Pueblo Health Models and Practices

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B.A. (University of California, Santa Cruz) 1982

THESIS

Submitted in partial satisfaction of the requirements for the degree of

MASTER OF SCIENCE

in

Health and Medical Sciences

in the

GRADUATE DIVISION

of the

UNIVERSITY OF CALIFORNIA, BERKELEY

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MASTER'S DEGREE CONFERRED
MAY 16, 1986
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Chapter One: Introduction

Overview

A description and analysis of Pueblo Indian health models and practices are presented in this paper. The dual aims are to present an ethnographic description of the concepts and practices, and to analyze specific areas in which an understanding of Pueblo health models and practices will be of use to medical and public health workers. Traditional Pueblo medicine, the Pueblo concept of communal health and sickness, and the relations between Pueblo culture and biomedicine are the three core areas of this thesis. In the concluding chapter the potential effects of the emergence of biomedicine as a dominant healing paradigm among the Pueblos are considered. The compartmentalization theory of Pueblo acculturation is proposed as a framework to develop public health and medical programs designed to minimize cultural disruption.

The literature on Pueblo traditional medicine and health concepts is primarily derived from the ethnographies of the 1930s and 40s. A description and analysis of these areas using current data and medical anthropology theory is presented. Hill has suggested that a "re-examination of the whole field of Pueblo medicine is in order " which "could well result in a re-evaluation of the concepts of disease" and "would undoubtedly uncover cultural change in recent years, and the impact of various health programs (1982: 309)."
The field research for this work focused on three of the most northern of the Rio Grande pueblos: Santa Clara, Picuris, and Taos. The three pueblos are primarily analyzed as a unit in this paper; however distinctions among their health practices are occasionally noted. An examination of the language differences between the three pueblos demonstrates that the Rio Grande pueblos are not a homogeneous group. All three pueblos are in the Tanoan linguistic group; however Santa Clara speaks Tewa while Taos and Picuris are Tiwa speaking. Distinctions between the Tiwa languages at Taos and Picuris exist despite a separation of the two pueblos by only twenty five miles. The three pueblos are grouped together because of their many similarities and the desire to examine a broader spectrum of health models and practices than can be found in any single pueblo. The combined population of the three Pueblos is less than 3500 which facilitated a reasonably comprehensive overview of the three Pueblos health practices in a short time of fieldwork.

**Methodology**

Field research was conducted during a nine week period in the summer of 1985 and January of 1986. During this time I conducted forty open ended interviews with twenty Pueblo individuals and eighteen interviews with fifteen Anglos who either lived at the Pueblo or worked as health care workers in the Pueblo community. Individuals at the pueblos were contacted through health workers and previous informants. The sample was
not a true cross section of the Pueblo communities as individuals with extensive occupational or social involvement outside of the Pueblo were more accessible and more inclined to consent to interviews.

Two major methodological problems were the Pueblos' desire for secrecy and an aversion to direct questioning. Secrecy was a problem during field research as many areas of Pueblo life, such as religion and language have been kept secret from the non-Pueblo world. Safeguarding traditions became necessary during the time of Spanish domination when the priests actively attempted to destroy the Pueblo religion. Taos Pueblo is particularly renowned for it's pervasive secrecy; a basic organizing principle at Taos pueblo is that "no Taos Indian should reveal anything intrinsic to Taos life" (Bodine 1979: 255). An informant explained that "knowledge is sacred, thus power is attributed to it. In our (Pueblo) culture knowledge makes you a finished person." Giving information casually to people who lack understanding is believed to cause the dissipation of knowledge. Pueblo medicine is intimately related to the religion, hence it falls in an area of secrecy. Parsons (1939: 940) related that "During years of inquiry by several investigators no medicine man has been of aid, not a single thoroughly informed, frank and reliable informant has been found." I emphasized to my informants that my interest was in concepts of health and sickness, and explicitly disavowed any interest in the kiva based religion and religious healing ceremonies. This disavowal greatly
aided my acceptance by the community and is probably a prerequisite for medical anthropologists working in the pueblos at this time. Key informants discussed the kiva religion and ceremonial healing infrequently, but some individuals emphasized that any discussion could be grounds for ostracism. I have respected this desire for privacy and will not be explicitly discussing the kiva religion or healing ceremonies.

The strong distaste of the Pueblo people for direct questions presented a second methodological problem. This trait was noted by Parsons (1939: 945) when describing an inter-Pueblo visitor who "In accordance with Pueblo manner or habit, probably asked no questions. Pueblos, like other Indians do not learn by questions and answers. And of course questioning itself, any Pueblo would think, tends to reveal too much." One is regarded as coarse and uncultured if he or she asks too many questions. Knowledge must be gained from observation. An example was the complex ceremonial dances which are rather difficult to learn. The children did not ask questions to become proficient at the dances but learned by continual observation and practice. The core religious training of the kiva initiation involves repetitive telling of stories, myths, and religious instructions. The boys in kiva initiation are expected to further their understanding by continually listening and observing rather than by asking questions of religious elders. The aversion to questioning clearly presents an obstacle for the ethnographer. One solution was the use of key informants who have a greater
tolerance for the Anglo process of interviewing. Another technique was simply talking about an area of interest with the hope of encouraging the telling of stories about that area, a much more culturally acceptable style of learning. The aversion to direct questioning extended to my personal history as only the most acculturated Pueblos would express any interest in my background, project, or life away from New Mexico.
Chapter Two: Traditional Pueblo Medicine

In this section the practice of traditional medicine at the pueblos is described. The scope of practice of the traditional healers, major Pueblo folk illnesses, and the use of herbal medicine are emphasized. Although data is presented from all three pueblos, the focus is on traditional medicine at Taos pueblo.

Traditional Practitioners

The practice of traditional medicine in the pueblos involved medicine societies and independent practitioners. Santa Clara Pueblo utilized independent healers as well as ceremonial medicine societies; however currently only the societies are found at Santa Clara. At Taos pueblo all healers practiced independently since medicine societies were never present at Taos. Picuris pueblo currently possesses neither independent healers nor a medicine society, hence traditional medical practices have been attenuated.

The bear medicine societies at Santa Clara were borrowed from the Keresan pueblos to the south. The societies practice a ceremonial form of curing utilizing corn ear fetishes, sucking on parts of the body to remove sickness, and ritual singing. The healing function of the societies involves preventive and curative ceremonies for individuals, family units, and the entire
pueblo. The bear is the patron to all Zuni, Tewa, and Keresan medicine societies and "it is believed that the shamans (of the medicine society) have power literally to turn into bears (Parsons 1939: 189)." According to Parsons (1939: 62) "The foundation of Keresan doctoring or shamanism is the belief that the doctors are possessed of the powers of animals associated with disease, and that doctors, having the power of witches, can overcome witches." The communal healing of the medicine societies is discussed in reference to the concept of communal well-being in chapter three.

The ethnographic literature includes descriptions of the independent traditional healers present in the pueblos during the 1930s and 1940s. Parsons (1936: 58-62) described four independent healers at Taos pueblo, three men and a woman. The three male healers were distinguished by specialization. There was a bone setter, a blind doctor who specialized in massage and "stomach troubles", and a generalist who practiced ceremonial healing. The generalist practiced in a style that resembled the Santa Clara medicine societies. A treatment by the ceremonial healer is described in which he sucked objects out of the body of a patient. The doctor described as merely "a stomach specialist" by Parsons is remembered by older Taos residents I interviewed as an extremely talented healer skilled at herbal medicine, massage, and counseling to an extent unmatched by present healers. Currently Taos has no ceremonial healers. The bone setter and massage functions are still practiced by each of the
two Taos traditional healers discussed in this paper.

The literature on independent traditional healers at Picuris and Santa Clara is less extensive. Accounts of curing at Picuris are limited to a few paragraphs in a short article by Parsons (1939a: 215). Her primary informant asserted that "There is no Indian doctor at Picuris" and "professed ignorance of all Pueblo methods of curing." During my fieldwork informants from Picuris had no recollection of any traditional healers at Picuris. A tribal leader asserted that traditional medicine had died out by 1900. Although the Picuris population has increased substantially in the past decade, it consisted of only thirty five residents in 1968 (Bodine 1972: 275); thus the lack of an oral history concerning traditional healers was not surprising. Although currently no independent traditional healers are found at Santa Clara, Hill (1982: 337) described in his fieldwork from the 1940s several herbalists, massageurs, and midwives who practiced a "secular" traditional medicine distinct from the medicine societies.

Santa Clara historically had ceremonial medicine societies as well as independent healers. Hill (1982) presented several concepts that determine which of the two groups treated a particular sickness. Hill proposed that "A case can ... be made that the esoteric (medicine) societies were concerned substantially with those ills which were of psychic origin; ie. those caused by anxieties associated with the supernaturals, whereas secular practices dealt primarily with those of somatic
or accidental nature (1982: 309).” Witchcraft and breach of taboo were etiologies treated by the medicine societies while toothaches, stomachaches, and headaches were treated either within the household or by the "secular" independent healers. Hill (1982: 309) found "no evidence that these midwives, herbalists, massagers, etc. took much if any cognizance of the teleological factors of taboo breach or witchcraft." A further distinction between the independent "secular" and medicine society healers at Santa Clara was that the medicine societies performed preventive and curative healing while the independent healers focused exclusively on curative practice.

The two traditional healers currently practicing at Taos are males over the age of fifty. The traditional healers are described by Pueblo residents as medicine men or massagers. The principal treatment modalities utilized are musculoskeletal massage, internal organ manipulation, and herbal medicines. The Anglo health personnel minimized the role of the more active independent healer and regarded his work as limited primarily to bonesetting and massage. This traditional healer described himself as capable of treating virtually all complaints including gastrointestinal problems, headaches not responsive to aspirin, pneumonia, broken bones, sprains and strains, and some cancers. Informants described his practice as largely focused on musculoskeletal and gastrointestinal problems. Most individuals who believe they had pneumonia, cancer, or otitis media initially sought help at the Indian Health Service (IHS) clinic. However
many of the older people might see the traditional healer first, even if they suspect pneumonia. The healer asserted that he could heal pneumonia if not too far advanced. For advanced cases he would refer the patient to the IHS clinic, although his treatment might continue to be administered.

A woman healer at Taos was reported by Parsons (1936: 58), although her practice was not described in detail. Currently Taos has no women traditional healers, although it was reported to me that traditional midwives were active at Taos in the 1960s. In addition to their role in childbirth these midwives treated common gynecological problems and young babies. The midwives' skills were relatively sophisticated as they were adept in turning breech babies. Now all births occur at the hospitals in Taos or Santa Fe. During my fieldwork, the physician at the Taos IHS clinic was asked to backup a Pueblo midwife during a home birth at the pueblo. Although this was reported by several reliable informants, other people said it was impossible that a Pueblo midwife would do a delivery. The minor roles in traditional healing women currently perform include acting as advisors for women with obstetrical and gynecological problems. At least one woman treated infants afflicted with flipped liver, a Pueblo folk illness.

Parsons (1936: 58-59) and several Pueblo informants indicated that the independent traditional healers at Taos used to have a broader medical practice than is found today. Parsons described healers who treated witchcraft and performed
ceremonial ritualistic healing; however such healing is no longer practiced at Taos. Past traditional healers' expertise in herbal medicine and counseling techniques is remembered as having been superior to the skills of current traditional healers. As one woman said "My grandfather used a lot of talking (in his healing practice) but the massage people don't do the talking now." The range of sickness treated by the healers at Taos has been attenuated to some extent due to concern about the safety of internal organ manipulation by the traditional healer. Several people described an individual who received deep massage for pain that was later diagnosed as an appendicitis. The sick person died from a ruptured appendix which was attributed to the massage.

To become a healer at Taos pueblo others at the pueblo must perceive that the individual has healing ability. Several people mentioned that healing skills are concentrated among a few families at the Pueblo. A healer explained that he received a calling from spirit at age sixteen to become a medicine person and at age eighteen an older medicine person came and taught him. He did not want to become a medicine person because of the great responsibility and arduous work involved. A family member estimated that this healer saw approximately fifteen people per day. He was well respected and has been involved in village governance activities. No set fee were charged for his medical services. Compensation took many forms, cornmeal or money were the most common.
A person appropriate to practice traditional Taos Pueblo medicine is described as having a "strong hand," which is determined by other people in the pueblo. The characteristic of a "strong hand" refers to more than the individuals ability to manipulate and massage, although these are important attributes. Possessing a "strong hand" indicates that the individual is "totally and completely Indian" according to one informant. He added that traditionally the preferred Individual was someone who never went to school and "doesn't know the Anglo world, this authenticates to the ultimate." As children are not kept out of school to become healers the former qualification can no longer be met.

Unlike Chinese or Aryuvedic healers, the traditional Pueblo healer had no techniques for detecting imbalance or imminent illness in an apparently healthy individual. Individuals never saw the traditional healer when they were well because Pueblo health maintenance practices did not include visits to healers. When the independent traditional healer saw a patient he did not take a history but asked the patient what bothered him or her. This conversation was usually in Tiwa as the healer's English was rather rudimentary.

The role of the independent traditional healers at Taos has been affected by the increasing use of biomedicine in the pueblo. Due to the limited ethnographic information concerning traditional medical practice, the changes in traditional practice were difficult to delineate. The expressed concern of Taos
residents about the safety of internal organ manipulation indicated that this practice was decreasing among some sectors of the Taos population. However the healers were well accepted throughout the community as massagers, and this role appeared secure. Although both healers were older men traditional healing was not dying out. The Pueblo have great respect for their older members and traditional healers might have always been relatively old. As one Pueblo explained "I have no doubt that another medicine man will be found at Taos and I would guess the process is happening in the kiva ---the sanctioning of who can do it. It must be an older person as everything is reserved for the elderly. In Taos it (the healer role) is not going to die out. The next person will ascend for religious and charismatic reasons."

David Landy (1977: 468-480) characterized three possible roles for traditional healers affected by the introduction of biomedicine; they are the adaptive, attenuated, and emergent roles. In the adaptive role, the healer alters his practice as members of the community begin to utilize the biomedical clinic, yet the healer retains a broad enough function to maintain his status. In the attenuated role, the healer is been forced to a marginal existence with a loss of prestige as his patients chose the biomedical clinics. The attenuated healer is faced with eventual extinction. The emergent role is one which has it's origin in the contact between western and non-western medical systems.

The Taos massagers can be viewed as adaptive curers in
Landy's model. They continue to treat Pueblo folk illnesses, musculoskeletal problems, and a variety of other sicknesses. Several informants suggested that the treatment of psychosomatic complaints comprised a substantial portion of the massager's practice. If an increase in the incidence of somatisized sickness is occurring due to the tension and anxiety attributed to the stresses of acculturation, then the massagers role may hypothetically be shifting towards the treatment of such sickness.

The community health representatives (CHR) at Picuris may be loosely characterized as emergent 'curers' although their treatment role is extremely limited. The community health representatives (CHR) are a government funded program utilizing emergency medical technicians to perform a variety of services including twenty four hour ambulance runs to hospitals and home visits to sick members of the community. Examples of emergent healers described by Landy (1977: 475-476) include the doctor-boys of New Guinea who attempted to market a pseudo-biomedical form of healing, Latin American spiritualist curers whose "traditional" healing is largely derived from European healers, and the Navajo health visitor. The Navajo health visitor's role is described by Landy as "contacting isolated Navaho and mediating, linguistically and medically, between them and the clinic." The CHRs at Picuris play similar mediator role with the biomedical system. The CHRs are the only accessible health care resource as Picuris has neither
traditional Pueblo or biomedical healers.

**Traditional Pueblo Concepts of Disease Etiology**

The primary traditional Pueblo etiologies of sickness were witchcraft and breach of taboo. Hill (1982: 309) described natural causes, old age, and accidents as being "recognized but (their) role was incidental in the overall theory of disease" although they were some of the most commonly treated causes of sickness. Although Hill described breach of taboo as the most important etiology of sickness at Santa Clara, other eastern Pueblo ethnographers (Linton 1940: 411 and Parsons 1939: 62-67) focused on witchcraft as the dominant etiology. It is unclear whether the etiological basis of sickness varied among the Rio Grande Pueblos. At Santa Clara (Hill 1982: 310) breach of taboo included "any type of nonsanctioned or antisocial behavior or digression from the ideally conceived way of life, or nonconformity of any kind." The proper way of life for a Pueblo was based upon the instructions given the men during their kiva training. Specific breaches of taboo include sacrilegious thoughts, lack of attention to religious instructions, practicing witchcraft, sexual incontinence during ceremonial activity, and giving information to anthropologists.

Pueblo witchcraft is the most thoroughly described aspect of Pueblo sickness and curing in the ethnographic literature. The descriptions of Pueblo witchcraft are not of Pueblo witchcraft, for a Pueblo witch or witchcraft ceremony has never been actually recorded by an ethnographer. Rather one is examining
Pueblo concepts of witchcraft. Linton (1940: 418) reported that the belief in witchcraft antedated the Spanish conquest as "in the earliest reports we find trials and accusations by Spaniards of witchcraft. Witchcraft was one of the Pueblo cardinal sins and was punishable by death." Epidemics of sickness were attributed to witchcraft and were followed by trials and executions of witches. European contact produced epidemics of smallpox, diphtheria, tuberculosis, and influenza; these epidemics may have increased witchcraft accusations at the time of contact.

Parsons offers an excellent description of Pueblo witchcraft in her classic volumes *Pueblo Indian Religion*:

...even the witches do not operate alone; there is a witch society and a witch gets power from the animal that belongs to his ceremonial father. However, the witches are far more individualistic than the shamans whose techniques they use outside of their proper setting, even to possessing a medicine bundle. Shamans themselves misusing their power for nefarious, private ends, are considered to be witches. Witchcraft is power used improperly. A witch may injure individuals or the entire community. He can cause a landslide or flood; he may send an epidemic upon the town or he may sicken or kill a person by stealing his heart which is his life or by sending into his body injurious things. To the Pueblo witchcraft and immorality or crime are almost synonymous. A witch has all the traits people consider antisocial. He is envious, jealous, retaliatory, or revengeful, quarrelsome, self-assertive, and noncooperative, entirely too unconventional or from the Pueblo point of view too much of an individualist. Anybody who has such traits is exposed to the charge of being a witch (1939: 62).

As the social infractions of witchcraft and breach of taboo are viewed as the primary etiologies of disease the Pueblo concern about sickness functions as a social control mechanism. Hill (1982: 308-309) describes concern for health and well-being as

one of the major themes of (Pueblo) culture and was responsible for directing and channeling much of people's behavior. Individuals had to continually scrutinize their own actions for digressions and
omissions which might result in supernatural retribution in the form of misfortune, accident, illness, or death. Besides self-engendered dangers, there were others that had to be guarded against, equally potent, which stemmed from the machination of antisocial persons...The result was the conception of a hazardous world, fraught with insecurity, which generated considerable anxiety and tension.

The control of behavior described by Hill was only one area of the social control engendered by concern over supernatural retribution. An individual's thoughts and social interactions might result in sickness for the individual or for the society. Ortiz (1969: 143) alludes to this in his discussion of the Pueblo world view in which "among human beings the primary control factors are mental and psychological states. If these are harmonious the supernaturals will dispense what is asked and expected of them. If they are not, untoward consequences will follow just as quickly, because within this relentlessly interconnected universal whole the part can affect the whole..." Disharmony will effect the health of the entire Pueblo because "misbehavior to the Pueblo has social rather than individual consequences (Parsons 1939: 1102)." Witchcraft and taboo violation are discussed further in the presentation of the Pueblo concept of communal health and sickness in chapter three.

**Traditional Pueblo Illnesses**

Several Pueblo folk illnesses, including flipped liver, evil eye, and the glass, are treated exclusively by the traditional healers. Folk illnesses or culture bound syndromes are described by Rubel (1985: 2) as "syndromes from which members of a particular group claim to suffer and for which the culture
provides an etiology, a diagnosis, preventive measures, and regimens of healing", and about which biomedicine claims no expertise. In addition to these specific traditional illnesses, other, less well defined folk "conditions" or syndromes exist, such as the "exhaustion" described as occurring after ceremonial dancing among a large group of people. This exhaustion is due as much to the stress of being among a large group of people as to the physical activity of the dance. The Pueblo are an exceptionally reserved and decorous people (Benedict 1934) and a lengthy public performance may be construed as a rather stressful event. The more distinct entities of flipped liver and evil eye are described here as examples of Pueblo folk illnesses.

Flipped liver, or 'jah ma whep' in Tiwa, is the most common traditional Pueblo pediatric illness. Every individual interviewed at Taos Pueblo was familiar with the illness and many had been affected themselves as young children or infants. According to most informants the sickness commonly effects only young infants or children, although some people believe that individuals can be affected at any age. A child might have flipped liver several times during his or her childhood. The most common etiological explanation for flipped liver is that it occurs subsequent to a fall or 'rough and tumble' play. Symptoms include nausea and vomiting, jaundiced or sunken in eyes, often a fever, and lethargy. These begin suddenly after the precipitating incident. The disease can be serious and fatal due to excess vomiting if the child is not treated with manipulative massage
to reflip the liver to its correct position. The massage treatment effects an extremely rapid cure and is invariably effective according to informants. As mentioned earlier, in addition to the male traditional massagers there are women at the Pueblo experienced at flipping livers.

One Pueblo traditional medical practitioner responded to my questions concerning flipped liver with a laugh. He explained that 'flipped liver' is from an alteration of "the pipe that food goes down, as the liver can not be moved as it is held in place." His description of the symptoms and treatment was similar to that of other people in the Pueblo. A Pueblo woman stated that she did not "believe in flipped liver because my mother didn't" and later added that she "think (s) it's the intestines, not the liver, flipping over." This informant and the practitioner were both familiar with the traditional disease known as flipped liver; however they attributed it to flipping of the intestinal tract rather than the liver.

All Pueblo informants viewed flipped liver as a distinct entity not amenable to biomedical treatment. Diarrhea, common in gastroenteritis, is not described as a common symptom. If a child is brought to the IHS clinic and the child's parents subsequently discover that the cause of the sickness is flipped liver then the child is taken from the IHS to a traditional healer or other individual skilled at flipping livers. The belief in flipped liver is found among all Pueblo individuals regardless of level of acculturation or education. This was best illustrated by an
interview with a Pueblo biomedical worker. Despite her training in the biomedical sciences of anatomy and physiology, she stated to me that each of her children had suffered from flipped liver on several occasions. She felt that flipped liver could not be equated with any biomedical disease entity and described the following incident concerning a hospitalized Spanish-American baby.

In recalling the incident the Pueblo biomedical worker said:

"I knew right away when I saw the baby [that it had a flipped liver]. I talked to the father who is Spanish and asked if my Aunt Stella could come in. The doctor had the baby on antibiotics and the prognosis was poor. The family stepped out of the room [during the liver flipping]. The baby improved rapidly overnight. We never told the doctors, just the parents."

This anecdote demonstrated the tenacity of the folk belief in the diagnosis of flipped liver even among those individuals well acculturated to biomedical health beliefs. It also demonstrates the reluctance of Pueblos to discuss their traditional healing beliefs with medical and health personnel. Flipped liver is considered a serious sickness if not treated, but is held to be universally curable when the patient is brought to a traditional practitioner.

Evil eye is a pediatric folk illness which is considered to be more serious than flipped liver. Evil eye (mal ojo) is a common folk illness among the Spanish-American population of New Mexico (Schepers-Hughes and Stewart 1983: 186 and Parsons 1936: 14) and the Pueblos probably adopted it from the Spanish. Parsons (1936: 14) stated that evil eye was widely believed in at the time of her research in Taos. The sickness occurs in infants
due to the interaction between the infant and an adult who gave the evil eye, either intentionally and maliciously or unintentionally. When it is deemed malicious, often jealousy of a pretty baby was the ascribed motive. To prevent evil eye, infants wore a black coral bracelet which is believed to absorb any bad thoughts coming from another person. A person approaching a baby must touch and talk to the baby to prevent giving it the evil eye. Symptoms of evil eye include agitation, vomiting, restlessness, trouble focusing the eyes, and lethargy. The variety of symptoms is greater than for flipped liver. One of the most commonly described symptoms is when the baby is sleeping with the eyes at 'half mast' or partly open. For treatment, the source of the evil eye should be known, but usually is not.

The glass, or the vaso, is a traditional Pueblo adult sickness. The principal symptom is chest pain described as a feeling of tightness or tension between the ribs. The pain is traditionally attributed to a "glass" rising up in the chest. The Pueblos use several biomedical disease labels including ulcers, angina pectoris, and anxiety to explain it's occurrence. The glass is less common than flipped liver or evil eye. The treatment is performed by the traditional Pueblo practitioner who can "open the glass."

**Herbal and Peyote Medicine**

Herbal medicines are very commonly utilized in Pueblo treatments. Herbs are used by traditional healers who prescribed them to their patients as well as by individuals for self
medication in the household. Parsons (1939: 14) described this
distinction by explaining that if the herbal medicines are "used
in one way (then) the plant may be free to all, used in another
way it belongs exclusively to a given society." The more
commonly used remedies and their uses, according to Pueblo
informants, include:

- Sagebrush: coughs, colds, pneumonia, stomach aches
- Cota (Indian Tea): stomach aches, uterine cramping, colicky
  babies
- Cedar: stomach aches, purification, strep throat
- Osha: flus
- Atole (Corn Meal): diarrhea, flipped liver
- Potatoes: headache
- Yarrow: fever

The importance of herbal medicine in traditional culture
was emphasized by several informants. Individuals who were
ignorant of herbal medicine often expressed a desire to learn
more. A well acculturated Pueblo man explained: "I feel we
probably haven't utilized herbal medicine to the extent that we
[his family] could since we aren't confident in our knowledge. I
know from experience that I could go to someone (for herbal
medicines) but I don't know the protocol which one needs to
know." Herbal medical knowledge is generally passed on in the
extended family but with increasing acculturation other sources
of information have become available. Two examples were an
Anglo woman from the Taos "counterculture" community who
taught her Pueblo in-laws her own herbal knowledge, and Pueblos who read holistic health books describing herbal remedies.

Peyote is viewed as a sacred medicine by the 10% to 20% of Taos pueblo residents who belong to the Native American Church. Taos is the only pueblo with a substantial membership in this church. Although previously controversial (Parsons 1939: 1095 and Bodine 1979: 264), the church is presently fairly well accepted at Taos. Church members may be active in the tribal government and in the kiva religion. The church's sacramental use of peyote is not reviewed here since the church and its religion are well described in several recent monographs (Aberle 1966; Anderson 1980; LaBarre 1959). Healing is one of the functions for which people may attend a peyote meeting (ceremony). A meeting or series of meetings may be held when a family is having emotional turmoil or family problems. Peyote meetings may also be held for people afflicted with biomedical diseases such as a meeting that was held prior to a young girl's operation to correct a congenital anomaly.

Peyote is used by church members as a treatment for many diseases. I was told of a woman who was blinded by cataracts and who attended peyote meetings. Subsequently she began to wash her eyes with the juice of the peyote plant. One morning, according to an informant in the church, "she walked to the mirror and saw she could see herself well as the cataracts had fallen off." Parsons (1939: 1095) mentions that the initial
opposition to the church at Taos was led by the family of the sole ceremonial healer who may have viewed peyote as a potential competitor because "peyote interfered with his individual practice for peyote cures bewitchment." The exorcism of witchcraft was an important function of ceremonial healers in the pueblos. According to my informants, however, healing that occurs through the peyote church is not seen as conflicting with either biomedicine or traditional Pueblo healing.

Conclusion

The current state of Pueblo ethnomedicine has been described through the presentation of my field research and a review of the related ethnographic literature. Traditional healers actively practice at Taos and Santa Clara pueblos, although the scope of this practice has diminished in the decades since the ethnographies of Parsons (Taos) and Hill (Santa Clara). The traditional social etiologies of witchcraft and taboo violation are still prevalent at the pueblos. The traditional healers have accommodated biomedicine by restricting their practice primarily to Pueblo folk illnesses, illness attributed to witchcraft and taboo violation, the psychosocial dimension of illness treated by biomedicine, and illness unsuccessfully treated by biomedicine. Flipped liver, a previously undescribed Pueblo folk illness, is the most prevalent folk illness at Taos. Since individuals recall incidents of flipped liver occurring up to thirty years ago, it was apparently overlooked by past ethnographers. Pueblo traditional medicine has been described in
the context of the treatment of the individual patient's illness however the Pueblo view of individual sickness is integrally linked with the concept of communal health and sickness presented in the following chapter.
Chapter Three: Communal Health and Sickness

The Pueblos are a communal society with extensive kinship networks in which the well-being of the individual is inextricably linked to the well-being of the Pueblo community. In this chapter Pueblo concepts of health and sickness that transcend the individual's private experience are explored. A major distinction between the biomedical and traditional Pueblo concepts of health and sickness is that the Pueblo concept views health and sickness on communal as well as individual levels. This is not to suggest a dichotomy between communal and individual health at the pueblo; rather the health or well-being of any individual at the pueblo is seen as inextricably intertwined with the health of the Pueblo itself. An individual may experience sickness due to a disruption of the community; alternately the behavior or attitudes of individuals can disrupt the well-being of the community.

To understand sickness at the pueblos the body of the community as an entity which experiences sickness or well-being must be described. The models of individual sickness exist as parallel structures to models of community sickness. The perception of the pueblo as a body which can experience health and sickness permits the individual, experiencing an episode of sickness, to relate his or her health to the state of the Pueblo social structure. The concept of a community body is
presented by first discussing Pueblo concepts of health and then proceeding to examples of the disruption of communal well-being by witchcraft, violation of Pueblo social norms, alcoholism, the death of individuals, and a specific epidemic of death at Taos Pueblo.

**Pueblo Concepts of Health**

During interviews at the pueblos two predominant themes emerged concerning the definition of a healthy individual. One concept is the perception of health or well-being as a state of balance in which extremes were avoided. The second concept is that an individual’s health was demonstrated by his or her daily interactions with community members.

The importance of maintaining harmony is consistent with the Pueblo world view as summarized by Dozier who writes that:

> To the traditional Pueblo Indian, life is interrelated, balanced, and interdependent. Man is a partner with nature; the two bear a reciprocal relationship. Man performs rites and ceremonies and nature responds with the essentials of life withholding the bad. Ceremonies must be performed joyfully and faithfully; nature will respond in kind. Man alone can disrupt universal equilibrium by thought, word, or deed. The consequences of imbalance are illness, disasters, drought - any misfortune (Dozier 1970: 151).

The terms balance and harmony are English translations of the Pueblo concepts. In contrast the corresponding Pueblo phrases are more dynamic. The Tewa concept of "seeking life" is used to describe the state of balance. It is an active concept which correlates with the proper performance of certain rituals and ceremonies to preserve the balance of life. The concept of 'sige can se can amu' refers to a state of well-being and can be
roughly translated as the state where "you are loved, blessed, and honored in the view of the supernaturals." Here the interrelationship between Pueblo health and religious beliefs is clearly demonstrated. The state of harmony must extend beyond the individual to include his or her family and the village as a whole. The village is the largest social unit that must maintain harmony. No descriptions of sickness or misfortune arising from the activities of other Pueblo villages or from the surrounding non-Pueblo world were reported.

A Pueblo woman frequently alluded to balance, in response to my questions, so I inquired what the term meant to her. She answered with the following story:

It's everything to me. I came about it almost after the fact. A lot of teaching at the Pueblo is by being. Things happen when growing up. When I was growing up I was always in the middle and mediocre. My sister would always tease me about being conservative. Ten years ago I started to think about nature—trees don't grow at higher elevations, more fish are in the center of oceans than the top or bottom. Pueblo teachings come from nature. (The) balancing act is from nature not the Pueblos but it is the Pueblo way of thinking. (This concept of balance) opposes western competition to be the best.....I think of everything (as being) right in the middle. Nature says anything in extreme is bad. Many Pueblos would agree with this.

Later she mentioned that hypertension was due to extreme stress, and cancer from an "overload of whatever it takes (to cause cancers), more than what the body can take."

In Pueblo culture a healthy individual is defined as a person who interacts well with the community. The way an individual greets other people is taken as an indication of his or her health status and was the most frequent response to my questions concerning the signs of good health. I was told that a healthy
person is "someone that smiles at you even when they are a total stranger---then they are happy and healthy." The greeting should occur even if one has nothing to say. One woman gave an example of this: "People in my village will say 'Are you selling wood?' when it is obvious that they are. This is the form of greeting. My father gets very hurt when young people don't know to acknowledge other people's presence." In the greeting system the interrelationship of all in the village is demonstrated by referring to everyone in kinship terms, such as father, mother, brother, sister, aunt, or uncle. Pueblo children are taught the importance of such greetings early in childhood socialization. One woman recalled her father emphasizing that one should "Never pass anyone without greeting them as it will make them feel they do not exist."

A second example of health exhibited in social relations is the disdain for individuals who chose to separate themselves from the social milieu. In response to my question concerning the signs of a healthy individual I was told that "Being together is quite important; my grandmother was afraid I was being a loner so she kept saying, 'You must not be alone as it is not well' during my childhood." Another description of the healthy individual, from a Pueblo nurse, was "Someone that is active, takes part (in social life) and helps other people. There is a glow to them." Despite her training in the philosophy of biomedicine she still conceptualized health as manifested in social relations.

The Pueblo model of the social context of well-being is
also demonstrated in attitudes toward eating. The sharing of food is the prime symbol of hospitality. During feast days, such as ceremonial dances, it is requisite to accept invitations to feast whenever food is offered, regardless of how much has already been eaten. This was brought home to me early in my field work by a Pueblo acquaintance who was offended when I politely declined her offer to come over and eat during her pueblo's corn dance. Worse, I mentioned that I had already eaten a large meal at the house of another family. She looked intently at me as if trying to decide why on earth I would give such a rude response. I looked confused and asked her about the garden she was working in. She soon asked me if I'd like to come in for a drink and I gladly accepted. I later learned that an invitation to feast must never declined even if you have other plans. To accept the invitation and not show up is better than to graciously turn aside an invitation. To feed people on a feast day is to reap blessings according to Pueblo tradition. The feasting not only serves to bring people together but it is also a tie to the dead, as one informant explained in saying that "We share what we eat with those that have gone before us....people who have died are thought of as being all around."

The Pueblos are well known for their communal ceremonial dancing. The dances are mandated by the Pueblo religion as essential to the maintenance of communal health. These dances take place regularly; during my nine weeks at the pueblos nine
dances occurred at the three pueblos. Each dance lasted from three to six hours. In addition to dancing in the public areas of the villages, private rituals were held in the kivas and feasts took place at the individual homes. During the dancing the individuals experienced a sense of renewal and community. A Pueblo community health worker explained that the ceremonial dancing left his community "feeling more refreshed and alive. It is something that has to be continued. All (the people) come together and you see people you seldom talk to. People come back with a good attitude. Dancing regenerates them. We'll find people happier and more lively after the dances." The dances can serve as a vehicle for healing the community body. During the six months before a deer dance, the small pueblo of Picuris had experienced a series of deaths. Several people noted to me that the deer dance was helping to restore to the community the sense of well-being that had been missing since the deaths.

**Mechanisms to Maintain Communal well-being**

Ceremonial healing, the kiva based religion, and traditional counseling are mechanisms by which communal well-being are maintained. Santa Clara community healing ceremonies are conducted by their medicine society as a form of preventive medicine. W. W. Hill's ethnography of Santa Clara (1982) offers the best description of the community healings. The communal healings are preventive and purifying rituals "to cleanse the tribal territory and everything it contained of witches and their malignant influences (Hill 1982: 330)." The importance of the
community healings to Santa Clara is illustrated by one woman's comment to me that: "It makes sense that things are done for our welfare. When it doesn't happen we fear for what may happen. (The community healing) brings about a feeling of us being taken care of and is very important to all of us." When I mentioned that Taos did not have medicine societies or community healing she was quite surprised and after a pause said "I can't imagine a community that doesn't heal itself."

Taos and Picuris have no medicine societies; therefore formal community healings are not performed. A Pueblo man familiar with both Taos and Santa Clara suggested that the greater role of the Clown society at Taos and the more formalized kiva training may in part serve the function of Santa Clara's medicine societies. The Clowns at Taos have both social control and healing functions. The healing occurs through the laughter and diminishment of community tensions that result from the Clowns' activities. The Clowns have absolute right to act as strangely as they want when they appear in the village. They function as a social control by disciplining community members through pranks such as dumping the pueblo Governor's secretary into the river.

"Advice giving" is the term used in the pueblos for the form of counseling performed traditionally by the tribal council and family members; and currently through the Pueblo-run alcoholism treatment program. "Advice giving" enforced obedience to the traditional values of the pueblo and functioned
as a traditional mechanism for preventing disharmony at the Pueblo. An individual's thoughts and ideas are not an important part of the counseling process. The counseling focused on the individual, however it's traditional role included the healing of the community. Advice giving attempts, in the words of a Pueblo alcoholism treatment counselor, to "make people feel good about themselves and being Indian."

Although the counseling style is in many ways authoritarian, the alcoholism counselors emphasized that it can only work when the advice giver truly cares. In the words of a tribal leader and alcoholism counselor it is the 'caring part" which distinguished Anglo from Pueblo counseling. On advice giving he said one must 'care from your heart for him (the alcoholic). It must come from within your heart." Another Pueblo alcoholism counselor described many problems from the application of Anglo counseling techniques to the Pueblo population. He said that Anglo counseling "starts with a series of impersonal and denigrating questions" which are justified by the counselor explaining that he must know who the client is. Another problem of Anglo counseling is the tense adversarial nature of the relationship which a Pueblo alcoholism counselor described as the therapist and patient "locking horns." Pueblo advice giving attempts to place the individuals problems in the context of Pueblo history. Events from the pueblo's past and ways in which the pueblo has changed are topics that may be discussed at length. The emphasis is on developing pride in the client's Pueblo
culture. The key is said to be "making people feel good about themselves who are out of balance due to negative forces." Another counselor said that traditional counseling was to "enlighten people with traditional aspects of life that are forgotten" by the alcoholic.

Traditional Pueblo counseling or advice giving had a role in healing the body of the community. Traditionally the individual had to follow the advice for the community to accept him. In traditional Pueblo culture it was appropriate for any older person to take a younger individual aside and counsel him about his behavior and how things should be at the Pueblo. The younger person was obligated to listen to his elders. A Pueblo man in his forties mentioned that this form of counseling "brings all of Tewa thinking into play" although it is "one way communication and obedience is the only answer." He added that in traditional counseling "the authority figure would not know what the person receiving advice was thinking." The only acceptable outcome was for the young person to follow the advice of the elders, thus the traditional counselor did not need insight into the problems of the younger person.

Although the individual was counseled, the aim was not for the individual to achieve a greater understanding of himself but to maintain the harmony of the community. This technique for healing the community has largely been lost as younger Pueblos view it as authoritative and stifling. They now have the option of leaving the Pueblo. The social control sanctions have been
greatly diminished for individuals who stay at the Pueblo and defy the elders. As the role of advice giving has become attenuated, the psyche of the community body has lost its healer. The therapists of the Indian Health Service focus on healing the individual and do not tend to the community as the advice givers once did.

**Communal Sickness and Misfortune**

The Pueblo concepts of sickness resulting from witchcraft and the violation of social norms further illustrate the concept of health and sickness at the community level. Sickness and misfortune at the Pueblos is traditionally believed to result from witchcraft, violation of Pueblo norms, or ill defined "natural causes". The acculturation process since World War II has exposed the pueblos to two other models of illness: those of biomedicine and of holistic health. These models have altered the Pueblo view of what are "natural causes" of illness and have attenuated traditional beliefs that witchcraft and taboo violation are responsible for sickness. Witchcraft and violation of norms can be interpreted as producing sickness by disturbing the body of the Pueblo community.

**Witchcraft**

The belief in witchcraft is deeply rooted in the Pueblo villages. The prevalence of witchcraft belief is acknowledged even by community members denying a personal belief in witchcraft. Witchcraft control is the primary function of the Santa Clara medicine society. The medicine societies at Santa
Clara recently experienced an increase in their membership. Ten years ago there were four or five members in each of the two societies. Currently each society has more than ten members. A Santa Clara man attributed the growing membership of the medicine societies as a reflection of increased community anxiety.

Witchcraft is often suspected when an individual at the pueblo is either very successful in business, acting in ways foreign to the pueblo, or falls victim to a sickness or misfortune commonly attributed to witchcraft. Several families at Taos are reputed to be "witch families." I was unable to determine how or why an individual becomes a witch. A typical response to such questions was that "They are witches because they are witches, almost as if born witches."

A brief description of several instances of misfortune attributed to witchcraft will illustrate Pueblo attitudes and concepts regarding witchcraft. A young woman was diagnosed with thrombotic thrombocytopenic purpura (TTP). However, witchcraft was suspected by the Pueblo community and was attributed to her marriage to a non-Indian, and to her business successes. A second sickness attributed by pueblo residents to witchcraft was Juanita's neurological problems. Juanita became brain damaged secondary to the anoxia resulting from an obstetrical error in anesthesia. Juanita had also been quite successful in the Anglo world. Her family did not consider witchcraft to be the source of her sickness. Juanita's sister was
one of the few people at Taos pueblo who strongly stated that she did not believe in witchcraft, as this was an "outdated" concept. Juanita's sister states that the accident "Totally happened at the hospital and was a medical accident but some people say it is due to witchcraft. Juanita was ready to believe anything and thought someone may have witched her. She even picked out a woman at the hospital." Juanita viewed her sickness as witchcraft and desired a healing ceremony at a Keresan Pueblo. The Keresan healers would not accept her for healing, due to the quantity of medications that she was taking to prevent seizures and anxiety attacks.

The belief in witchcraft can affect the actions of the most acculturated Pueblo individuals. A Pueblo woman working in a substance abuse treatment program was prevented from initiating an alcoholism study at Taos because of the program director's concern that due to witchcraft the study was too dangerous to attempt. The director explained, "They can do us a great deal of harm." Taos' strong reputation for witchcraft was demonstrated by one informant's description of Taos as the "main kettle" of the area, and a thirteen year old girl's refusal of a social services placement in Taos since "everyone believes in witches there."

Witchcraft is the most focused manner in which an individual may be harmed by disharmony in the Pueblo social body. Witchcraft is one aspect of the Pueblo concept that sickness or misfortune may result from the thoughts or emotions
of individuals at the pueblo. The evil eye is believed to be frequently acquired due to contact with an individual who envy's the child's beauty but fails to interact with the child in the proper manner. To avoid giving an infant the evil eye one must touch the infant and say a few words rather than simply looking at them. Evil eye and witchcraft are specific events in which sickness results from the influence of an individual's thoughts and emotions on another pueblo resident. A Pueblo woman described to me the influence of thoughts and emotions on the well-being of other people in daily life. She explained that an individual's "manner of speaking and expressions on the face can make another person feel badly. It is not just "eyes" but the whole attitude and intent of the mind. I think people learn they can do this and become very proficient." Witchcraft and evil eye are thus seen as only the most explicit examples of the larger belief that the affect and mental state of individuals effect other individuals.

Violation of social norms

Violation of social norms is, as we have seen, a major traditional etiology of sickness and misfortune among the Pueblos. According to informants sickness is most commonly attributed to a pattern of behavior that constitutes a broad violation of social norms, rather than individual incidents of taboo violation. The Pueblo people value conformity and adherence to social convention and hence have many minor taboos. These are referred to in Tewa by the phrase 'a wina hopi'
which translates as 'there is a law against that.' Examples of such minor taboos include the need to walk into a kiva by turning to the left, and the need to avoid hunting after dark. Sickness is not attributed to such minor violations unless a series of such incidents occurs which then may constitute a violation of the broader Pueblo principle of "seeking life." Of interest to the concept of communal sickness is that the misfortune due to 'not following the Pueblo way' may be dispersed throughout the village rather than affecting only the individuals responsible. An Anglo woman who has lived in the Pueblo for years explained that "there is a notion that collective bad things will happen and less of a notion of individual responsibility."

An individual's sickness which was attributed to the actions of the community was described to me by a Pueblo man. Relay races are held at the pueblos for the religious function of helping to keep the sun moving and are "for all the universe" according to informants. Parsons states (1939: 393) that running "occurs in many ceremonies... an expression of mimetic magic, to assist the movement of sun and moon, to speed up the clouds, or to hasten the growth of crops." The incident described by a visitor from another pueblo is that "during a ceremonial race a boy falls down. Immediately an old man says,'We have not been observing ritual right' and the boy is sent to one of the massagers for healing. Someone else adds 'We are not in the right frame of mind.' Here is a situation in which a boy's physical injury is attributed to imbalance in the community and
the failure of the individual in the race may have repercussions for the entire village (or perhaps the entire universe).

**Alcoholism**

Alcoholism is a factor in many of the Pueblo's medical problems. Four of the top ten causes of death among New Mexico's Indian population are alcohol related including the top three of accidents (primarily motor vehicle), mental disorders (including alcoholism and suicide), and digestive disorders (primarily cirrhosis of the liver) (U.S. Senate Committee on Human Resources 1977: 245). Alcoholism's effect on the Pueblo communities is much greater than even these statistics describe. Alcoholism disrupts the Pueblo villages by destroying the community spirit and communication necessary for a communal society. An anthropologist working at Taos in the 1960s explained that:

> The Taos cultural system emphasizes cooperation within the community, respect for elders, and maintenance of harmony with elders and the universe. Behaviors contradictory to these basic Taos values are associated with heavy drinking. Men become uncooperative and aggressive. They speak in a disrespectful manner to their elders. They cause disharmony within their households and within the community. The dilemma is seen even within the Taos Pueblo council, the heart of the community. Although the council has prohibited alcohol use at the Pueblo in order to prevent these unacceptable behaviors, a number of councilmen continue to participate in heavy drinking activities (Brown 1990: 99).

A Pueblo tribal leader described alcoholism as the community's biggest problem. He explained that due to alcoholism, "Communication is not at the right level to satisfy. It creates a sadness among the whole community. Everyone has an alcoholic in the family. You say good morning and someone
won't answer you." When they quit alcohol, "Your sense of caring comes back and now (you) can say good morning and mean it. Shake hands or hug someone and mean it." He explained that alcohol causes early deaths for people in their twenties and thirties but that it is "a slow death for all in the community." In this description of the effects of alcoholism several of the concepts of communal well-being are present: The effect of alcohol on social behavior, such as greeting other villagers, is seen as indicative of decreased communal well-being. Communication between residents of the Pueblo is essential to community health, and the loss of communication due to alcoholism is said to be a death for the whole community. In contrast, in the individualistic western model a consideration of the effects of alcoholism on the community might focus on drunk drivers killing innocent people, the loss of economic productivity, and effects on the family (i.e. abuse of children and spouses).

**Death at the pueblo**

The death of a pueblo member is experienced as a loss of part of the community body. In the words of one Pueblo woman: "The death of any person causes a decrease in the communal energy. You feel like no one is smiling around the village and everyone is saying 'isn't it sad. There is no laughter, no joking. Gradually the village comes back to normal after a week." At Taos an older Pueblo woman said "Everyone feels the death. It doesn't really matter who has died. The funeral is attended by
almost the whole village." A Pueblo community health worker compared the behavior of the surrounding Anglo world: "The community pulls together and helps one another. In the modern world when someone dies (people) say 'life goes on' and jump into the car. Here for months at a time people see the family (of the deceased). It doesn't stop for months. Life is not taken lightly." Daily routines are altered for several days and tribal offices are closed. The sense of loss is felt throughout the village. In recent years, this loss is augmented as the death of each elder now represents a loss of another connection to traditional Pueblo ways of life.

It is of interest to note that my observations of how an individual's death profoundly affects the entire community are in contrast to Hill's (1982: 171) description of the Pueblo attitude toward death as "relatively fatalistic and outwardly unemotional." This apparent contradiction is mitigated if one distinguishes the reaction of the individual's immediate family and friends from that of the community as a whole. At the Pueblo an individual's death touches a broader segment of the community than in the Anglo world as members of the village who were not close to the dead individual are still affected. An individual facing his or her own death and the immediate family may be more accepting of death due to the traditional Pueblo concept that the dead remain at the Pueblo and influence village life after their death. Parsons (1939: 68) states that "The dead are described as carrying on in familiar circumstances in many
tales, and rarely if ever does a Pueblo question this common continuity theory of life after death." Therefore an individual's death may be more easily accepted by the individual's most closely affected than in the Anglo world, but may have a greater influence on the community as a whole.

An epidemic of death at Taos Pueblo in 1984 illustrates the effect of death on the community body and the resulting communal sickness and anxiety. Approximately twenty deaths occurred over a six month period. This was notable due to the sheer number of deaths and the attribution of many of the deaths to "unnatural causes." The deaths included a homicide, several cancer deaths, a motor vehicle death, alcohol-related deaths, and the mysterious death of a previously healthy 23 year old woman. However due to religious sanctions against autopsy deaths of unknown causes are not uncommon on the Pueblo.

Six to twelve months after the epidemic had ended the anxiety and fright prevalent in the community were still evident in the tone and affect of the Pueblo people I interviewed. One Pueblo woman recalled that "Last year everyone was frightened. People kept saying 'something's wrong, something's wrong. We're not doing something right." A young man told me that

People were saying something is wrong with the kiva. The traditional way is getting weaker as the contemporary is getting stronger. It was like a bad storm. An invisible force lingered for a year and everyone had bad luck. Young people and old people were passing away. The majority of deaths were of abnormal causes and alcoholism. But at the same time I feel things happen for a reason so I wonder about it. Look at yourself and those around you. Things aren't right. These things didn't have to happen. {It is } an example for everyone but most people are so sad and dwell on the loss, not the reason.
As Taos Pueblo is without a medicine society a community healing could not be performed in response to the death epidemic. A gradual consensus developed over much of the community that the epidemic was due to the improper behavior of the kiva chiefs. A Pueblo woman suggested that the epidemic "probably straightened up some people. The kiva chiefs are made aware of their role in community health." There was not complete agreement on the cause of the deaths. One woman forcefully stated that "a lot of them were alcohol related deaths. I don't believe that it was due to the kiva chiefs. I believe that when we don't get snow or rain at the right times that something is not going right at the kiva, but not illness as we are only responsible for ourselves." This more individualistic view of illness was from an acculturated Pueblo woman who lived, worked, and married outside of the pueblo.

**Conclusion**

In the Pueblo world view, health and sickness are perceived as a phenomenon of the community body as well as the individual, hence conflicting with the biomedical perception of these qualities as limited to the individual body. The Pueblo social etiologies of witchcraft and taboo violation have been presented as examples of sickness originating in the individual's interactions with community members. The traditional Pueblo belief is that all misfortune, including death and sickness, emanates from disordered social relations. In my presentation sickness and death have been abstracted from the emic category
for as Romanucci-Ross described in Melanesia the "etic category of 'health cures'... would be subsumed under a much broader emic category of 'mishaps' which includes not only matters of the organic and mental health of human beings but also their general well-being or misfortune" (1977: 486). To the Pueblo the functioning of the entire universe rests upon the maintenance of proper social relations.

The maintenance of communal well-being and social integration involves traditional counseling ("advice giving"), communal ceremonial dancing, community healings, and the kiva religion. The ceremonial healing of individuals' illnesses by the medicine societies reinforces social norms since illness is seen to result from the traditional social etiologies of witchcraft and taboo violation. The role of healing in the maintenance of social integration has been described for several other societies (Comaroff 1982, Janzen 1978, Turner 1967). Janzen described therapy management in Kongo society (as notable for) the collective orientation of medicine. The whole diagnostic apparatus is sensitive to the social causes of physiological affliction....Western medicine focuses on the individual patient and leaves the social context of his illness in pathological chaos. Kongo therapeutic attitudes, like those in many other African societies, are composed to discern the social and psychosomatic causes of illness (1982: 9).

Turner's classic description of A Ndembu Doctor in Practice describes a similar association between healing and social integration of the community as

it seems that the Ndembu "doctor" sees his task less as curing an individual patient than as remedying the ills of a corporate group. The sickness of a patient is mainly a sign that something is rotten" in the corporate body. The patient will not get better until all the tensions and aggressions in the groups interrelations have been brought to light and exposed to ritual treatment (1967:392).
The loss of this role of healing as a force for social integration is a potential result of the introduction of biomedicine's individualistic ideology. Comaroff describes the effect of (bio)medicalization on western societies when

As a society, we experience ourselves less and less in terms of symbols and collective action which integrate the physical, social and moral dimensions of being, and more in terms of categories which radically dichotomize self and other, and...social and moral relations become eclipsed...(1982: 57)

The potential loss of the communal view of health and sickness, due to the acculturative effects of biomedicine, may have serious adverse effects on the social stability of the pueblos. The implications of the effects of acculturation are considered further in the concluding chapter of this paper.
Chapter Four: Biomedicine and Pueblo Culture

The complex relationship between Pueblo culture and biomedicine is explored in order to understand the utilization and comprehension of the biomedical system by the Pueblo population. The conflict between biomedicine and traditional cultures has been a major focus of medical anthropology. In the pueblos under examination the biomedical and traditional systems are in a relatively peaceful coexistence concerning the treatment of sickness. The Pueblo people have developed utilization patterns that allow them to obtain the desired benefits from both systems. The conflicts between biomedicine and traditional Pueblo culture may be of greater importance for health education efforts than for the treatment of individual sickness.

Indian Health Service

The Indian Health Service (IHS) is the primary source of biomedical health care for the Pueblo population. The IHS was administered by the Bureau of Indian Affairs until transferred in 1955 to the United States Public Health Service (Simmons 1969: 217). IHS programs include medical and dental care, social work, environmental health, and health education. The pueblos under study are served by a 55 bed hospital in Santa Fe; about 30 miles from Santa Clara, 70 miles from Taos and 60 miles from Picuris. Both Taos and Santa Clara have IHS health centers staffed by a
family physician, dentist, nurses, mental health counselors, and support personnel. Picuris has a small health station at which a medical clinic is conducted one morning a week by a nurse-practitioner from the Taos IHS clinic. Medical and pediatric specialists, obstetrician/gynecologists, surgeons, radiologists, and elaborate diagnostic technology are only available at the Santa Fe IHS hospital, therefore visits must frequently be made to Santa Fe.

Formerly the IHS paid for contract care from private physicians in the Taos area, but due to budgetary constraints this practice has been virtually eliminated. Approximately half of the births from Taos Pueblo women occur at the privately run Holy Cross Hospital in Taos and half are delivered at the IHS hospital in Santa Fe. Women presenting at the Taos clinic early enough, for safe transport, will be taken the seventy miles to Santa Fe before delivery. There is some utilization of private physicians in the Taos area by pueblo residents. This occurs with patients who have been dissatisfied with the IHS care or who are receiving Medicare. Since the local pueblo clinics are staffed by only one physician, a dissatisfied patient must go either to a private physician at his or her own expense or to the Santa Fe IHS hospital. Visits to Santa Fe are by referral from the clinics, but the Pueblo population has learned how to bypass this mechanism by attending drop-in clinic in Santa Fe and stating that they became sick while in Santa Fe.

Records from the IHS clinics and hospitals demonstrate that
these facilities are well utilized. All individuals interviewed had utilized the IHS clinic to some degree. To understand how the IHS system is viewed by the Pueblos, two areas are examined: 1) patient satisfaction and compliance with the IHS system and 2) potential conflict between the IHS and traditional Pueblo culture and medicine.

**Pueblo Patients Satisfaction With the IHS**

The Indian Health Service facilities and health care providers have traditionally been viewed with scorn by many Indian tribes. Complaints included the transient nature of the physicians, cultural insensitivity, and long waiting periods. Many of my informants stated that the IHS had improved over the last decade, a view also supported by IHS clinicians. One physician mentioned that when he first joined the IHS in the early 1970's, many patients complained of being treated by physician interns. This was not usually the case but such an impression was fostered by the use of a transient force of young physicians. The Pueblo population is concerned about IHS research since the communities believe that the IHS has previously utilized Indian populations as experimental "guinea pigs." Currently this is not a significant problem as the IHS Santa Fe branch conducts very little research.

Criticisms of the IHS are currently directed primarily at specific physicians rather than at the system as a whole. Common complaints about the IHS include long waiting times, the need to travel to Santa Fe for specialized services, and the lack
of access to medical care at Picuris pueblo. The complaint about long waits is, of course, common to medical clinics throughout the country but the problem is accentuated at the Santa Fe IHS by a policy of accepting drop-in and scheduled patients on an equal basis. The need for Pueblo patients to frequently travel to Santa Fe for medical procedures and specialist appointments is essentially an economic decision by the IHS. The provision of radiology and clinical laboratory services at the Taos IHS Clinic, and the expansion of contract specialist care, would greatly reduce the number of visits to the Santa Fe IHS Hospital, however the IHS deems the cost to be excessive.

Medical care service available at Picuris for the population of three hundred is limited to the clinic conducted one morning each week by a nurse practitioner. At all other times residents are expected to travel either twenty miles to Taos or sixty miles to Santa Fe. The community health representatives (CHR's) are a federally funded program utilizing pueblo residents, trained as emergency medical technicians, who perform a variety of services including twenty four hour ambulance runs to hospitals, and home visits to sick members of the community. Federal funding essential to the CHR program may be withdrawn by the federal government. A CHR explained that one reason for the potential budget cut was the belief that the CHR's and IHS clinics overlapped their services. This may be true at the pueblos with IHS clinics, however at Picuris the CHRs are the only health workers at the pueblo. The delivery of health care to the Native
American population is a legal obligation of the federal government, however currently this obligation is not being adequately met at Picuris pueblo (Simmons 1979: 217).

During my interviews many informants expressed dissatisfaction with specific physicians and other health personnel. The physicians' personal qualities were the source of many of the complaints. Interpersonal problems with IHS health center clinicians may be exacerbated since each clinic has only a single physician. At two of the three clinics, the consensus of the community was that their primary clinician was not providing acceptable care. The situation at one pueblo had deteriorated to the extent that many pueblo residents were traveling to Santa Fe to see other physicians. At this clinic some Pueblo women requested the nurse practitioner for their pelvic exams rather than the physician. The dissatisfaction of Pueblo patients with their clinic physician may be a significant factor affecting utilization of biomedicine.

The Indian Health Service and Pueblo Traditional Medicine

The traditional Pueblo healers and the Indian Health Service have few interactions. Although, Navajo traditional healers are being invited to utilize and develop facilities for their traditional medical practices at IHS hospitals and health centers (Bergman 1973: 663-666), cooperation between traditional Pueblo medicine and the IHS was considered undesirable by Pueblo informants. A Pueblo health educator explained "Navajos
are less hesitant to talk about their traditional beliefs. Pueblos believe it would be profaning the Indian medical society. I would personally suggest a person see a medicine man but not as a (IHS) professional. There is nothing wrong with using both systems-in an individualistic way each person combines beliefs in their own minds." Traditional healers have visited the IHS clinicians a few times to discuss traditional practices. Traditional healers may visit patients in the Santa Fe hospital and perform healing ceremonies without obstruction from the IHS, according to the medical director.

Some IHS physicians will recommend a visit to a traditional healer. One physician explained that "Sometimes when we are aware that we are not doing well with treatment we share the patient with the traditional practitioner and even suggest they be consulted." Such a suggestion must be made with great care if the patient is not to be insulted. Pueblo patients have, on occasion, interpreted such a recommendation as either a refusal to treat their sickness or as an inference that their problem is psychosomatic. The Pueblo population uses several healing systems; thus when an individual goes to an IHS facility he or she may have already received a traditional healer's treatment. Inquiries regarding patients' use of traditional medicine have met with complaints to the IHS administration that the physicians are prying into the patient's private life. Since Pueblo patients rarely discuss traditional medicine at clinic visits, physicians with many years of experience treating Pueblo
patients are unfamiliar with traditional Pueblo illnesses. The failure of patients to discuss traditional medicine or folk illnesses may lead Anglo health workers to underestimate the role of Pueblo traditional medicine. When references are made to traditional medical practices they are vague such as "Of course you know we'll have to do a ceremony before he (her child) goes away (to custodial care)."

Anglo health workers and the Pueblo population have different viewpoints regarding the role of traditional healer in the health network of Taos Pueblo. The different viewpoints result in part from the Pueblo peoples' skill at compartmentalizing their different health beliefs and practices. The Taos traditional practitioner is viewed by Anglo clinicians as merely a bone setter and massager. A clinician who had worked at a Pueblo clinic for many years said that the medicine man at Taos did a "very limited amount of work" and did not use herbal treatments. He was described as a "helpful influence in his place which he doesn't go beyond." This view is inaccurate because the practitioner is involved in treating a relatively broad spectrum of illness and has an important role in the treatment of the psychosocial aspects of sickness.

Although conflicts between traditional Pueblo culture and biomedical treatment practices are unusual, two examples were observed during my field research. During the eighteen-month kiva training of Taos pueblo boys, they are forbidden to take medications or come to the IHS clinic. This has recently led
workers at the Taos IHS clinic to suggest "pre-Kiva checkups."
The conflict between the need for medical care and the
requirements of religious training, however, has not resulted in
any significant problems, perhaps because the boys "do come to
clinic if they are very sick" according to an IHS nurse. I observed
a episode of therapeutic conflict involving a Picuris woman with
painful arthritis. She wanted to go to a traditional healer for
massage of her joints, but was told by an IHS clinician not to
massage her ailing joints. Here is an instance where the IHS
nurse may not have appreciated the potential for significant
therapeutic effect from a visit to a traditional massager even if
the massage itself is not deemed physiologically useful. Such
conflicts may occur because IHS clinicians underestimate the
role of traditional practitioners in comforting individuals with
chronic disease.

A few cases were described to me in which the use of
traditional medicine may have contributed to deaths from cancer
or gastroenteritis, since the patient deferred seeking biomedical
treatment. A physician describing such cases said he believed
they were rare as the "medicine men are not idiots and refer
often to western practitioners." This attitude was reflected in
an interview with a traditional practitioner when he described
his ability to treat some cancers but a reluctance to do this
since cancer is a very serious disease. Certain Taos residents lost
a degree of confidence in traditional healing when an internal
organ manipulation apparently led to a ruptured appendix; the
traditional healers have a stake in avoiding overtreatment of sickness viewed as more amenable to biomedical treatment. 

**Pueblo Compliance With Biomedicine**

The issue of compliance was investigated extensively during interviews with health workers and Pueblo patients. The assessment of the prevalence of noncompliance can aid in the assessment of the level of conflict between clinician and patient models of sickness and well-being. Compliance is the term used to denote whether a patient follows his or her clinician's treatment plan. The use of 'compliance' as an assessment tool has been criticized as connotating an authoritarian doctor-patient relationship; an alternative model is a doctor-patient relationship built on informed consent and negotiation rather. The Pueblo population extensively utilizes the Indian Health service and biomedicine for medical care; however the degree of their compliance with physician's instructions is less clear.

The clinicians interviewed believe that the Pueblo population has a higher rate of compliance than the Anglo or Spanish populations in the Taos area. Of the three ethnic groups, it is the Pueblo population that seldom voices objections to immunizations or medications. The Anglo population in the Taos-Santa Fe area maintains a high degree of skepticism towards biomedicine because the patients' rights and holistic health movements of the 1970's have exerted a strong influence. The Spanish population utilizes curanderismo and a traditional
health system based on hot-cold divisions which sometimes conflict with biomedical treatment plans.

My initial impression from interviewing clinicians was that the Pueblo population truly had a high degree of compliance with their treatments. However several clinicians mentioned that Pueblo patients often forget to take their medications or stop taking them after several days. This was attributed to a relaxed attitude concerning the importance of the prescribed medicine rather than a decision not to use the medication. An example of such an attitude was the response of a clinician to a question whether Pueblo "parents are suspicious or fearful of ordinary medical interventions such as childhood immunizations, the use of antibiotics, etc?" She replied that this is "rare. They are very compliant about bringing kids in and actively want the drugs for treatment. Our goal of 95% immunizations is always reached." She later added that the Pueblo population "doesn't place much emphasis on taking medications. Parents are so intent on keeping their jobs and aren't home to give out medicines." Another nurse working at at an IHS clinic stated that she could not recall any cases of medical treatment rejection in her almost ten years at the pueblo, although the Pueblo patients were rather prone to "forgetting " their medications. She added that "like anyone else they tend to stop taking medicine when they feel better, although they may still see the massager."

The interviews with individuals from the pueblos revealed a distinctly different attitude toward medication and compliance. I
was told that patients often do not want to take their medications for a variety of reasons such as fear of the medicines, viewing the medicines as "white", medicine serving as a reminder that the patient is sick, or simply because it is a nuisance. None of the Pueblo patients interviewed mentioned these reasons to the clinicians as the basis for their noncompliance. Rather they explained that they "forgot" to take the medicine. The conclusion is that the clinicians believe the Pueblos are a very compliant but rather forgetful population concerning their medical treatment because this is the explanation the Pueblo population prefers to utilize.

Pueblo avoidance of open noncompliance has it's roots in Pueblo cultural values of social harmony and the historical relationship with the Spanish and Anglo population. The importance of harmony in maintaining health and preventing witchcraft was described in detail in chapter three. An informant explained that Pueblo patients seem very compliant with western medical clinicians because "We are a very agreeable and polite people, unlike Plains Indians, and will do anything to create harmony with health (care) providers or anyone else." Other Pueblo informants described themselves as a 'sensitive' people who liked to avoid conflict. An Anglo woman who has lived for years at the pueblo explained that noncompliance concerning diet and medicines prescribed by the IHS clinicians is commonly hidden because "The Pueblo people have historically been forced to do a lot of things or suffer (the
consequences) and therefore are good at appearing to do things on the surface." This statement alludes to the experience the pueblos had with hiding their traditional religious practices from Spanish and Anglo missionaries and governments. The Pueblo people may appear rather compliant when talking with Anglo health workers; however one must not confuse a compliant attitude with compliant behavior.

The Pueblo peoples' desire to shield noncompliance from the view of biomedical observers is similar to the behavior utilized to shield the kiva religion from missionaries. A key to the continuity of the indigenous religion was the maintenance of the facade of adopting Catholicism. The "adoption" of Catholicism under the influence of missionaries did not result in the atrophy of the traditional kiva religion. Catholicism and the native religion coexisted and were apparently seen as compatible yet separate and distinctive. The maintenance of a dual religious system in which the material culture of Catholicism has been adopted without effecting the core belief systems of the native religion has been described in the compartmentalization theory of Pueblo acculturation (Spicer 1954 and Dozier 1961). I propose that a similar process occurs with sickness treatment systems and may be therapeutically adaptive as it allows the Pueblos to utilize the benefits of each healing modality. As one pediatrician explained "They know how to take from each system what it can offer." Despite the pediatrician's treatment of Pueblo children she had no knowledge of traditional Pueblo illnesses and
treatments. This was contrasted with her rather extensive knowledge of curanderismo and Spanish-American folk medicine.

**Therapeutic Choice**

A Pueblo patient seeking medical treatment has a wide range of therapeutic options. A Taos resident may utilize a traditional Taos massager /medicine man, the Taos IHS clinic, a Native American Church (Peyote) meeting, a ceremonial healer at a distant Keresan Pueblo, or the religious fellowship of the kiva. Medical anthropologists have proposed several models for how therapeutic choice decisions are made in different cultures. An example is the "hierarchy of resort" (Romanucci-Ross 1977) in which the sick individual proceeds from one practitioner to the next in search of cure with the initial choice based upon the category of illness. Such a 'hierarchy' does not characterize the pueblos in which a multitude of resources are often used simultaneously, although the choice of healers is often based on the etiology of the sickness. In Janzen's description of medical pluralism in lower Zaire the therapeutic decision making is made by a "therapy managing group" who determine how the sick person may best be cured (Janzen 1978). Aspects of such an approach can be seen at the pueblo where the family often selects the therapeutic resource based upon their network of contacts to various traditional healers as well as the healers perceived effectiveness for the particular sickness. Although the therapeutic choices of Pueblo residents was not charted in the fashion of Janzen or Romanucci-Ross, certain patterns became
clear as treatment histories were discussed during interviews.

The treatment of sickness at the pueblos often involves the use of more than one resource. An example would be a Taos man injured in a bad car accident who may be seen in an IHS clinic for the initial treatment of his traumatic injuries, then by the traditional healer at the pueblo for massage and manipulation to speed the recovery process, and finally may travel one hundred miles to participate in a healing ceremony at a Keresan pueblo to diagnose and treat witchcraft as an etiological factor in the accident.

Certain illnesses will usually be treated by a particular healing system. Pneumonia, otitis media, and other infectious diseases are typically considered to require biomedical treatment at the IHS clinic. Biomedicine may be sought outside of the Indian Health Service when the individual or family is unhappy with the clinic physician, the IHS physician's treatment has not produced satisfactory results, or the patient is on Medicare or Medicaid. A pediatrician who occasionally treats Pueblo patients explained that unless the Pueblo patient is on Medicaid they have usually been through both the IHS and a traditional healer before reaching his office. Traditional Pueblo illnesses such as flipped liver, the glass, or evil eye are the exclusive realm of the Taos traditional healers. If an individual at Taos Pueblo, which lacks medicine societies, is experiencing disharmony attributed to witchcraft in his or her family life then the likely therapeutic choice is to travel to one of the
Keresan pueblos for a ceremonial healing. Cochiti, a Pueblo one hundred miles to the south, is a frequent choice for ceremonial healings at which the witch is named and witchcraft is exorcised. Ceremonial Keresan curing is often utilized for serious illnesses for which there is no biomedical cure (e.g. epilepsy, malignancies) according to informants.

The role of the kiva based religion for healing was difficult to assess during my fieldwork as secrecy shrouds the kiva. The healing in the kiva has been described to me as "general healing" of the entire person rather than a treatment for specific sickness. An informant explained that "all the men who are in the kiva at any time are healing themselves." The women are not active participants in the kiva, however an older woman may volunteer to care for the kiva boys during their training to help heal herself and her family.

The decision about which therapy to choose for a sickness episode involves the entire family. When an individual travels to the Santa Fe IHS he or she will often be accompanied by five or six family members. If traditional curing is a desired option then the elders in the family will make the arrangement. An IHS physician explained that the prospective grandmother mother plays an important role in decision making processes for pregnant women in their twenties, however if the pregnant woman is less than twenty then all decisions are made by the future grandmother. The physician considered this to be clinically useful knowledge because "If a seventeen year old girl
comes in alone then we know we are in for trouble. Perhaps we should then encourage the grandparent to come in (to aid in compliance). Most physicians realize the extra effort (to work with relatives) is worth the increased compliance."

**Conclusion**

Pueblo traditional medicine and the biomedical Indian Health Service rarely come into conflict, although individuals often simultaneously utilize the two systems. The Pueblo people do not desire formal cooperation or integration between the biomedical and traditional systems. There was no support from informants for the introduction of traditional healers to the IHS clinics, as is occurring with the Navajo, nor for biomedical IHS clinicians to discuss traditional Pueblo medicine with patients. Culturally sensitive clinicians should respect the Pueblo desire to maintain a separation between the two systems, and avoid attempting to force a biomedical view of illness on Pueblo patients.

The conflicts that take place between the IHS and Pueblo patients are not due to traditional Pueblo medical practices. Conflict with the IHS results from the need for Pueblo individuals to occasionally travel long distances to reach the IHS facilities and the lack of acceptance of particular biomedical clinicians by the communities they serve. The Pueblo desire for social harmony can lead biomedical clinicians to erroneously view a compliant attitude as evidence of compliant behavior and patient satisfaction. An appreciation of Pueblo communication
styles by biomedical clinicians can be expected to increase patient satisfaction. Specific distinctions between Anglo and Pueblo communication patterns and their impact on clinical medicine are discussed in chapter five.
Chapter Five: Implications for medical and public health programs

Compartmentalization As a Model for Biomedicine's Role as an Acculturative Force

In this concluding chapter the compartmentalization theory of Pueblo acculturation is introduced as a framework for the development of medical and public health programs designed to minimize cultural disruption. Acculturation has been defined as "the cultural change that is initiated by the conjuction of two or more autonomous cultural systems" (Social Science Research Council 1953: 974). In this analysis the effect of biomedicine on core cultural patterns is examined, in contrast to previous studies of biomedicine's acculturative role which have primarily focused on health changes resulting from the introduction of biomedicine including altered childbirth patterns, disease frequency, and health status (Kunitz 1983; McElroy and Townsend 1979). Pueblo acculturation and compartmentalization will be discussed in a more general sense prior to the consideration of biomedicine as an acculturative force.

The Pueblos have resisted acculturation from the surrounding Spanish and American cultures to a greater degree than other Native American societies, although the pace of acculturation has advanced rapidly since World War II. The last few decades have introduced two strong acculturative forces:
television has brought the contemporary world into the daily life of Pueblo society and the construction of single family houses has altered the traditional extended family networks. Despite these influences the core values and beliefs of Pueblo culture have remained largely intact. Ethnographers have attributed the Pueblo's resistance to acculturation to the Pueblo world view and the effect of the compartmentalization process.

Acculturative processes have been attenuated by the Pueblo world view which sees "their society as in a "steady state", unfolding according to a preordained pattern or plan and continuing in a "timeless" existence. The proper procedures are established in the origin myths and embodied in tradition as interpreted by the priests and leaders" (Eggan 1979: 234). The steady state world view and Pueblo socialization process also functioned to resist cultural change originating within the Pueblo by promoting the cultural conformity attributed to Pueblo societies (Linton 1940: 455 and Goldfrank 1945: 522).

The "compartmentalization" process was introduced by Spicer (1961, 1962) and Dozier (1964) as an explanation of the Pueblo's resistance to cultural change. Spicer defined compartmentalization as the "tendency of all the Eastern Pueblos to accept .... certain traits and complexes which remained peripheral to their major cultural orientations and to resist traits which would have altered the main orientation of their culture" (Spicer 1954: 665). This theoretical construct built upon Reed's earlier observation that extensive incorporation of
"material culture (from the dominant societies) was accompanied by little or no change in nonmaterial culture" (Reed 1944: 67). The prime example of compartmentalization was the adoption of the churches, masses, and holidays of Catholicism with minimal effect on belief systems of the native religion. I am proposing that the compartmentalization model can be applied to health and medical practices to explain the retention of indigenous models concerning health and sickness despite the widespread utilization and acceptance of the material culture of biomedicine. An understanding of compartmentalization is utilized in this chapter as the theoretical basis for the introduction of medical and public health programs to the Pueblo population.

Biomedicine can potentially function as a potent acculturative force on Pueblo culture as it's utilization increases among the population. As the ideology of biomedicine is accepted into a culture it exerts a strong influence on the basic sociocultural patterns of the society. Biomedicine, as a cultural system, can be viewed as having a material culture as well as belief systems. The material culture includes pharmaceutical drugs (antibiotics, digitalis, insulin), diagnostic equipment (stethoscopes, x-ray machines, electrocardiogram instruments), clinical laboratory facilities (bacteriological culture, blood analysis, histological studies), buildings (hospitals, clinics, operating rooms), and therapeutic technology (cobalt radiation, angioplasty, dialysis machines). The belief
systems include the mind/body dichotomy, a distinction between medicine and religion, an emphasis on individual as opposed to communal well-being, and an etiological focus on pathogen rather than host. These are, of course, the belief systems of the western societies that developed biomedicine. Biomedicine can be a powerful tool for the introduction of this worldview into nonwestern societies as has been attempted historically by medical missionaries (E.R. Brown 1979).

Individuals experiencing sickness are potentially quite receptive to the ideologies of the healing systems being utilized. As Comaroff explains in her essay Medicine: Symbol or Ideology:

Dysfunction of the body disturbs the unquestioned harmony between physical, social, and moral being, and it sets in motion the search for reconstitution. This experience often challenges the validity of existing conceptual orders and may give rise to anxiety and heightened self-consciousness. The onset of illness frequently occasions the perception of more deep-seated contradictions in the encompassing sociocultural order (Comaroff 1982: 51).

Comaroff emphasizes the need to acknowledge the ideology of biomedicine which has it's "basic assumptions [are] contained in a set of symbolic forms which are fundamental to the epistemology of modern industrial capitalism" (1982: 61).

Comaroff's analysis is innovative in distinguishing the ideology of biomedicine from the material culture. Aspects of the ideology emphasized include "rational self determination (which) predisposes us to hold individuals responsible (if often indirectly) for their own afflictions" and the "stripping away (of) the social and environmental underpinnings of disease" (1982: 57,
would directly contradict the traditional concepts of health and well-being as emanating from the proper functioning of the pueblo's social networks. Biomedicine can thus be seen as an agent for the introduction of the individualistic western ideology of self determination in which one's health or sickness, wealth or poverty, and happiness or despair are seen as the result of intrapersonal conflict rather a disturbance of the social milieu. In considering the effect of the acceptance of biomedicine on pueblo worldview an essential question is whether the utilization of biomedicine is accompanied by an acceptance of it's ideology. Romanucci-Ross's description of biomedicine in Melanesia offers a contrasting situation in which "European medicine is generally not understood as a theory or explanation. It is impersonal and amoral, therefore it is incomplete and descriptive rather than explanatory....On this basis it is not morally applicable as a sanctioning event" (1977: 485). To the extent that biomedicine has not been integrated into Pueblo world view as an etiological theory, but is only pragmatically utilized as a source of medical care the impact on Pueblo cultural patterns will be minimized.

The Pueblos desire the material culture of biomedicine. When experiencing the trauma of a motor vehicle accident they expect to have an IHS facility to treat their physical injuries. A Pueblo stricken with pneumonia will go to a clinic to receive antibiotics. Immunizations are enthusiastically accepted as a technique to reduce the toll of childhood illness. It is the
acceptance of the ideology of biomedicine that has been resisted by the Pueblos. As the ideology is implicit rather than explicit, nonwestern societies should not be viewed as accepting biomedical etiology when utilizing it's material culture. When requesting biomedical material culture from the dominant society the pueblos have attempted to maintain control of the impact on the core of Pueblo culture. An example was the 1977 request to the U.S. Congress by the All Indian Pueblo Council that Indians be excluded from proposed national health insurance programs to ensure that "Indians may continue to build their own unique programs (Senate Committee on Human Resources 1977: 13)."

The compartmentalization process which shielded the native Pueblo religion from Catholic missionaries may function to minimize the effect of biomedicine on core cultural patterns. Pueblo health concepts are integrally linked to the social control and communal identity of the villages. The belief in witchcraft and tabooc violation as social etiologies of illness acts as a social control mechanism to maintain the conformity characteristic of pueblo society. The view of health as a communal phenomenon, embodied in both the maintenance of village harmony and the network of social relationships, functions to associate individuals' self interest with the well-being of the entire village. These concepts contrast with the individualistic biomedical ideology in which the environmental and social etiologies of illness are minimized. The
increased health status and longevity of western industrial societies are due primarily to the improved social and environmental milieu rather than to advances in medical care (McKeown 1979).

I am proposing that compartmentalization, a theoretical construct of sociocultural anthropology, be utilized as a guiding principle for culturally sensitive medical and public health programs directed toward the Pueblo population. The goal of these programs should be to make available the material culture of biomedicine with the minimal disruption of Pueblo culture. As compartmentalization is a Pueblo process that has been occurring for centuries it's use as a theoretical model for development will reduce cultural conflict. The principle area of potential ideological conflict is in the development of health education and disease prevention programs based upon biomedicine, rather than from the provision of biomedical clinical care. In the next section a short summary of the history of applied medical anthropology will be presented to place the discussion of public health programs in context.

**Historical Overview of Applied Medical Anthropology**

The initial efforts of of applied medical anthropology originated in the 1950s with the work of Foster (1952), Adams (1953, 1954), Paul (1955), and others in Latin America. The primary aim of these efforts was to encourage the participation of Third World recipients in the public health programs being offered. This perspective was clearly stated by Foster (1952:
10) "The success of public health programs depends to a very great extent on persuading a majority of people in a given area to cooperate with the health authorities, to change certain habits, to give up old practices, and to adopt new ones." The anthropologists were to help make the programs successful by introducing an awareness of social, cultural, and psychological factors. These early anthropological efforts have been criticized for their unquestioning participation in these public health programs.

During the 1960's the work of anthropologists began to assume a more critical context. Paul (1969: 40) stated that "Questions of how to induce response to a program should be set in the larger frame of whether to promote a given program at all." By the 1970s and 80s critical social scientists were examining the economic realities and sociocultural disruption occurring due to the introduction of biomedicine (Comaroff 1982, Illich 1976). Comaroff describes the effect on the sociocultural fabric of Southern African societies of the introduction of biomedicine, and the germ theory which functions as a "new orthodoxy... stripping away the social and environmental underpinnings of disease [cite]." Currently applied medical anthropologists are currently involved in all three historical roles: 1) Designing of culturally appropriate public health programs, 2) Facilitating the acceptance of public health programs by the targeted community, and 3) Critically studying the effects of biomedicine on the sociocultural fabric of third
world communities.

Applied clinical medical anthropology developed in the 1970s by examining the role of culture in the doctor-patient interaction (Kleinman 1978, 1980; Good 1981; Young 1982; Taussig 1980; Harwood 1981). Many papers provided relatively brief descriptions of traditional medical practices and beliefs of specific cultures directed toward health care providers. A potential misapplication would be to assume the general application of such analyses to all patients of the particular cultural group; the sensitive clinician should be aware of the potential for idiosyncratic exceptions to the more general cultural patterns. Kleinman introduced the explanatory model framework to examine the patient’s perceptions and response to his or her illness. The elucidation of the explanatory model has been utilized as a framework for improving doctor-patient communication and patient satisfaction. Medical anthropologists have attempted to interest physicians in clinical medical anthropology by arguing that patient compliance will be improved if the physician understands the patient’s model. The explanatory model approach has been criticized for neglecting to consider its potential for promoting medicalization and social control by enforcing acceptance of the biomedical explanatory model; however an understanding of Pueblo explanatory models may alternatively permit clinicians to avoid conflicts between traditional Pueblo and biomedical ideologies.

**Clinical Medical Practice With Pueblo Populations**
The description of Pueblo health practices and models presented in this paper can be applied to clinical biomedical practice. Two essential areas of Pueblo culture for clinicians to consider are communication styles, and traditional health beliefs. An understanding of these areas should facilitate doctor-patient communication, increase patient satisfaction, and improve compliance with negotiated treatment regimens.

An awareness of several distinctive aspects of Pueblo communication styles can be applied to the clinical setting. The areas of direct questioning, counseling, and interpersonal harmony are addressed. Direct questions are considered to be invasive and in poor taste by Pueblo populations, as discussed extensively in the methodology section. The traditional structure of the clinical interview demands that the clinician, in search of a biomedical diagnosis, direct a series of questions to the patient throughout the history and physical examination. By altering the format of the interview the clinician can minimize the need for directed questions. The clinician may permit the patient to tell his or her history as a relatively uninterrupted narrative followed by questions. Such an approach may consume a longer time period than the more directed questioning approach, however the elicited history will have increased accuracy and comprehensiveness. In addition the development of medical records which minimize the number of nonessential questions concerning the individual's social and family history may further reduce conflict.
The maintenance of interpersonal harmony was presented (chapter 3) as a principal Pueblo concept of health. A Pueblo patient desiring to maintain a harmonious relationship with his or her clinician will not actively express conflicts with prescribed treatment. The Pueblo patient is likely to maintain a compliant attitude despite noncompliant behavior. When a Pueblo patient "forgets" to take his or her prescribed medications the clinician may consider this as a cue to investigate potential concerns regarding the treatment program.

Traditional Pueblo counseling ("advice giving") techniques were not designed to increase the intrapersonal understanding of the individual being counseled. Counseling approaches that attempt to facilitate introspection may be particularly inappropriate with older Pueblo individuals. The utilization of the authoritarian traditional Pueblo counseling style is inappropriate for Anglo biomedical clinicians who lack the cultural context of traditional Pueblo counselors, hence the counseling of some older Pueblo patients may be most appropriately conducted outside of the biomedical clinics. Younger pueblo members have been more amenable to Anglo style therapeutic counseling, perhaps indicating an increased susceptibility to the ideological influence of biomedicine due to the weakening of the traditional culture.

Traditional medical practices present few conflicts with biomedical treatment and Pueblo patients do not want their biomedical clinicians inquiring about their traditional practices.
Even so a basic understanding of Pueblo traditional concepts and practices will be of benefit to clinicians. Clinicians should note the importance of the social etiologies of witchcraft, taboo violation, and interpersonal disharmony. These concepts may cause sick Pueblo patients to emphasize their social and family problems. A medical student working in an IHS clinic noted to me that virtually all the seriously ill patients discussed their sickness in relation to family problems. The clinician should acknowledge the patient's social concerns and avoid the tendency to discount the patient's desire to attribute sickness to social etiologies. The role of the clinician is to comfort his patient rather than attempt to discredit traditional disease etiologies.

The utilization of traditional healers for Pueblo folk illnesses does not present a conflict with biomedical treatment as the practitioners will refer seriously ill patients to the clinic. The most useful approach for biomedical clinicians is to avoid questioning Pueblo patients concerning traditional treatments or practitioners. The explanatory model approach in which the clinician attempts to determine the patient's concepts concerning the etiology of his or her illness is inappropriate for many Pueblo patients who will not want to discuss traditional etiologies and practices with the clinician. Clinician-patient negotiations to reconcile a traditional etiology with a biomedical treatment plan may place biomedicine in the role of an acculturative educational force and must be based upon a stronger justification than a clinician's curiosity. The
understanding of traditional health practices and concepts may be more effectively applied to the development of health education and disease prevention programs.

**Health Education and Disease Prevention Programs for Pueblo Populations**

Health education and disease prevention programs can potentially ameliorate several of the pueblos' public health problems including obesity, alcoholism, suicide, type II diabetes, hypertension, and motor vehicle accidents. Typical American health education campaigns have focused on the individual and utilized the biomedical model of health as theoretical background. The implementation of such health education programs among the Pueblo populations has met with minimal success, according to informants. The design of health education programs incorporating an awareness of Pueblo health concepts, including communal health and well-being, offers the potential of greater success due to diminished cultural conflict between biomedical and traditional Pueblo health etiologies.

Although the Pueblo individuals interviewed universally opposed any integration between traditional practitioners and biomedicine for the provision of medical care, the use of traditional Pueblo health concepts in health education campaigns was perceived favorably by several informants. Pueblo health concepts, unlike traditional medical practices, are not in the realm of secrecy. A man from Santa Clara pueblo who teaches a college course in which pueblo health concepts are discussed in
comparison to holistic health, biomedicine, and eastern healing systems has engendered no apparent controversy among pueblo residents. Obesity and alcoholism will be briefly explored as examples to illustrate the incorporation of an understanding of traditional health concepts and cultural variables into the development of health education and disease prevention programs.

**Obesity**

Obesity among the Pueblo population is a serious public health problem due to its role in in the etiology of hypertension and diabetes. Health education campaigns directed at obesity can utilize an awareness of traditional concepts of body image, healthy food, and eating.

The frequency of communal feasting, its social role in uniting people at the pueblo, and the cultural requirement that one accept all invitations to eat during feast times were discussed in chapter three. An appreciation of these beliefs can be incorporated into the design of weight control programs. An understanding attitude on the part of clinicians concerning the need to deviate from special diets at feast times will diminish conflicts with patients.

The requirement that only traditional Pueblo foods are to be consumed during kiva initiation, and assertions concerning the inherent healthiness of "Indian" foods indicate that a distinction is made between traditional Pueblo and western foods. These beliefs are associated with the notion that the population was
healthier prior to the widespread introduction of European and American foods. Educational campaigns emphasizing the need to restore the traditional good health of the Pueblo communities may function to encourage the consumption of the healthier traditional grain based diet as opposed to the sugar and fat laden western diet. These programs should also indicate that certain traditional foods, such as lard, were not a health issue for a physically active farming population but do currently present a problem as occupational patterns have shifted. The abandonment of farming as the principal occupation has resulted in widescale unemployment and underemployment among the Pueblo population. A discussion of the altered employment patterns presents a useful reply to the belief that any "Indian food must be good" since these foods are associated with the past generations perceived healthiness. As the Pueblos view health on a communal level, the health education program should accentuate that a healthy diet will keep the entire community healthy, rather than focusing exclusively on the overweight individuals. Since meals are often prepared for an entire extended family, a broad attempt to effect dietary change is most practical.

Obesity was traditionally viewed as a sign of health in the Pueblo culture. To be obese was not viewed as unattractive, but as a sign that one's family cared about you. A forty year old Pueblo woman recalled her childhood when "if an individual was skinny then it meant they may not be getting along with their
spouse." An obese woman in her forties recalled "chubbiness" as a sign of health and said the "attitude was (that) we eat because we are happy." When she was a child her mom would try to curb her appetite but her Dad would say "I buy her food because I love her." This reflects the traditional belief that parents who loved their children encouraged them to eat more.

The introduction of television into the pueblos and greater exposure to the dominant Anglo and Hispanic societies has resulted in an alteration of the Pueblo concept of desired body image. Health concerns were not the prime factor in the desire for slimmer bodies, rather it is the realization that the dominant Anglo culture considers a slender physique to be sexually attractive. The changing attitudes concerning body image and the subsequent need for exercise and dieting have been greeted with ambivalence by segments of the Pueblo population. A Pueblo woman derisively described the goal of an aerobics program as being "to turn us into Indian barbie dolls. Changing shape is a well meaning goal of exercise classes but along comes the added component of the women's magazines-thinness and vanity. Competition is involved in weight loss and we are not really competitive types." Health education programs directed towards dietary change should avoid the suggestion that the goal is for the Pueblo population's physique to resemble the Anglo and Hispanic ideals as this will promote resentment by older Pueblos.
Alcoholism

Alcoholism affects the health of the pueblos by adversely impacting on the social framework and increasing disease morbidity. The destructive effect of alcoholism on interpersonal communication and the villages' perception of communal well-being were described in chapter three. Motor vehicle accidents, suicides, and cirrhosis are leading causes of morbidity and mortality attributable primarily to alcoholism. An understanding of the communal nature of Pueblo society has implications for the design of alcoholism treatment and prevention programs.

The drinking patterns at Taos pueblo are distinguished from Anglo patterns by the relative rarity of individual drinking (Brown 1980: 94). Alcohol abuse most commonly occurs either at large social gatherings or with a group of male drinking partners. It is difficult to treat an individual alcoholic who is surrounded by a social group of drinkers. Brown (1980: 99) thus suggests that "the unit of treatment may be a group, the drinking partners..." as the Alcoholics Anonymous approach has failed due to the rarity of the pattern of individual drinking.

A study of alcoholism among Indian women suggested that a different therapeutic approach may be indicated. The ostracism of Pueblo women alcoholics from the community is accompanied by their subsequent removal "from participation in most family and tribal activities. Once this occurs, stigmatization fixes their alcoholic lifestyle and promotes increased severity of
abuse" (May et al 1985: 35-36). Hence among Pueblo women the treatment program will focus on the individual, with the primary goal being to reintegrate the individual into the community.

The Pueblo view of health as a communal phenomenon whose maintenance is the responsibility of each individual has implications for alcoholism treatment. Several informants described Pueblo alcoholics who had either reduced or eliminated their drinking habits upon assuming important religious roles in the kiva. Brown observed that Taos alcoholics had the ability "to abstain from drinking when...needed at the pueblo for ceremonial participation or ...strong family responsibilities" (1980: 95). Alcoholism prevention and treatment programs may be most successful when the individual’s responsibility to the pueblo is stressed, rather than the individual problems resulting from alcoholism.

Case studies: health education and disease prevention programs

The recommendation to incorporate traditional health concepts into health education and disease prevention programs can be supported by the presentation of several cases in which this approach has been successful with Pueblo population. The cases include a health education workshop at Nambe pueblo, a disease prevention program at Picuris, and IHS health education classes at Santa Clara pueblo.

An interesting phenomenon common to several of these cases is the utilization of concepts attributed by Pueblo
residents to both "holistic health" and traditional Pueblo health beliefs. Several informants described their perception of similarities between these models such as the emphasis on harmony, wholeness, and psychological state. Despite these similarities, a major distinction between the two models is that the holistic health model attributes sickness to the ill individual's personal behaviors (Crawford 1980 and Guttmacher 1979) but responsibility in the traditional Pueblo model may be dispersed across the community.

In the 1970s an innovative program was initiated at Picuris to utilize traditional Pueblo and holistic health techniques for disease prevention and treatment. A sweat lodge and hot tub were constructed and massage and exercise programs were developed. Chronic alcoholics were using the sweat lodge as part of a "purification" procedure. The project was viewed as a success by the pueblo but was halted when financial problems were encountered after the IHS would no longer economically support the project. The Anglo "holistic health" aspect did cause some initial hostility from the community. The tribal council of elders were divided in their opinions, according to one informant, since some members believed that the project was "going to far" since "this has been a traditional pueblo. We don't need the white man's world." A Picuris resident attributed these sentiments were to the project's overemphasis on the Anglo "holistic health" techniques (exercise and hot tubs) rather than traditional massage and sweat lodges.
A series of health workshops in which traditional concepts of health were emphasized were held at Nambe, a small pueblo fifteen miles north of Santa Fe. Indian artists utilized theatre and music to present traditional interpretations of "health and wholeness." An artist participating in the workshops explained that the goal was to:

say what the pueblos have (i.e. traditional understanding of health) is real...open up more of an awareness of a certain Indian philosophy of health. [To tell people] you already have that within you. It is diet and your own attitude...say "here you have [an awareness of health]." Recognize that it's all in the pueblo and don't be afraid to remind people that it's always been there.

In this statement he is suggesting the importance of emphasizing that health is integral to the Pueblo way of life and is not another aspect of life that must be adopted from Anglo culture. Such an approach can empower the pueblos to focus on health education and disease prevention as a matter of cultural pride. The popularity of these health workshops, which also included biomedical health education, was attributed by one of the presenting artists to the presentation of traditional concepts of health in the native Pueblo language.

A Pueblo health educator developed a program of disease prevention directed at Pueblo elders based on yoga and light exercise. Rather than use the term yoga she described the emphasis as "breathing and balance" because this emphasized the "similarity to the Pueblo way of being." She designed the program to incorporate several aspects of Pueblo traditional culture. The program included group walking as this was "traditionally a very Pueblo activity" for adult women. The gathering of traditional
"herbs for teas was another aspect of the project. Meals were included as she felt this "symbolizes nourishment of being."
which is the core of health education. Although this program had the modest goal of promoting exercise it is another example of the design of culturally appropriate health education.

**Conclusion**

Several cautionary notes must be presented concerning the application of the compartmentalization model to the development of medical and public health programs. Compartmentalization is not a universal theory of biomedical acculturation nor can it be applied to the development of health programs for all cultural groups. The Pueblos are unusual among native American societies in their cultural resiliency, despite close contact with the dominant Anglo and Hispanic cultures. Compartmentalization has been proposed as a theory to explain that resiliency. If indeed the hypothesis of compartmentalization occurring in response to biomedicine is accurate, then the Pueblo acculturative experience is a rather unusual one. The utility of compartmentalization as developmental policy is dependent upon the idiosyncratic Pueblo experience with acculturation. If the Pueblos have been relatively successful at compartmentalizing their use of biomedical material culture from the potentially destructive effects of biomedical etiology on their core culture, then we must consider whether this is a stable accommodation. Compartmentalization may be a transition process on the route to the acceptance of biomedical ideology. To prevent the eventual
introduction of biomedical ideology and its destructive influence on the pueblos may require that the ideology itself be altered. In presenting the distinction between biomedical ideology and material culture I have implicitly suggested that the two can be separated. The proposal to attempt to minimize the imposition of the ideology of biomedicine while offering its material culture is a reformist approach. If one accepts that the mind body dualism, focus on pathogen rather than host, and individualistic focus are ideologies rather than objective, scientific tenets, then we can consider their actual separation from biomedical culture. Such an approach requires the development of new medical models and ideologies.
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