found the women very cooperative; some of the interviews lasted over one and one-half hours. The majority of them were completed in 30 to 40 minutes and some as quickly as 20 minutes. Some of the interview questions were difficult for the respondents to answer, but they seldom showed any reluctance to give the information they had available. All but four of the respondents chose to speak in Spanish and the interviewers complied with this preference.

Informant Characteristics

The ages of the women were evenly distributed between 18 and 50 years of age (Table 1), with an increasing decrement in the older

TABLE 1
AGE DISTRIBUTION FOR TOTAL SAMPLE

Ages	Number of Women
18 - 29	13
30 - 39	15
40 - 49	14
50 - 59	10
60 - 69	6
70 - Over	2

age groups. The mean age of the group of informants with magical disease beliefs was 43.6 years, while the mean for non-believers was 39.6 years of age. The standard deviations of the two age groups were 14.5 and 12.6, respectively, which analysis showed to be insignificant, $F = 1.32, p > .05$. A comparison of the means revealed no significant difference, $t = 1.1, p > .05$, so no relationship between age and magical disease belief was indicated.

All but two of the respondents acknowledged belief in the Catholic religion. One of these belonged to an Apostolic faith and the other was a member of the Presbyterian Church. Fifty-four of the

women were housewives, four worked (sales clerk, hospital attendant, beauty shop operator, and baby sitter), and two reported being unemployed at the time of the interview. One respondent was described as speaking Spanish "poorly" but all others spoke it "fairly well" or better. Ability to speak, read, and write English was not tabulated since these judgments were made on the basis of self ratings and had no common criteria for comparison. Ability to read and write Spanish were excluded for similar reasons. Other response characteristics will be described as their contributions to the measurement of magical disease beliefs, acculturation, and projection are given.

Construction and Comparison of the Major Variables

The responses to magical disease beliefs is shown in Table 2. The response categories were assigned values to indicate their relative intensity of belief. The first two categories were given the value of three and represented strong belief in a disease. The following categories were assigned values of two and one, representing lesser belief, and the last two responses were given the number zero to denote an absence of belief. The intensity values for each of the three diseases were then summed for each respondent to give a total intensity value for these beliefs. The maximum value was nine, representing strong belief in all three magical diseases, and the minimum value of zero indicated no belief in these diseases. The number of respondents obtaining these total intensity values is shown in Table 3. This table also shows the magic disease belief groups into which the distribution was divided. From group A (with no beliefs)

TABLE 2
 FREQUENCY OF MAGIC DISEASE BELIEFS AND
 ASSIGNED INTENSITY VALUES

Response Category	Magic Disease Beliefs			Assigned Intensity Value
	Mal Ojo	Mal Puesto	Embrujado	
Had it	5	2	4	3
Family had it	2	0	0	
Believe in it	11	13	11	2
Doubtful	6	7	7	1
Do not believe	34	36	37	0
Never heard of	2	2	1	

TABLE 3
 FREQUENCY OF TOTAL MAGIC DISEASE BELIEF INTENSITY VALUES
 AND FINAL COMPOSITE GROUPING

Sum of Values for Three Diseases	Number of Respondents	Composite Group
0	30	A
1	2	
2	7	B
3	3	
4	4	
5	5	C
6	5	
7	1	
8	1	D
9	2	

to group D (with strong disease beliefs), the classification reflected a composite of the intensity of belief in the three magical diseases. The equal number of believers and non-believers is a product of the research design and does not indicate their frequencies in the population. In all of the interviews conducted for this study, 36 per cent expressed belief in magical diseases.

The test of projection (Appendix B) was evaluated by 15 experts who represented a variety of theoretical orientations in clinical psychology. A test item was considered significant when at least ten of the judges stated that it indicated the use of projection. Of the 20 items designed to measure projection, 17 met this criteria. Items judged as projective by two or fewer judges were classified as non-projective. There were also 17 of these items. Six items were judged projective by more than two of the experts but did not achieve recognition by the required majority and were classified as undetermined since their meaning was ambiguous. The three items originally designed to measure projection which did not receive the required support of the judges fell in this undetermined category. The frequency with which items received the varying number of expert judgments as projective is shown in Table 4.

An evaluation sheet (Appendix C), completed by each judge after rating the items, provided information about their reactions to the test. The first question asked for general impressions of the test and replies most often mentioned the simplicity and consistency of the stories. This was not considered advantageous by one judge who thought the stories might be too simple to clearly establish the

TABLE 4

EXPERT JUDGMENT OF TEST OF PROJECTION

Number of Items by Frequency of Judgment
and Resulting Classification

Number of Judgments as Projective	Number of Items by Classification		
	Projective	Undetermined	Non-Projective
0	0	0	10
1	0	0	4
2	0	0	3
3	0	1	0
4	0	0	0
5	0	1	0
6	0	0	0
7	0	2	0
8	0	1	0
9	0	1	0
10	4	0	0
11	1	0	0
12	4	0	0
13	4	0	0
14	4	0	0
15	0	0	0

structure for making decisions about the projective meaning of the items. One expert felt that the stories might be too complex. A statement by a psychologist engaged in research in physiological correlates of psychopathology indicated his difficulty in orienting himself to the style of the test. The reservations about the general quality of the test were limited these three statements.

When asked if any of the stories were confusing, three of the judges indicated that this was true of story number four (Appendix A). While this was the only story described as confusing, the strength of this criticism was not sufficient to discontinue the use of the story in the test. Confidence in the test's ability to measure projection was determined on a five point scale. Ten judges indicated the middle response of "some confidence," two expressed a higher level of confidence in the category "much confidence," and one marked his reaction as between these two responses. The remaining two experts indicated less favorable opinions by endorsing the category "little confidence." Attitudes toward the test of projection were given perspective by inquiring about opinions with regard to psychological tests "at their best." On an identical five point scale, seven judges replied in a manner which indicated as much confidence in the test of projection as they had for other psychological tests. Seven other judges rated tests in general as being worthy of slightly more confidence. One expert expressed greater confidence in the test of projection than in other tests. The confidence expressed in the test of projection was moderately correlated, $r = .49$, with that attributed to tests in general. This suggests that some of the opinions expressed

reflected general orientations to testing and were not specific to the test being considered.

The judges were asked how difficult it had been to use the definition of projection specified in the instructions. "Occasional" difficulty was noted by seven experts, four indicated that it was "somewhat" difficult, one thought it was "easy," and three considered it "very easy." Reactions to a question about how difficult it had been to evaluate the items for their projective significance were closely related to the previous responses, $r = .76$. Those judges finding the definition of projection easy to use also tended to have little difficulty interpreting the items. Five judges found item evaluation "somewhat" difficult, seven said it was "occasionally" difficult, two stated that it was "easy," and one thought it to be "very easy."

The judges were asked if they felt their familiarity, or lack of familiarity, with the Mexican-American culture influenced their ability to evaluate the test. Only one judge indicated that this was a significant factor. He stated that his familiarity with the culture made the stories more realistic and he felt this improved his interpretations of the items. When asked if there was another test which might measure the projective dimension of personality, no judge reported knowledge of such an instrument. In the final question, the judges were asked to indicate how often they found patients using projective mechanisms. There was one response of "very often," ten observed it "frequently," two saw it "occasionally," one "seldom" encountered it, and one stated that he did not use it as a frame of reference in considering patient's behavior.

The general responses of the informants to the test of projection are shown in Table 5. A response bias in the "yes" direction can be seen in these figures which differs according to the type of item. The projective items were given yes answers 58 per cent of the time, while the non-projective items were endorsed 69 per cent of the time. The difference in responses to these two classes of items was evaluated by a median test. The median number of endorsements for all items was 38, and an analysis of the number of projective items given

TABLE 5
SUMMARY OF RESPONSES TO TEST OF PROJECTION
BY ITEM CLASSIFICATION

Type of Item	Number of Responses		
	Yes	No	Total
Projective	595 (58%)	425 (42%)	1020
Non-Projective	702 (69%)	318 (31%)	1020
Undetermined	230 (64%)	130 (36%)	360
Total	1527 (64%)	873 (36%)	2400

more and less yes responses, as compared with items above and below the median in the non-projective group, revealed a large difference in the response to these two types of items, $\chi^2 = 10.3$, $p < .01$.

A projection score was determined for each respondent by summing the number of projective items endorsed. The distribution of these scores was divided into three levels of intensity (Table 6) and the individuals were assigned to these group values for later analysis. Though the "yes" response bias was less prominent in the projective items, the possibility that it was increasing the endorsement of projective items was considered. To compensate for this, an alternate scoring system was devised. The "yes" response frequency for non-projective items was used as a measure of the general bias in this direction for each individual. The endorsement of projective items was then compared with this figure. This was done by making a ratio of the two values in which the number of "yes" responses to projective items was divided by the number for non-projective items. Since there were 17 items in each category, the value obtained gave the proportionate number of projective endorsements with the response to non-projective items as a base. For convenience, these values were multiplied by ten and reduced to whole numbers. The distribution of the alternate scores (Table 7) was then divided into three groups as had been done with the initial scores. This correction for the "yes" bias altered the score distribution somewhat but the two systems were quite similar, $r = .66$. The groups into which the projection scores were consolidated were also very similar as shown by a chi square value of $\chi^2 = 25.8$, $p < .001$. The extent of the relationship was shown by a contingency coefficient of $C = .55$ with a maximum value of .816 for a three by three table.

TABLE 6
DISTRIBUTION OF PROJECTION SCORES AND ASSIGNED GROUPS

Projection Score	Number of Subjects Obtaining Score	Assigned Group
0	0	
1	0	
2	1	
3	1	1
4	2	
5	2	
6	7	
7	2	
8	5	

9	4	
10	7	2
11	12	

12	5	
13	3	
14	4	3
15	0	
16	2	
17	3	

TABLE 7
DISTRIBUTION OF ALTERNATE PROJECTION
SCORES AND ASSIGNED GROUPS

Alternate Projection Score ^a	Number of Subjects Obtaining Score	Assigned Group
1	0	
2	0	
3	1	
4	4	I
5	2	
6	6	
7	11	

8	9	
9	7	II

10	10	
11	5	
12	0	
13	2	
14	1	
15	0	III
16	0	
17	1	
18	0	
19	0	
20	1	

a. $\frac{\text{Number of Projective Endorsements}}{\text{Number of Non-Projective Endorsements}} \times 10$

The reliability of the test of projection was determined by administering the test a second time to 12 of the informants five months after the initial presentation. The projection scores obtained on the second administration were very similar to those obtained the first time, $r = .80$.

The acculturation data were quantified in a manner so that increasing numerical values were given to those environmental factors which promoted the acquisition of the American culture. The five factors which comprised the acculturation measure were parental influence, length of exposure to the American culture, type of neighborhood in which they lived, educational background, and the use of Spanish in the home.

The parental influence was determined by the birthplace of the father and mother. Information regarding the length of time the parents had lived in the United States would have added to the significance of this factor, but many of the informants did not know how long their parents had lived in this country. The fathers of the informants had been born in Mexico in a majority of the cases (33), as was true for the mothers (31). No points were given when both parents were born in Mexico or other South American country. If the father was born in the United States, one point was given and if the mother was born in this country, two points were given. Greater value was attributed to the mother's birthplace in recognition of her larger influence in raising the children. An informant with American born parents was thus assigned three points on this factor of the acculturation index.

The length of personal exposure to the United States culture for informants was determined by the relative length of residence in this country. Those who had spent less than one-third of their life in the United States were not given a point on this factor. Those who had lived there from one-third to two-thirds of their lives were credited with one point and those living there longer were given two points. Another measure of exposure to American culture was found in the type of neighborhood in which the informant lived. Informants living in "barrios" (page 6) were considered the most isolated from American culture and not given points for this factor. Inhabitants of traditionally Mexican areas who did not live in barrios were considered less isolated and assigned one point. Those informants residing in transitional areas and neighborhoods classified as Anglo-American were given two points.

The education factor was determined by the number of years of schooling and the country in which it took place. For eight years of education or less in Mexican schools, no points were given. Education beyond the eighth year in Mexico was credited with one point. Exposure to eight years or less of American schooling was assigned one point and education beyond that was given two points.

The use of Spanish in the home was quantified by giving no point to an informant who reported using it frequently or all the time. One point was credited to those who spoke it half the time or less.

The five components of the acculturation index, when quantified and totaled, comprised a scale with values ranging from zero to

ten points. The distribution of the informants on this index is shown in Table 8. The distribution was divided into four groups (Table 8) which indicate progressive levels of acculturation.

Comparisons of the major variables were done by using chi square analyses to determine the significance of the relationships and the contingency coefficient to estimate the extent of the correlations. The distribution of the disease beliefs required a reduction in the number of units to meet the restrictions of the chi square statistic. This was accomplished by dichotomizing the dimension into those who had magic disease beliefs and those who did not. The comparison of magic disease belief with level of acculturation is shown in Table 9. The relationship between these variables was highly significant, $\chi^2 = 22.8$, $p < .001$, and their correlation was indicated by a value of $C = .52$. Magic disease belief was compared with the number of other traditional diseases (page 47) acknowledged, and this data is shown in Table 10. It was found that those who believed in the magic diseases tended to recognize more of the other traditional beliefs, $\chi^2 = 18.6$, $p < .001$, $C = .49$.

Belief in magic diseases was contrasted with scores on the test of projection (Table 11) and they were not found to be significantly related, $\chi^2 = .13$, $p > .90$. The scores on the test of projection were also compared with the acculturation index. In this analysis, the acculturation measure was reduced to two levels to accommodate the requirements of the statistic. The data on these variables, shown in Table 12, gave no evidence of a relationship between them, $\chi^2 = 3.28$, $p > .10$.

TABLE 8

DISTRIBUTION OF SCORES ON THE ACCULTURATION
INDEX AND ASSIGNED GROUPS

Total Acculturation Points	Number of Respondents Obtaining Score	Assigned Group
0	0	
1	1	
2	4	a
3	5	

4	7	
5	4	b

6	7	
7	9	c

8	12	
9	7	d
10	4	

TABLE 9

COMPARISON OF MAGIC DISEASE BELIEF
AND LEVEL OF ACCULTURATION

Magic Disease Belief	Acculturation Level			
	a	b	c	d
Believers	10	9	6	5
Non-Believers	0	2	10	18

$$\chi^2 = 22.8 \quad df = 3 \quad p < .001 \quad C = .52$$

TABLE 10
COMPARISON OF MAGIC DISEASE BELIEF AND RECOGNITION
OF OTHER TRADITIONAL DISEASES

Magic Disease Belief	Number of Other Traditional Beliefs Acknowledged				
	0	1	2	3	4
Believers	2	4	4	5	15
Non-Believers	9	11	6	1	3

$\chi^2 = 18.6$ df = 4 p < .001 C = .49

TABLE 11
COMPARISON OF MAGIC DISEASE BELIEF AND
INITIAL PROJECTION MEASURE

Magic Disease Belief	Initial Projection Group		
	1	2	3
Believers	8	13	9
Non-Believers	12	10	8

$\chi^2 = .13$ df = 2 p > .90

TABLE 12
COMPARISON OF LEVEL OF ACCULTURATION AND
INITIAL PROJECTION MEASURE

Acculturation Level	Initial Projection Group		
	1	2	3
a and b	4	9	8
c and d	16	14	9

$\chi^2 = 3.28$ df = 2 p > .10

Similar analyses were done using the alternate scoring system. The scores of the two measuring systems were quite similar, $r = .66$, but the correction factor did appreciably alter some of the individual scores. These changes did not sufficiently improve the correlations between the projective measure and the two other main variables to make them significant. Table 13 shows the comparison of the magic disease belief with the alternate projection measure, the chi square value for these variables being $\chi^2 = 2.54$, $p > .20$. The comparison of acculturation and the alternate projection measure is seen in Table 13 and here, also, the relationship is not significant, $\chi^2 = .08$, $p > .95$.

The relationship between magic disease belief and acculturation was further examined by individually comparing the five components of the acculturation measure with the magic disease beliefs. In all of these comparisons, the number of units in the acculturation dimensions were reduced to two unless this was the original number as in the case of the language component. This resulted in uniform two by two contingency tables with a consistent (maximum) value for the contingency coefficient of $C = .707$. Neighborhood type did not give any indication of being related to the magic disease beliefs but all other components had highly significant chi square values, $p < .01$, and contingency coefficients suggesting moderate to large relationships.

TABLE 13

COMPARISON OF MAGIC DISEASE BELIEF AND
ALTERNATE PROJECTION MEASURE

Magic Disease Belief	Alternate Projection Group		
	I	II	III
Believers	15	7	8
Non-Believers	9	9	12

$$\chi^2 = 2.54 \quad df = 2 \quad p > .20$$

TABLE 14

COMPARISON OF LEVEL OF ACCULTURATION AND
ALTERNATE PROJECTION MEASURE

Acculturation Level	Alternate Projection Group		
	I	II	III
a and b	8	6	7
c and d	16	10	13

$$\chi^2 = .08 \quad df = 2 \quad p > .95$$

TABLE 15
 RELATIONSHIP BETWEEN ACCULTURATION INDEX
 COMPONENTS AND MAGIC DISEASE BELIEF

Acculturation Index Components	Relationship with Magic Disease Belief	
	Chi Square Value	Contingency Coefficient
Origin of Parents	9.8*	.37
Time in U.S.	7.9*	.34
Neighborhood Type	0	0
Education	14.2*	.43
Use of Spanish	10.0*	.38

* $p < .01$

DISCUSSION

The data in this study represent the personality and cultural characteristics of a sample of Mexican-American women chosen for their variations in belief in magic disease concepts. The restriction of the study to female informants does not alter the theoretical implications of the results. The reticence of the Mexican-American males was anticipated and the use of a Mexican-American interviewer was an effort to penetrate this traditional reserve. The suspiciousness of the Mexican male is well documented. Ramos (1962, p. 64) states, "The most striking aspect of Mexican character, at first sight, is distrust. This attitude underlies all contact with men and things. It is present whether or not there is motivation for it." Similar observations have been made by Paz (1961, p. 30), "Our relationships with other men are always tinged with suspicion. Every time a Mexican confides in a friend or acquaintance, every time he opens himself up, it is an abdication." These descriptions appear to be as applicable to the Mexican-American men of Tucson as they are to Mexican men.

The men were so much more reluctant than the women to participate that qualitative as well as quantitative differences may have existed in their reasons for not cooperating with the interviewers. The extreme suspiciousness suggests a greater use of projection by the men. If this is the case, the magic disease beliefs may have different meaning for the men and may be related to their personality dynamics.

Verification of this hypothesis must wait until some means is found of studying this elusive group.

In contrast, the women contacted were very cooperative and this is attributed in part to the good rapport established by the female interviewers. The women discussed their illnesses freely and many anecdotal accounts of the magic diseases accompanied the expression of belief in them. The intensity of belief reported by the women was quite similar to that found in a previous survey (Tharp, Holland, and Meadow). Strong belief was reported in mal ojo by 28 per cent of the people interviewed in the survey and by 30 per cent of the informants in this study. No belief in this disease was indicated by 56 and 60 per cent of the two samples, respectively. Such consistencies suggest that the frequencies reported are accurate representations of the beliefs in the Mexican-American population of Tucson.

The test of projection received a decisive confirmation of its validity by the experts. The evaluation of items was moderately uniform and their classification as measures of projection was sharply delineated. Of the six items falling in the undetermined category, three were items that had initially been designed to measure projection but had not received sufficient recognition as such by the experts, and three were created to be neutral but were found to have qualities of paranoid thinking to which the judges occasionally responded. The respondents as a whole answered the two classes of items differently, endorsing the projective items less frequently, and repeated administration found the projection scores to be consistent. The uniform opinion of the experts, the clear distinction in informant responses

to judged items, and the reliability of these measures, constitute substantial evidence for the validity of the test as a measure of projection.

The acculturation index represented the sum of values assigned to five aspects of the individual's cultural background. Cultural orientation is a complex and multi-faceted variable, and there were no criteria against which the components of the acculturation index could be validated. The apriori values assigned to the components of this measure were evaluated by comparing them with magic disease belief (Table 15) with which the index as a whole was significantly related (Table 9). From this analysis, it was found that "neighborhood type" had not contributed to the relationship between the larger variables. It was also apparent that the component "use of Spanish," which had been assigned one point, demonstrated a larger relationship to the disease beliefs than "origin of parents," which represented three possible points on the index. The apriori weightings of the components were not an accurate indication of their relative significance for the magic disease beliefs. It is worthy of note that the component which gave evidence of the greatest relationship to magic disease beliefs was "education." The importance of the cognitive aspect of magic disease belief indicated in this relationship is consistent with other findings in the study.

The hypothesis that magic disease belief is an expression of the psychological defense mechanism of projection was not supported by the analysis of these data. Confirmation was obtained for the hypothesis that magic disease belief is determined by cultural

orientation and reflects learning of cognitive approaches to phenomena not related to personal stress. The final hypothesis, that cultural orientation determines the structure of personality and that the magic disease beliefs would be relevant to both variables, was not supported by the data. The projection measure was not found to be related to either cultural orientation or magic disease belief. Traditional disease with emotional and organic bases, the use of which had no implications for personality structure, were found to be acknowledged significantly more often by those with magic disease beliefs. This suggests that the magic disease beliefs are part of a larger system of concepts dealing with the explanation of pathology and misfortune in general.

The cultural basis for magic disease belief indicated by the results of this study has important implications for the larger problem of the relationship of personality and culture to other phenomena. The early attempts to delineate these concepts as distinct entities have been discussed and the current view can be found in these words of Kluckhohn (1954, p. 962), "... we can consistently and explicitly recognize the interdependence of cultural and psychological phenomena." This interdependence has become such a focal point that some writers consider the concepts as analogous and representing different perspectives of the same phenomena. The vast amount of work being done in the area of modal personality and national character studies reflects this tendency to see psychological and cultural variables as inextricably entangled. The magic disease beliefs lend themselves to such a formulation, as has been noted previously (page 9). This description

of how cultural patterns predispose the use of certain psychological processes is typical of the interdependent constructs found in modal personality presentations. Honigman (1954) views the fear of witches as the result of projection and relates them both to the cultural suppression of hostility and the consequent guilt or anxiety felt by individuals in the group. While this may be an accurate representation of the cultures he is considering, the present study does not provide evidence for the psychological basis of witchcraft beliefs in Tucson's Mexican-American women.

The specificity of magic disease belief to cultural orientation suggested in this study does not reject the possibility that other phenomena might be related to both personality and cultural variables and that they are interdependent. What these results do indicate is that personality and culture are also found in some instances to be relatively independent, that concepts such as modal personality are not adequate to encompass all that can be described in terms of personality and culture, and that the bases of phenomena are specific to different cultures and are possibly variant within a culture.

The implication of these statements for anthropology is that the recognition of personality and cultural interaction should not be generalized to the point that all cultural variables are seen as psychologically significant. Hartman, Kris, and Loewenstein have noted that anthropologists (1951, p. 29)

... tend to draw conclusions from observed behavior to underlying motivations and neglect frequently, paradoxically enough, to take into account that in different environments similar impulses may find different expressions ... what reality means

to the individual, what opportunity for direct discharge processes it offers, and which defenses it encourages, has to be taken into account when we refer to environment or reality in a context in which psychodynamic hypotheses are being used.

The complex relationship of personality and cultural factors is increased by this possibility that a specific phenomenon may not exhibit a relationship between the two factors. As Kluckhohn (1954, p. 923) has stated, personality and culture "... interpenetrate but each also has independent status as a system." Psychology can thus offer insights into the meaning and form of some cultural materials, but it is not a universally applicable aspect of these phenomena.

The conclusions from the data suggest the need for wider acceptance of anthropological material in the psychological field. Personality variables are often thought to be universal and not influenced by differences in culture. This study has indicated that in some cases the cultural context may be the basis for what appears to be psychologically determined, even when evidence from other cultures supports such a supposition. Kluckhohn (1954, p. 956) suggests that, "The main positive use to psychologists of conceptual models of cultures is that they specify for psychologists the behavior (including ideational behavior) which is traditional or expected in a given group or subgroup." Not only should there be an increased awareness of the possible relationships of culture to psychological variables, but the function of culture in and of itself bears consideration.

These observations are particularly appropriate for work being done in mental health agencies. The practical problem which initiated this study is but one of a host of similar problems confronting those

who attempt to evaluate and treat the emotional disturbances of people from different cultural settings. Saunders (1954) has given a sensitive treatment to the problems inherent in treating the medical problems of the Mexican-Americans. In brief, his view is that (Saunders, 1954, p. 209), "If Anglo medicine is to serve effectively urban Spanish-speaking populations, those giving the service need to have some awareness of the range, extent, and implications for behavior of possible cultural differences, and of the desirability of making modifications in their programs to allow for such differences." While the need for these modifications in the medical setting is highly desirable, it would appear to be an absolute necessity in the field of psychological problems and treatment. This study has not provided specific recommendations for change, but it has indicated that a better awareness of the influence of cultural diversity lies in a familiarity with the general characteristics of the culture involved and a knowledge of the individual's specific cultural background.

The meaning of magic disease beliefs in Mexican-American women in Tucson has been found to be culturally significant. To the extent that these beliefs interfere with the treatment of their emotional problems, efforts should be directed toward revising their understanding of illness or aspects of the belief system might be incorporated into the treatment program. This latter possibility requires greater ingenuity but would probably be more successful. However these differences are resolved, it has been demonstrated that a particular effort must be made to learn how a member of another culture understands himself and

the world before attempting to aid him through therapeutic systems that are traditionally ethnocentric.

APPENDICES

Appendix A. Cultural Questionnaire

ADDRESS _____

DISEASE EXPERIENCE AND BELIEFS

COLDS _____	INJURIES _____	DETAILS:
FLU _____	MUMPS _____	
FRACTURES _____	VALLEY FEVER _____	
BURNS _____		

EMPACHO _____	CAIDA DE LA MOLLERA _____	BILIS _____	SUSTO _____
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MAL OJO		MAL PUESTO	
Had it _____		Had it _____	
Family had it _____		Family had it _____	
Do believe in it _____		Do believe in it _____	
Doubtful _____		Doubtful _____	
Heard of / don't believe _____		Heard of / don't believe _____	
Never heard of _____		Never heard of _____	

EMBRUJADO		TREATMENT	
Had it _____		None _____	
Family had it _____		Home remedy _____	
Do believe in it _____		Patent medicines _____	
Doubtful _____		Non-paid curers _____	
Heard of / don't believe _____		Paid curers _____	
Never heard of _____		Mexican doctors _____	
		Anglo doctors _____	
		Hospital _____	

SPANISH

Ability to -

Use in the home -		Speak	Read	Write
Always _____	As native _____			
Frequently _____	Quite well _____			
50 % _____	Fairly well _____			
Less _____	Poorly _____			
Never _____	None _____			

<u>ENGLISH</u>	Ability to -			AGE _____
	Speak	Read	Write	
As native	_____	_____	_____	EDUCATION _____
Quite well	_____	_____	_____	EMPLOYMENT _____
Fairly well	_____	_____	_____	MONTHLY INCOME _____
Poorly	_____	_____	_____	
None	_____	_____	_____	

BIRTHPLACE _____ TIME IN TUCSON _____ TIME IN U.S. _____

FATHER'S BIRTHPLACE _____ TIME IN U.S. _____

MOTHER'S BIRTHPLACE _____ TIME IN U.S. _____

RELIGION _____ FAMILY NAME _____

Appendix B. Test of Projection

Instructions, stories, and questions read to informants as part of the structured test for projection.

I am going to read some stories to you. At the end of each story I will show you a picture of what is happening. While you look at the picture, I will ask you a few questions about what one of the people in the story might be thinking. Answer yes if it seems to you that the people would be thinking that way and answer no if it seems to you that they would not be thinking that way.

This is the first story.

1. A girl is sitting holding her doll while her mother reads to her. The mother notices that the girl is not listening and asks her what is the matter. The girl is thinking about a toy that she and a friend stole from a little child in the neighborhood. She knows that if she tells what happened she and her friend will get into trouble. Her mother often punishes her when she has done something wrong.

Answer yes or no to these questions about what the girl might be thinking.

- a. Does the girl say to herself, "I should not have taken the toy"?
- b. Is the girl thinking, "My mother knows that I have done something wrong"?
- c. Does the girl expect her friend to be afraid and to tell on them?

- d. Will the girl say that it was her friend's idea to take the toy?

2. A woman lives with her sister and family. The children like their aunt but wish she did not live with them. She always watches the children and tells them what to do. The oldest girl thinks that the aunt should spend more time helping her mother. In this picture, the aunt has just come into the room and caught the girl doing something wrong. The picture does not show the girl, but what might she be thinking.

- a. Would the girl think that her aunt does not like her and is always trying to get her into trouble?
- b. Does the girl say to herself, "My aunt thinks I am a bad girl"?
- c. Does she expect her aunt to tell her mother?
- d. Is the girl thinking, "It is not fair for my aunt to watch me all the time"?

3. A girl is walking to school. She sees a young man working in the fields. The girl has known this boy for several years and is quite fond of him. She would like to see him more often but can never seem to find a way to do so. There are several other girls interested in him and this girl knows that they flirt with him. The young man's mother is standing nearby and the girl says hello to both of them. She cannot find anything else to say and in this picture she is walking on to school and the boy has returned to work.

- a. Might the girl be thinking, "If I were not so bashful it would be easier to talk to him"?

- b. Might the girl believe that the young man does not like the other girls because they flirt so much with him?
- c. Would she say to herself that his mother thinks she is a timid fool?
- d. Is the girl wondering if the boy's mother came out to the field to see how the girl acts with her son?

4. A young woman is crying because she has just heard about the death of a friend. The friend was killed in an automobile accident while riding with her boyfriend. The last time the girl talked to her friend was several days before this. The friend had talked on and on about her boyfriend. This girl did not like him but she tried not to let her friend know it. After listening to her friend for a while, this girl became impatient and found some excuse to leave. In this picture she is crying and thinking about their last conversation.

- a. Does this girl feel that she should have been more patient with her friend?
- b. Does she wonder how serious her friend had been over this boy?
- c. Is she worried that her friend could tell that she did not like the boyfriend?
- d. Would this girl be thinking, "My friend would have been angry if I had talked all the time about my boyfriend"?

5. A woman is trying to calm down her husband. He is mad because she has given a bill collector the last money in the house. Her husband had told her to save that money but when the collector demanded that she pay him, she gave him the money. In the picture she is trying to explain this to her husband.

- a. Would she say to herself, "My husband thinks I am a coward"?
- b. Does she feel that the collector enjoyed getting the money from her?
- c. Does she think, "That bill collector knew he could get the money from me"?
- d. Is she worried that this will happen again?

6. A young woman lives with her old mother and takes care of her. The other daughters have married and left the home. This girl wonders if she will ever get married. She seldom leaves the house except to do some shopping and she has not seen most of her friends for a long while. She is daydreaming in this picture about what it would be like to meet some new people and to go places. Soon her mother will call her and she will have to go see what she wants.

- a. Does this girl think that her mother is not happy with this living arrangement?
- b. Does she believe she would find a husband if it were not for having to take care of her mother?
- c. Would she think, "My sisters got married just to get away from home"?

- d. Would she wonder, "My sisters do not like me and they do not care if I ever get married"?

7. A woman is welcoming her husband home after he has been away on a trip for several days. She is happy to have him home again. She is worried though, because while he was gone a man visited her. She knew this man before she married her husband and her husband does not like him. If he knew the man had visited his wife while he was gone, the husband would be very mad. In the picture the woman is embracing her husband and wondering if he will find out.

- a. Does she expect that her husband will be able to tell something happened while he was gone?
- b. Might she wonder, "Should I tell him about the visit?"
- c. If her husband finds out about the visit, will she think, "He knows that I was glad that he was gone when the man came"?
- d. Would she think the man will visit her again?

8. An older sister is engaged to a man that her younger sister likes very much. The younger sister has done something to cause her sister and fiance to break up. The younger sister thinks she would be a better wife for this man. In this picture the younger sister is standing by a tree, watching her older sister run along the beach and knows that she is very angry.

- a. Does the younger sister think, "She will find another man she likes as well"?

- b. Might the younger sister feel that her sister is unhappy because the older sister is selfish and wants everything for herself?
- c. Would the younger sister say to herself that this man would not be happy with her sister?
- d. Does the younger sister believe that the older sister should have thought of other people's feelings and not become engaged to a man she knew her younger sister liked?

9. A young woman lives next door to an old woman who is always telling her gossip. The old woman has said that she has heard some bad things about the younger woman's family. In this picture she is trying to figure out how the old woman found out about these things and she is very mad.

- a. Does the young woman expect the old woman to tell the gossip to other people?
- b. Does the young woman wonder if the old woman tells her these things because she does not like her?
- c. Would the young woman think, "The best thing to do is to admit these things are true"?
- d. Does the young woman feel, "The same things are probably true of the old woman's family also"?

10. A girl has gone down to the river to look for a boy who works on the docks. She has only been out with him one time but she likes him very much. She has let him know this and now wonders if she did the right thing. In this picture she has seen the men working at the dock and is embarrassed at having come there looking for the boy.

- a. Does she think that the men know she is looking for the boy and are laughing at her?
- b. Would she believe, "Those men are probably his friends"?
- c. Does the girl think the boy will see her there and come to talk to her?
- d. Is she wondering if the boy will think that she is not a nice girl?

Appendix C. Judges' Instructions and Evaluation Sheet

Instructions for Judges.

This test has been constructed to evaluate the use of the defense mechanism of projection by members of the Mexican-American culture. The test consists of stories which were developed from recurrent themes found in psychiatric and field study contacts with this group. The stories involve situations in which the principle figures are experiencing ego alien feelings, lowered self-esteem, or negative feelings of some description. Some of the distressing quality of the situations is specific to the Mexican-American culture. The purpose of the test was to determine how frequently the subjects would use projection in such situations.

The stories were read to the subjects and they were shown pictures of the events described. At the conclusion of each story, four questions were asked, some of which would indicate the use of projection by the principle figure of the story. You are being asked to read these stories and questions and determine which questions, when answered yes, indicate the use of the defense mechanism of projection. You should consider each question in terms of this criterion: Given the information in the story and picture, would the endorsement of this question lead one to infer that the response was the product of projection?

To provide a uniform basis for judgment, the concept of projection must be defined and limited. For the purposes of this test evaluation, projection should be thought of as 1) the attributing

to others those undesirable characteristics found in the person doing the projecting, and 2) the unfounded belief that others are aware and critical of undesirable aspects of one's self, real or imagined.

It might be helpful to note that these definitions of projection have been described elsewhere as 1) the "projection of the object" ("I see myself as bad," through projection becomes, "I see them as bad") and (2) the "projection of the subject" ("I criticize myself" through projection becomes, "Others must criticize me also").

Projective thinking is frequently associated with the familiar ideas of reference and delusions of grandeur and persecution. For the present task, it would be preferable to consider these as allied phenomena and avoid including them as projective mechanisms.

This is an example of the type of story and questions you will evaluate:

A boy is waiting at the hospital while his father is being operated on. The father was wounded in an accident while he and the boy were hunting. The boy had wanted to shoot the gun but his father would not let him. The boy had been angry at his father and had argued with him. The father would not listen to him and this made the boy even angrier. Shortly after that the accident happened.

- a. In the picture is the boy worrying that his father might die?
- b. Does the boy expect people to blame him for the accident?
- c. Does he feel, "The accident would not have happened if my father had not been so mad"?

- d. Might the boy feel that terrible things are always happening when he is around?

In this example, question c. involves projection of the object (type 1), question b. would be projection of the subject (type 2), and although question d. suggests ideas of reference, it would not qualify as a projective item as here defined.

Spaces are provided for each of the questions for the ten stories of the test. Please place an X in the appropriate space when you believe a question, when answered yes, indicates the use of projection.

ANSWER THE FOLLOWING QUESTIONS AFTER YOU HAVE COMPLETED THE EVALUATION OF THE TEST.

1. What is your reaction to the quality of the stories? (How would you describe them; complicated, repetitious, challenging, etc.?)
2. Were any of the stories confusing? Which ones?
3. Was the test so transparent that a naive subject would detect its purpose? Mark one of the following:
Definitely___ Probably___ Possibly___ Doubtfully___ Unlikely___
4. How much confidence would you have in this test as a measure of projection?
Great___ Much___ Some___ Little___ No___
confidence confidence confidence confidence confidence
5. At their best, how much confidence do you have in psychological tests?
Great___ Much___ Some___ Little___ No___
confidence confidence confidence confidence confidence

6. How difficult was it for you to use the definition of projection given in the instructions?

Very___ Somewhat___ Occasionally___ Easy___ Very easy___

7. How difficult was it to evaluate the questions for their inferred use of projection?

Very___ Somewhat___ Occasionally___ Easy___ Very easy___

8. Do you feel your familiarity (or lack of familiarity) with the Mexican-American culture affected your ability to judge the use of projection? If so, how?

9. Is there another test that you believe would have given a better measure of projection?

10. How often do you find patients using projective mechanisms?

Very often___ Frequently___ Occasionally___ Seldom___ Rarely___

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