

Indigenous Societies

W.W. Dressler

The University of Alabama, Tuscaloosa, AL, USA

OUTLINE

Introduction	429	Stress and Migration	433
Stress in Unacculturated Indigenous Societies	429	Conclusion	434
Stress and Acculturation in Indigenous Societies	431	References	434

Abstract

Indigenous societies exist outside the major influences of the global economic system, or within a larger society but separate in a social and cultural sense. In any society there is variation in the degree to which individuals are able to achieve the ideals of that society, and difficulty in doing so can be stressful. This can be manifest in the form of culture-bound syndromes, or local idioms of distress. Major sources of stress involve the processes of acculturation and modernization, or the degree to which traditional societies' values, beliefs, and, especially, economic systems are impacted. At the same time, there are traditional forms of stress resistance that are configured specifically within traditional systems of social relationships that serve as buffers against the stressful effects of modernization and migration. The study of stress within indigenous and changing societies can help to illuminate fundamental processes in health.

INTRODUCTION

An indigenous or traditional society is characterized as native to a specific region, with a distinctive language and way of life. Also, the way of life of the people is peripheral to global capitalist market systems. This does not mean that such a society is unaffected by global market systems; in fact, one major source of stress in indigenous societies is the impact of economic change emanating from those larger systems. Nor does this mean that an indigenous society cannot be embedded within a modern, industrial society (e.g., Native Americans). Rather, in an indigenous society, culture, and related systems of social organization are structured more in terms of local context and local systems of meaning, and less in

terms of the middle-class values of industrial society. Understanding stress and its effects in indigenous societies requires an examination both of social arrangements that generate stresses within the indigenous social structure, and the way in which traditional culture and social structure interact with outside influences to generate stresses.

STRESS IN UNACCULTURATED INDIGENOUS SOCIETIES

Anthropologists conventionally describe the relative degree of external influence on a society or community along a continuum of "acculturation." A society that is relatively unacculturated or traditional has been minimally influenced by processes of modernization. Usually this means that households tend to practice a mix of economic pursuits for subsistence (i.e., raising food directly for consumption within the household) and for exchange in local markets. With respect to material lifestyles, although there is some access to imported consumer goods, these often are primarily related to subsistence activities (e.g., agricultural implements, outboard motors). Most goods consumed by a household are produced locally. What wage-labor exists is usually within the community, and there is little formal education. Social relationships tend to be dominated by kinship. Systems of kinship can range from large groups formed around descent from a common ancestor (or unilineal descent

groups) to somewhat more loosely structured kindreds that are like large ego-centered social networks. Finally, belief systems reflect local meanings and understandings, even when there have been modernizing influences (e.g., missionaries).

KEY POINTS

- Introduction
 - Societies that exist outside the major influence of global economic systems
 - Emphasis on mixed subsistence-wage labor economies; social relationships defined by extended kinship systems; belief systems relatively unaffected by major world ideologies
 - Major sources of morbidity and mortality include infectious and parasitic disease and trauma
- Stress in unacculturated indigenous societies
 - Social stresses generated by variation in cultural consonance, or the degree to which individuals are able to achieve cultural ideals
 - Social stress often manifests in the form of culture-bound syndromes, or local idioms of distress
- Stress and acculturation in indigenous societies
 - Acculturation refers to the impact of one societies' beliefs and values on those of another society
 - Modernization or economic development of an indigenous society includes a shift in subsistence and economic pursuits as well as changes in beliefs and values
 - Increasing modernization and acculturation in a community is associated with an increase in rates of obesity, hypertension, cardiovascular disease, and psychiatric disorders
 - Stressors—especially status incongruence—are generated as a part of the modernization process, as individuals aspire to new lifestyles but in the context of slowly expanding economic resources
 - These modernization stressors tend to be consistent across different societies
 - Social factors buffering the impact of stressors tend to be more culturally specific, embedded in traditional social relationships
- Stress and migration
 - Migration from traditional societies to urban areas is a consistent concomitant of the modernization process
 - Migrants face a world in which their traditional cultural models do not prepare them for adapting to the new world they face

- This incongruence in cultural models can lead to stress and poor health outcomes
- Conclusion
 - The study of stress in indigenous societies, both in their traditional settings and under conditions of culture change, provides an important perspective on the stress process.

Patterns of morbidity and mortality within traditional societies provide one clue to patterns of stress in those societies. Generally speaking, rates of high blood pressure, coronary artery disease, stroke, and cancer tend to be very low.¹ In traditional societies, patterns of morbidity and mortality tend to be dominated by infectious and parasitic disease, especially in childhood, and by trauma in adulthood.² Although any generalizations must be tempered by reference to local ecological conditions, in many traditional societies, life expectancy beyond 5 years of age is comparable to life expectancy in industrial societies, and in the aged in these societies there is little evidence of the kind of pathologies (e.g., atherosclerosis) associated with aging in industrial societies.

What has been most illuminating in the study of stress in unacculturated societies is the study of “culture-bound syndromes.” Culture-bound syndromes are local idioms of distress.³ They can be thought of as culturally appropriate ways of experiencing and expressing distress arising from stressful social relationships. Some attempts have been made to equate the culture-bound syndromes with Western psychiatric diagnoses, but recent evidence indicates that there is not a direct correspondence between culture-bound syndromes and biomedical psychiatric diagnoses; it is probably more useful to think of culture-bound syndromes and Western psychiatric diagnoses as comorbid.⁴

A classic example of a culture-bound syndrome is *susto* in Latino societies of Central and South America. The individual suffering from *susto* experiences a loss of energy, difficulty in maintaining customary activities, frequent spells of crying, and diffuse somatic symptoms, such as loss of appetite and sleep disturbance. As the name in Spanish implies, *susto* is attributed to a sudden fright (e.g., seeing a snake) at which time the soul of the individual leaves the body and wanders freely.⁵

Research has shown that the distribution of *susto* is socially patterned. The prevalence is higher in females, tends to increase with age, and tends to be higher in relatively poorer communities. Furthermore, the greatest risk of *susto* has been found among persons experiencing difficulty in enacting common social role expectations. This usually arises from a lack of specific kinds of social resources (e.g., not having a large kinship network) that can be called on in carrying out expected role obligations (such as contributions to community work groups).

Similar findings have been obtained in research on other culture-bound syndromes.^{6,7} Culture-bound syndromes occur when individuals are low in cultural consonance; that is, they are unable to approximate in their own behaviors the prototypes for behaviors that are encoded in widely shared cultural models.⁸ The social production of stress as it manifests in a culture-bound syndrome has profound longer-term effects; persons experiencing *susto*, for example, have an increased risk of early mortality.⁵

The diagnosis of a culture-bound syndrome makes the experience of social stress meaningful and intelligible both to the person suffering the stress and to his or her social network. Furthermore, in many societies, there are cultural practices, including healing rituals and participation in religious organizations that deal directly with the syndrome and the underlying difficulties in social relationships. The aim is to mend the tear in the fabric of social relationships, and hence end the individual's suffering.

The existence of these beliefs and practices that are helpful in ameliorating cultural stresses may in part account for patterns of morbidity and mortality in indigenous societies. As noted above, the diseases conventionally associated with stress in industrial societies are relatively less important in indigenous societies. Also, in most cases, an increase of blood pressure with age is not observed in indigenous societies. Other patterns of disease distribution that are taken for granted in industrial societies are not observed in traditional societies. One of the more striking of these is the association of blood pressure with African-descent ethnicity. While it is assumed that persons of African-descent have higher blood pressures, in fact this is true primarily for African-descent persons in the Western Hemisphere, and more specifically in societies in which Africans had formerly been enslaved. So, for example, when communities of African-descent are compared, communities in Africa have the lowest average blood pressures; communities in the West Indies have intermediate average blood pressures; and, African American and African Brazilian communities have the highest average blood pressures.⁹

These patterns suggest two things. First, there may be a relatively higher level of social integration in indigenous societies, along with practices that help to moderate the impact of social stressors that account for the lower prevalence of conditions and diseases associated with stress in industrial societies. Second, the process of social change leading to the modern industrial state may itself generate profound social stresses that contribute to the distinctive pattern of morbidity and mortality in those societies.

At the same time, it is important not to romanticize life in indigenous societies, in the sense of overemphasizing social integration and cohesion, because stresses will be generated within any system of social relationships. What

is important to specify across different cultural contexts is the process by which social stresses are generated, and the ability of indigenous support systems to deal with those stresses.

Promising results in this regard are emerging from research on hormones and neurotransmitters associated with the stress process. Newer techniques of data collection under difficult field conditions, along with techniques for the analysis of those data, are beginning to show how variation in social behavior within traditional societies is associated with inter- and intraindividual variation in stress hormones, which in turn is associated with acute illness. For example, research in a peasant village in the West Indies has shown that men who are perceived by their peers to emulate the ideals of manhood in this community have lower circulating levels of cortisol. Similarly, children growing up in families that are closer to the cultural ideal of the family have lower circulating cortisol levels and experience fewer acute illnesses.^{10,11} This research, coupled with research on local idioms of distress, suggests that stresses in unacculturated societies are deeply embedded in the system of social relationships that organizes everyday life.

STRESS AND ACCULTURATION IN INDIGENOUS SOCIETIES

Societies that are undergoing acculturation are those that are being influenced by other social and cultural systems. In the study of stress and disease, the effect of modern industrial societies on local sociocultural systems has been of particular interest. There is considerable imbalance in this type of acculturation, because of the unequal power and influence that modern industrial states exert on traditional societies. The terms "modernization" or "development" have been used to describe this kind of influence.

Modernization in traditional societies was initiated by colonial expansion and has been particularly prominent since the Second World War and related processes of globalization. This influence has not been inadvertent. The aim has been to take advantage of both physical and social resources in developing societies.

These changes have had large effects on local social systems, including: a transition from subsistence occupations to wage-labor occupations; the replacement of indigenous languages by European languages; increased urbanization; increased emphasis on formal education; decreased emphasis on traditional social relationships, especially kinship; and, substantial changes in indigenous belief systems. Everyday life can change at a rapid pace in modernizing contexts, the result being a stressful lack of consonance between traditional culture and the demands of modern life.

Specific and general aspects of this modernization process have been found to be associated with increasing rates of chronic diseases. Urbanization has been found to be associated with increasing rates of hypertension, independent of changes in diet and physical activity. Some investigators have used summary measures of acculturation both for individuals and for communities. When communities are ranked along a continuum of traditional, intermediate, and modern (depending on aggregate characteristics of the population by the variables noted above), rates of hypertension, obesity, diabetes, and coronary artery disease consistently increase in communities with higher levels of acculturation or modernization. Also, daily circulating levels of hormones such as cortisol appear to increase in association with acculturative stress.^{1,12}

The results have been somewhat less consistent using measures of acculturation operationalized at the level of the individual. That is, an individual's adoption of new economic pursuits, shifting patterns of social relationships, or changing beliefs is not as consistently related to health outcomes. The pattern can still be observed in many studies, but the strength and the replicability of the associations are not as great. This has led some researchers to speculate that the linear model of stress and acculturation is not specified well-enough to describe the process at the individual level.¹

Because the general model of stress and acculturation has not worked very well at the level of the individual, researchers have adapted the stress model as it has been developed for European and American populations and applied it to communities experiencing change and development. A major challenge in this research has been to identify factors that generalize across different cultural contexts and to distinguish those from factors that are culturally specific. There is emerging evidence to suggest that at least one set of social stressors generalizes across modernizing societies, primarily because these stressors are generated by the modernization process itself. In most societies undergoing modernization, there is an increased availability of Western consumer goods. Frequently the ownership of these goods becomes highly valued as symbols of status or prestige, often supplanting traditional indicators of higher status. This by itself contributes to the climate of change in a modernizing community. In addition, however, aspirations for the lifestyles of the Western middle class can quickly outstrip the ability of a developing economy to provide the kinds of jobs and salaries necessary to maintain such a lifestyle. Therefore, a kind of "status incongruence" can occur, in which the desire to attain and maintain a Western middle-class lifestyle exceeds an individual's economic resources for such a lifestyle. This kind of status incongruence has been found to be related to psychiatric symptoms, high blood pressure, elevated serum lipids, the risk of diabetes, and

immunological status in developing societies in Latin America, the Caribbean, and Polynesia.¹³⁻¹⁵

Resources for coping with stressors have been found to be more culturally variable. Social support systems are a good case in point. Social support can be defined as the emotional and practical assistance an individual believes is available to him or her during times of felt need; the social network in which this assistance is available is the social support system. In research in Europe and North America, generally speaking, emphasis has been placed on the nature of the assistance or social support transactions, rather than on who might provide that assistance. There is a growing body of cross-cultural research to indicate that, in many societies, who provides the assistance is critical in determining the relationship between social support and health. This is probably a reflection of a continuing importance of kinship in defining who is and who is not an appropriate individual with whom to enter into a social relationship.¹⁶

For example, in Latin American societies, people have traditionally lived in large extended families organized around a father and his married sons (known as a patrilineal extended family). In addition to these extended family relationships, there is a social practice known as *compadrazgo*, through which individuals, especially men, establish formal, kinship-like relationships with unrelated persons (known as fictive kinship). The term *compadrazgo* literally means "coparenthood," and this carries the expectation of mutual support. These ties of fictive kinship are used to establish economically and politically important alliances. Research has shown that men who perceive greater amounts of support from both their extended and their fictive kin have lower blood pressures. Women are expected to restrict themselves to the household and domestic duties. Not surprisingly, with respect to health status, women benefit primarily from support available within the household. These studies show that the definition and effects of social supports are closely related to cultural and social structural factors, and can only be understood within that context.¹⁷

Other forms of stress resistance show similar differences cross-culturally, although the evidence is not quite as consistent as with social support. For example, in European and North American studies, a direct-action coping style has been found to be helpful in moderating the effects of stressful events or circumstances. In this style of coping, attempting to directly confront and alter stressful circumstances contributes to better health status. In some research in traditional societies, this same relationship has been observed. In others, the opposite effect has been observed (i.e., a direct-action coping style actually exacerbates distress and poor outcomes). In the specific case of this coping style, this probably has to do with the actual resources available to individuals and families in coping with stressors. Where social and economic

resources are meager at best, the belief that one can truly change the circumstances that are often thrust upon oneself may, in the long run, be deleterious.¹⁸

A major source of stress in societies undergoing modernization is the increase in socioeconomic inequity that accompanies modernization. Generally speaking, the distribution of wealth becomes more unequal, resulting in marked social stratification where previously such stratification was, if not absent, at least muted. Recent studies point to the effects of such stratification on cultural consonance as a potent source of stress. The capacity of an individual to achieve higher cultural consonance is severely compromised by lower socioeconomic status. Lower cultural consonance has been found to be associated with higher blood pressure and psychological distress, and to mediate the effects of socioeconomic status in contexts of modernization. The inability to act on these widely shared cultural models is a potent source of stress in developing societies.^{19,20}

STRESS AND MIGRATION

The other way in which social and cultural change can influence indigenous communities is through migration. The past century has seen remarkable movements of people from traditional societies to North America and Western Europe, along with internal migration within developing societies that takes migrants into cosmopolitan urban centers in their own societies. Rarely can migration be considered an individual matter. Rather, it is much more common for entire communities of migrants to become established in their host country. This usually occurs because migration follows patterns established through social networks, especially kinship networks. Individuals and households take advantage of kin-based social support systems established in host countries in order to establish themselves there.

Research suggests that a similar pattern of stress and response develops in cases of migration as that observed in developing societies. That is, migrants come to the new setting with aspirations for a new life, aspirations that are reinforced in host countries through the depiction of middle-class lifestyles in advertising and other media forms. At the same time, migrants typically occupy the lowest levels of socioeconomic status in their host countries. Therefore, the ability of the migrant to amass the economic resources necessary to achieve a middle-class lifestyle is severely compromised. This status incongruence again has been found to be associated with chronic disease risk factors such as blood pressure and glucose levels.²¹

Patterns of social support that can help an individual to cope with this kind of social stressor will often again

be found in the kin support system. There are, however, several additional complications. First, often kin support systems will be fragmented. Only some people will migrate, not entire support systems. This can mean that some households and individuals are socially isolated, lacking even the most basic social supports. This can also mean that a large burden can be placed on a support system that is fragmented, and that the resulting demands for support are simply too much for the system to bear. Second, the migrant, especially to North America, is entering a highly competitive and individualistic society. The kinds of mutual rights and obligations entailed by kinship have ceased to be recognized as strongly, for example, in the United States compared to traditional societies in Latin America or Southeast Asia. Therefore, in some specific situations, the kin support system can come to be a source of stress and tension, as opposed to a resource for resisting stress.

The complications entailed here are illustrated by migrants from Samoa to northern California in the United States. Traditionally organized into large extended kin groups represented by chiefs, Samoans have transplanted their social organization to some US urban centers. Traditionally, the chief (or *matai*) controls economic decision-making for the entire extended family. In the American urban setting, however, the economic demands of daily life for an individual household can conflict with the decisions made for the extended family, causing this traditional form of social organization to become a source of stress. At the same time, within the larger extended family, core systems of kin-based social support have emerged, especially involving networks of adult siblings. Individuals and households with a strong support system of this kind have better health status in spite of social stressors such as status incongruence. This specific case illustrates the importance of understanding the adaptation of migrants in a host society in relation to their traditional cultural context, as well as the demands of the new social setting.²²

Some research on migrants from the developing world has shown the long-term effects of major life events experienced by families in the society of origin. This has been observed in immigrants from Latin America and Southeast Asia who have been exposed to protracted civil war and related conflicts. For example, it was found that persons who had had relatives kidnapped or murdered by nonmilitary death squads in Guatemala had continuing high levels of anxiety and depression years after the event. Similarly, anxiety and depression levels in migrants from Southeast Asia to the United States were associated with time spent in refugee camps, independently from other stressors and demographic control variables. These major crises associated with large-scale political events and circumstances can have effects that continue well after the initial, acute stages.²³

CONCLUSION

The study of stress and indigenous societies has helped to illuminate various aspects of the stress process. Perhaps the most important has been the clear demonstration of the link between the stress process and the social and cultural context in which individuals and families live. When stressors and resistance resources are examined only within a single cultural context, it can appear as if individual differences in exposure to stressors or in access to resistance resources are the only key to understanding the process. What is lost is the recognition that what counts as a stressor or a resistance resource is itself a function of the cultural context and related social influences. Furthermore, the relationship between stressors, resources, and outcomes can also be modified by social and cultural context. Comparing the stress process in different cultural contexts has been integral to revealing this aspect of the process.²⁴

Future research must be explicitly comparative in scope in order to expand on findings produced thus far. For example, research in developing societies suggests that the most important stressors in those societies are actually a function of the development process itself, such as status incongruence. Put differently, this aspect of the stress process is comparable across different settings. On the other hand, the most important resources for resisting stress appear to be specific to the local setting, as in the way in which systems of social support are structured by the existing systems of social organization. Continuing to refine these studies, including better measurements of the physiologic dimensions of stress, will increase our understanding of human adaptation.

References

1. Dressler W. Modernization, stress, and blood pressure: new directions in research. *Hum Biol.* 1999;71:583–605.
2. Armelagos GJ, Brown PJ, Turner B. Evolutionary, historical and political economic perspectives on health and disease. *Soc Sci Med.* 2005;61:755–765.
3. Nichter M. Idioms of distress revisited. *Cult Med Psychiatry.* 2010;34:401–416.
4. Guarnaccia P, Canino G, Rubiostepic M, Bravo M. The prevalence of ataques-de-nervios in the Puerto Rico disaster study. *J Nerv Ment Dis.* 1993;181:157–165.
5. Rubel AJ, O'Neill CW, Collado-Ardon R. *Susto: A Folk Illness.* Berkeley, CA: University of California Press; 1991.
6. Brooks BB. Chucaque and social stress among Peruvian highlanders. *Med Anthropol Q.* 2014;28:419–439.
7. Oths KS. Debilidad: a biocultural assessment of an embodied Andean illness. *Med Anthropol Q.* 1999;13:286–315.
8. Dressler WW. Cultural consonance. In: Bhugra D, Bhui K, eds. *Textbook of Cultural Psychiatry.* Cambridge: Cambridge University Press; 2007:179–190.
9. Madrigal L, Blell M, Ruiz E, Otarola-Duran F. The slavery hypothesis: an evaluation of a genetic-deterministic explanation for hypertension prevalence rate inequalities. In: Panter-Brick C, Fuentes A, eds. *Health, Risk, and Adversity.* New York, NY: Berghahn Books; 2009:236–265.
10. Decker S, Flinn M, England BG, Worthman CM. Cultural congruity and the cortisol stress response among Dominican men. In: Wilce Jr JM, ed. *Social and Cultural Lives of Immune Systems.* London/New York: Routledge; 2003:147–169.
11. Flinn MV, England BG. Social economics of childhood glucocorticoid stress response and health. *Am J Phys Anthropol.* 1997;102:33–53.
12. Hanna JM, James GD, Martz JM. Hormonal measures of stress. In: Baker PT, Hanna JM, Baker TS, eds. *The Changing Samoans: Behavior and Health in Transition.* New York, NY: Oxford University Press; 1986:203–221.
13. Dressler W, Mata A, Chavez A, Viteri F. Arterial blood pressure and individual modernization in a Mexican community. *Soc Sci Med.* 1987;24:679–687.
14. Dressler WW. Psychosomatic symptoms, stress and modernization: a model. *Cult Med Psychiatry.* 1985;9:257–286.
15. McDade T. Status incongruity in Samoan youth: a biocultural analysis of culture change, stress, and immune function. *Med Anthropol Q.* 2002;16:123–150.
16. Dressler WW. Cross-cultural differences and social influences in social support and cardiovascular disease. In: Shumaker SA, Czajkowski S, eds. *Social Support and Cardiovascular Disease.* New York, NY: Plenum Publishing; 1994:167–192.
17. Dressler W, Mata A, Chavez A, Viteri F, Gallagher P. Social support and arterial pressure in a central Mexican community. *Psychosom Med.* 1986;48:338–350.
18. Au EWM, Chiu C, Zhang Z-X, et al. Negotiable fate: social ecological foundation and psychological functions. *J Cross-Cult Psychol.* 2012;43:931–942.
19. Godoy R, Reyes-Garcia V, Gravlee C, et al. Moving beyond a snapshot to understand changes in the well-being of native Amazonians. *Curr Anthropol.* 2009;50:560–570.
20. Dressler WW, Balieiro MC, Ribeiro RP, dos Santos JE. Culture as a mediator of health disparities: cultural consonance, social class, and health. *Ann Anthropol Pract.* 2015;38:214–231.
21. Zimmerman C, Kiss L, Hossain M. Migration and health: a framework for 21st century policy-making. *PLoS Med.* 2011;8:e1001034.
22. Janes C. *Migration, Social Change, and Health: A Samoan Community in Urban California.* 1st ed. Stanford, CA: Stanford University Press; 1990.
23. Sabian M, Cardozo BL, Nackerud L, Kaiser R, Varese L. Factors associated with poor mental health among Guatemalan refugees living in Mexico 20 years after civil conflict. *JAMA.* 2003;290:635–642.
24. Dressler W. Modeling biocultural interactions: examples from studies of stress and cardiovascular disease. *Yearb Phys Anthropol.* 1995;38:27–56.