ADAPTIVE MYTH MAKING: AN ANALYSIS OF THREE AGUARUNA NARRATIVES

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Introduction

Medical systems, like all cultural phenomena, are dynamic and adaptive in response to change. This paper examines some ways in which ethnomedical theories of the Aguaruna Jivaro have changed as a result of the introduction of foreign diseases, epidemics, and of contact with cosmopolitan medicine. The process of change is empirical and those changes that become permanently incorporated have positive adaptive value (1).

Discussion will focus on the ways in which the Aguaruna Jivaro have incorporated the concept of epidemic and non-epidemic introduced diseases into the Aguaruna ethnomedical system and the impact of "cosmopolitan medicine" (after Dunn 1976) on the theory and practice of shamanic healing.

In order to set the stage for discussion, I will first provide a brief description of epidemiological theory supporting the introduction of epidemic disease at the time of contact. I will then recount some relevant Aguaruna medical theories and treatment procedures. This background will allow me to then describe different types of strategies employed to cope with the medical and ethnomedical consequences of both long term and current contact and to evaluate their adaptive or functional value.

The Aguaruna reside in the rainforests of northcentral Peru. The research reported here was conducted during the decade of the 1970s (2). Shaman collaborators included one *tajimat iwishin*, one *napo iwishin*, and one *kukam iwishin*. Although the term *kukam* literally refers to Cocama Indian, both Aguaruna and Shuar (a related Jivaroan population in Ecuador) have been trained in this tradition (cf. Harner 1972). Currently, all three are shamanic specialities incorporated within the Aguaruna ethnomedical system. The *kukam iwishin* also claimed to have undergone initiation as a *napo iwishin* and as a "Peruvian" shaman.

Small scale societies as virgin soil populations

It can be said that throughout history the large populations of the most developed nations have acted as reservoirs for the perpetuation and dissemination of disease to small scale societies. Subsequent to contact, infectious and epidemic diseases have disrupted the biological equilibrium and social order while cosmopolitan medicine has undermined the efficacy and moral authority of traditional medicine. The discovery of the New World presented no exceptions. Perhaps the most significant change that was wrought throughout the continent of South America and, indeed, the whole of the Americas was the introduction of old world diseases. The consequences of epidemics were disastrous in terms of decimation of indigenous populations and of widespread social disruption (Crosby 1972; Neel *et al.* 1970; Ribeiro 1971).

Epidemiologic theory states that small, isolated populations cannot maintain epidemic diseases. When an epidemic infectious disease is introduced into a population group for the first time, 100 percent of the people are susceptible. The organism is transmitted from person to person until everyone has contracted the disease. The victims either die or get well. Should 100% mortality result, the disease also dies out. More normally, some portion survive but the survivors are immune and the organism cannot be sustained.

In order for an epidemic disease to be perpetuated, the population must be large enough so that there are continually susceptibles in the population. Susceptibles can be born in or migrate into the groups (cf. Black 1966, 1975; Dunn 1968.)

The ethnomedical system

Aguaruna theories of disease causation fit the classic naturalistic/personalistic dichotomy proposed by Foster (1976). Naturalistic illnesses, such as intestinal parasites, colds, wounds and infections have treatments based on an extensive, primarily plant derived ethnopharmacopeia. Personalistic illness is thought to be caused by witchcraft, normally perpetrated by another human being. A shaman can cause witchcraft illness by sending magical darts, *tsentsak*, or *juak*, an iridescent phlegm-like substance, into the body of the victim. A particularly virulent form of bewitchment can be effected by employing the assistance of one's spirit helper, *pasuk*.

Although some people, usually older women, may have special expertise in the use of plant medicinals for naturalistic illness, they are not considered to be healers. The true healer, manipulator of the natural and supernatural world, is the *iwishin* or shaman.

Aguaruna shamanic healing is typical of lowland South America. To cure a patient, the shaman ingests a hallucinogenic concoction, typically *Banisteriopsis*, *Psychotria*, or *Nicotiana*, that produces a trance state. He

then examines the patient. The *iwishin* looks into the body of the patient during the examination. If a substance or object has been intruded into the patient, it is visible as luminescent matter lodged within the body or as a *pasuk* spirit helper outside, but near, the patient's head. Having identified the nature of the bewitching object, the shaman calls on his own store of power objects to help remove the offending substance. The shaman must possess a power identical to the one intruded into the patient (i.e. feather *tsentsak*, stone *tsentsak*, etc.) As the shaman chants and sings, his power object calls to the foreign power object to come forth. As the bewitching object draws near to the surface of the patient's body, the shaman sucks it out and it flies to his own matching power object held in his mouth or throat. The shaman then spits out or retches out the offending substance, bids it return to its owner and the patient is healed.

Bewitchment by a *pasuk* is more complex. When, after achieving a trance state, the shaman visualizes a *pasuk* hovering about the patient's head, he must call on his own spirit helper to aid in removing the offender. There ensues a sort of metaphysical jousting match in which the curing *pasuk* attempts to confuse and befuddle the bewitching *pasuk* so that he drops his guard momentarily and the curing shaman consort can overpower and exorcise the bewitching shaman's accomplice.

Changes in ethnomedical theory or myth system

Although *pasuk* exist and go about their daily activities in a shared environment with humans, they are invisible to ordinary people. Only a shaman can see *pasuk* and the shaman can only visualize *pasuk* while in a trance state. Unlike other forms of witchcraft, in which the disease dies with the patient, bewitchment by *pasuk* is infectious. When the primary victim dies, *pasuk* moves on to another victim, and another, and another. With each subsequent death, the power of the bewitching *pasuk* is enhanced. If the *pasuk* is not diagnosed and exorcised early, an uncontrollable epidemic ensues. Whatever *pasuk's* traditional role might have been, at this point it has expanded to account for epidemics.

The occurrence of epidemics poses a threat to the Aguaruna ethnomedical system (3). The overwhelming event of an epidemic threatens both the healer and the theory behind his practice. Expansion of *pasuk's* role represents an adaptive response by the ethnomedical system. The new explanatory theory allows the system to incorporate a new phenomena. It provides the basis for the maintenance of equilibrium between power and risk. By making the accumulation of excess power a natural attribute of *pasuk*, it relieves the shaman healer of responsability (= reduced power). By making the attribution of *pasuk's* power cumulative, it shifts blame from the curer to the clients (= reduced risk) who failed to call the healer in a timely fashion. Therefore,

despite a disastrous outcome, both the role of the healer and the theoretical foundation of the ethnomedical system are validated.

These modifications in the native explanatory system are now stable and widely accepted among the Aguaruna. They represent a successful adaptation of traditional beliefs to changes in disease patterns introduced as a result of the Conquest.

The following two narratives represent more recent attempts to adapt the ethnomedical system to changes wrought by contact. The first is an account recorded from an old man who had been a respected healer (a *tajimat iwishin*) for many years. He also occasionally referred patients to me or to another nurse for treatment. I worked with him for several field seasons on the nature of traditional medicine. During the course of one interview, I asked him how he knew which illnesses he should treat and which ones he should refer for treatment by western medicine. He explained as follows.

«In the old days, the Aguaruna only suffered illnesses caused by *tunchi* (witchcraft). All sickness of this kind could be treated by an *iwishin*. In those days, an *iwishin* could cure everything. When the Kistian (the term the Aguaruna use for foreigners) came, they brought many diseases. Large numbers of Aguaruna died from diseases such as measles. Now, when I examine a patient, if the cause is a Kistian disease, I can't see anything, just blackness. If the patient has dysentery, for example, I just see a boiling dirty blackness. I can't cure that. Kistian medicines can cure that because they are Kistian diseases. I can only cure *tunchi* diseases».

The adaptive strategy for this explanatory narrative is verification of both systems. The narrator has been a successful practitioner all of his life. He knows that he can heal. At the same time, it is also clear that modern drugs are effective for some conditions. Logically, therefore, both systems must work and this traditional healer posits a theory that explains why. It also has the positive effect of not reducing his own credibility or threatening his traditional role.

His theory is also verified in several ways. Shamanic healers do heal. We are beginning to discover some of the autoimmune mechanisms such as production of endorphins and interferon that enable us to reconcile this fact with so-called scientific truth.

Antibiotics can effect a dramatic cure for some conditions, when they are properly used. In this rain forest context, however, random medicines are frequently purchased and sold by persons with no knowledge of their effects and proper use. Thus, modern medicines verifiably effect a limited number of cures. Eigthy percent or more of patients get well no matter whom they consult or what treatment is received. In other words, the efficacy of both systems would be verified by experience irrespective of their actual causal impact on morbidity and mortality.

Michael Brown (1986) recounts a different version of the introduction of European diseases and cosmopolitan medicine from the Aguaruna of Alto Mayo region of northcentral Peru. Long ago, the Aguaruna had no contagious diseases. However, after some Christians killed the son of a great *Iwishin* the shaman sorcerer decided to take revenge. This he accomplished by drinking tobacco water and entering a trance state. While in trance he "dreamed up" all of the deadly diseases and sent them to the Kistian. At first many Kistians died but a few escaped. Those who survived put the diseases into bottles and developed cures for them. That is why Kistian medicines are effective for those diseases.

Like the first example, this narrative demonstrates an adaptive strategy that validates the traditional Aguaruna medical system, while acknowledging the efficacy of cosmopolitan medicine. It divides etiologic treatment domains between the two systems so that neither need undermine or displace the other.

An alternative type of ethnomedical modification was employed by a young man who had served in the Peruvian army for a time. On his return home, he reported that while in the army he had met a Cocama Indian shaman. Locally, the *kukam iwishin* is the most renowned shaman. The young Aguaruna underwent initiation into the *kukam* shamanic tradition. He also stated that he sought out a "Peruvian" shaman as a mentor and was initiated into that tradition. These shamanic powers were, in fact, acquired as an addition to the powers he had received during his initiation into a more traditional Aguaruna shamanic role.

The narrator was thus a thrice reborn shamanic healer (cf. Eliade 1964: 33-36 on shamanic initiation as death and re-birth). It will be recalled that the healer must possess the same kind of bewitching object that has been intruded into the patient. Each shaman-mentor passes on to the novice those and only those powers and power objects that he himself possesses. From the Aguaruna and Cocama he received the traditional procedures and power objects representing natural objects and magical substances peculiar to each. From the Peruvian shaman he received power objects symbolic of the dominant society: motor *tsentsak*, airplane *tsentsak*, bicycle *tsentsak*, etc.

This shaman's strategy, then, was to maintain *tunchi* as the single causal explanation of sickness, to incorporate foreign diseases into this causation theory, and to expand the shamanic storehouse of power objects to include power objects of Peruvian national culture. He aspired to consolidate his role by controlling the power objects of a traditional Aguaruna *iwishin* as well as the renowned powers of the *kukam iwishin*, and by incorporating the power symbols of development and the dominant culture.

As an individual strategy it places the Aguaruna medical system on an equal footing with western medicine but ignores or fails to validate

the use of modern drug interventions. The narrator himself accrues great personal power and also, therefore, great risk. By incorporating the powers of three shamanic traditions this young man was vulnerable to accusations of malevolence and retaliation for attributed wrong-doing. Such accusations of witchcraft are a widespread means of social control of persons possessing shamanic powers. When acted upon, the outcome is usually ostracism, exile, or death.

Summary

The modification of the role of *pasuk* to account for introduced epidemic disease represents a successful adaptation of the traditional medical system and its underlying mythological structure to health consequences of epidemic disease. The adaptive strategies described here attempt to maintain the integrity of the traditional social system while adapting to and integrating aspects of the dominant national (and international) system. They paint an optimistic picture which prevents the break down of the traditional system in the face of the forces of change. They envision incorporation of desirable parts of the culture of contact while maintaining the traditional system.

Whether the narratives of recent origin become widely incorporated into the myth system is dependent on several things; recruitment of new shamanic healers to carry on traditional healing (the shamans I know complained of lack of apprentices), the availability and rationality of use of cosmopolitan medicine, and, eventually, at least on the response of western medicine to these alternative healers.

Future impact

To date the impact of cosmopolitan medicine on the Aguaruna has been minimal and dependent on the sporadic access that Aguaruna have to modern medicines. Introduction of an organized system of medical care would predictably have greater impact. In recent years health planners have demonstrated increasing sensitivity by defining and addressing the perceived needs of the community and by employing community members as health auxiliaries and culture brokers. The primary strategy, however, has continued to be the transmission of cosmopolitan medicine based on western medical concepts with no modification for non-western consumers. Little concern is shown for an understanding of traditional medical systems.

Much of the pharmacopeia of cosmopolitan medicine was originally plant derived but the efficacy of folk herbals is seldom considered. Scientists are gaining increasing understanding of the function and importance of the autoimmune system yet continue to discourage or discount ethnic healing rituals. When local healers are incorporated into the health care system it is usually to utilize their moral authority as an umbrella for biomedicine.

Medical systems are integral parts of culture. They reflect the moral philosophy as well as the epidemiological experience of a group. When cosmopolitan medicine discredits the ethnomedical system of a small scale society, it undermines both the system and its theoretical foundation (cultural, mythical) and, therefore, the stability and integrity of a cultural group. It is to be hoped that health planners and health practitioners will take a more enlightened approach to traditional medical systems and native healers. There is no clear need to incorporate traditional healing into bio-medical programs. Nor is there a necessary need to train native healers in cosmopolitan medicine. The lesson to be learned from the Aguaruna healers cited here is that the different medical systems might answer different needs and that by adopting a collegial attitude, healers from biomolecular and folk traditions might discover ways to meet all of a people's health needs.

Notes

1. Adaptive value as used here is equivalent to *functional* according to Kluckhohn's (1967) definition, «the operations by which the "function" of a culture pattern is defined consist in showing how the fullfilment of the pattern promotes the solidarity or survival of the society and the maintenance of their equilibrium on the part of individuals».

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3. Adrian Cowell (1963) records the tragic response of a community to an epidemic in which the healing shaman is slain. When the shaman's powers were inadequate to cope with the disaster, he was rendered ineffective as a mediator with death. The counterbalance of power and risk was disrupted, risk became excessive and resulted in his execution.

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