The relationship between schizophrenia and social change is examined through a review of recent medical research in genetics, biology, and epidemiology. Those mental traits that today in our society characterize the schizophrenic, in a previous era or in another society may have provided a mechanism for cultural change during the periods of stress when traditional methods of coping with the environment proved unadaptive. In many cases, prophets, shamens, and seers experience the same estrangement and disorganization of the self as does the schizophrenic in our society. This perspective views schizophrenia in our society as an evolutionary anachronism which in a previous society may have been organized early in youth and shaped into a socially useful form. Cultural change has in recent human history become a dominating ethos and is accordingly valued for its own sake. The particular psychological functions of these sensitive individuals are therefore no longer used to transcend traditional points of view. (Author/DE)
REVITALIZATION AND SOCIAL CHANGE:
CONTRIBUTIONS FROM PSYCHIATRIC EPIDEMIOLOGY

by

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ABSTRACT

Recent medical research in the genetics, biology, and epidemiology of schizophrenia is reviewed. The paper proposes that this mental condition is found worldwide because it is a basic biological condition of Homo sapiens and until recently provided certain evolutionary advantages. The social manifestation of this phenomenon are to be seen in the process of revitalization as described by Wallace, i.e. schizophrenia is a mechanism for culture change during periods of stress when traditional methods of coping with a changing environment have proven unadaptive.

In his classic work on culture and personality (1970) Wallace has detailed a process of micro-temporal cultural change. Such processes have been documented in previous studies of innovation, acculturation, nativistic movements, and revitalization movements. Revitalization movements are "deliberate, organized attempts by some members of a society to construct a more satisfying culture by rapid acceptance of a pattern of multiple innovations" (Wallace, 188: 1970). This paper essentially represents an elaboration of Wallace's basic social-psychological formulations of revitalization. We will examine several aspects of a mental condition termed schizophrenia from this point of view.

Culture change has been a characteristic of all human societies. However, the degree and rate of change has been quite variable. For the most part, human groups seem to be resistant to rapid changes preferring instead established modes of behavior. Societies through history have tended generally to be traditional and conservative with an orientation to the past, turning first to the tried and tested methods in attempting to solve even novel problems. Rapid shifts in social and biological milieu, however, occur frequently enough to necessitate a mechanism by which individuals and societies can rapidly restructure their ways of living in order to meet new environmental challenges.

Culture has obviously greatly augmented man's basic biogenetic adaptations to his environment. In most circumstances, these cultural adaptations maintain human physiological homeostasis under conditions of environmental perturbation. However with sudden climactic change, changes in flora or fauna, or disease epidemics
cultural responses may not be adequate in maintaining human biological requirements. Disease, famine, subsequent loss of pride and values, and social disorganization of corporate institutions and of family life may occur. Under conditions of disorganization, the system from the standpoint of at least some of its members is unable to make possible the reliable satisfaction of certain values that are held to be essential to continued well-being and self-respect. Individuals under such circumstances tend, to various degrees, to become internally disorganized and manifest symptoms of their distress in anxiety, depression, shame, guilt, apathy. Some individuals because of constitutional proclivity are prone to develop behaviors and modes of thinking characteristic of schizophrenia.

This process has been best exemplified in Wallace’s work on the Seneca Indians of New York and the rise of the religion of Handsome Lake. Among the Seneca, the stereotypes of the good hunter, the brave warrior and the forest statesman were the images of success and value, but because of political changes in America during the mid-18th century the Seneca people became confined to tiny isolated reservations which made achievement of their ideals virtually impossible. The hunter could no longer hunt; the warrior could no longer fight; and perhaps more shattering the forest statesman was an object of contempt and ridicule. "White men no longer spoke of the league of the Iroquois with respect; their Western Indian dependents and allies regarded them as cowards for having made peace with the Americans" (Wallace, 1970: 190). The personal disorganization of many Seneca individuals was observed. Fear of witches increased, clans and families squabbled and many turned to drink and neglected their family responsibilities. Handsome Lake was such a person who, in several states of exhaustion and distress, hallucinated angel messengers from the Creator who brought him the "New Way of Handsome Lake." Handsome Lake’s brother, Corn-Planter, announced these visions to his people. The messages contained the prescription to put away such vices as abortion, infertility-magic, and drinking. In addition, a new code of socialization was instituted which emphasized the nuclear family over clan and lineage and sanctioned men’s working in the fields—a woman’s occupation. The psychological aberrances of Handsome Lake apparently provided a mechanism for cultural restruct-
Schizophrenia is a condition of human psychological functioning characterized by hallucinations, with the patient hearing his own thoughts spoken aloud, hearing voices talking to each other, voices that comment on the behavior of the patient, feelings of influence on bodily functions, interference with thoughts, thought stealing, communication of one's own thoughts to others, feelings being influenced from the outside with regard to emotion, drive and volition. During the last 75 years in the Western world, schizophrenia has been considered a disease analogous to other medical diseases such as tuberculosis or coronary artery disease. As other disease, it is felt to be a clinical condition resulting from underlying physiological dysfunctions due to imbalance in some naturally occurring homeostatic cycle. There is substantial evidence that individual proclivity toward reacting to stress in this mode is under genetic control, probably through the interaction of gene pairs at 4 loci (Rosenthal, 1970, Rosenthal and Kety 1968).

In order to more precisely identify the etiology of schizophrenia, epidemiological studies have been undertaken to determine the incidence and prevalence of this condition in various societies and environments. This approach has been found useful and has been commonly employed with other diseases, such as tuberculosis, diabetes, cholera, etc. Most of the literature concerning epidemiological studies of schizophrenia is based on work in which neither interviewing nor classifying procedures were standardized or reproducible. The results of such comparisons must therefore be interpreted with caution. Nevertheless, there have been some interesting studies of various degrees of sophistication.

Goldhammer and Marshall, in their book "Psychosis and Civilization" 1949, compared age specific first admission rates to institutions in Massachusetts for the years 1840-1855 in order to compare these rates with those of today. They concluded that there has been no long-term increase in the last century in the incidence of psychosis (schizophrenia of early and middle life). Arthur, in 1965, examined rates of breakdown in the United States Navy over the past 60 years. He was able to show that the psychosis admission rate had remained remarkably constant in spite of the changing size and composition during the 2 wars and numerous other momentous events. Kramer (1969), Pugh and MacMahon (1962) found that the overall rates for first admission to mental
hospitals in the U.S. was 102.1 per 100,000 population per annum and in the United Kingdom 115.7. Studies in Scandinavia by Odegaard 1968 have in a like manner shown a relative stability of admission rate from 1926 to 1956 in Norway. In a summary of world literature concerning epidemiology of mental illness, Plunkett and Gordon (1960) conclude that the incidence rate of psychotic illness is relatively low in any carefully defined population"...The rates of hospitalization for psychotic illness in persons below 60 have tended to be relatively stationary over the long-term and to be approximately the same for both sexes with the highest rates occurring in young men between 20 and 30 and women between 40 and 50. The rates have consistently shown an excessive rate for the single, widowed, separated, divorced and recent immigrant categories. Recently, the World Health Organization has undertaken a large cross-cultural epidemiological study of the distribution of schizophrenia. The WHO project is entitled "International Pilot Study of Schizophrenia" (IPSS). The IPSS is a 9 nation psychiatric investigation which has as one of its main aims the development of reliable standardized procedures for the assessment of the current mental status and psychiatric and social histories of individuals with schizophrenia. Teams of research workers in Aarhus, Agra, Cali, Ibadan, London, Moscow, Prague, Taipai, and Washington have participated in the study. These teams have developed methods which have good reliability and have "identified similar groups of schizophrenics in each of their communities" (World Health, May, 1973: 32). Preliminary results of this survey are in agreement with the observations of Lin, in his study of mental illness in Formosa (1953), where he showed that the order of magnitude of mental illness there is similar to that in the West and that the major types of mental illness recognizable in Europe or North America were recognizable in Chinese society as well.

In my survey of the incidence of treated mental disorders among Alaskan native people in 1968, an overall incidence of schizophrenia was reported at 80 per 100,000 population. However the incidence of schizophrenia varied slightly between each ethnic group; with Eskimos at 100 per 100,000 (same as overall U.S. population rate); South-eastern Alaskan Indians at 83 per 100,000; and Athabaskans at 15 per 100,000 (Foulks 1972: 28). Thus it is apparent from these studies and others that schizophrenia a rare but ubiquitous phenomena.
Even more pertinent to the argument of this paper are the epidemiological findings of Leighton (1961) and others in the classic Sterling County study. Their basic hypothesis stated that social disintegration generates disintegration of personality. They used 10 indices of disintegration. 1. instability of income as well as low level; 2. cultural confusion—in this case weak, confused, conflicting values—French versus English; 3. secularization, i.e. the absence of religious values; 4. frequency of broken homes; 5. few and weak associations in group, both formal and informal; 6. few and weak leaders; 7. few patterns of recreation and leisure time activity; 8. high frequency of hostile acts and expressions; 9. high frequency of crime and delinquency; 10. weak and fragmented network of communications. In the so-called disintegrated areas of the country as gauged by communities with high scores on the 10 indices of disintegration, the prevalence rate of psychiatric disorders was high for both sexes and significantly higher than other areas rated lower in disintegration. These findings indicate that while mental disorder is found worldwide its prevalence in localized communities is dependent on degree of social cohesion. This agrees with our hypothesis that where social systems are breaking down a particular kind of mental functioning begins to increase in a segment of the population which in some societies has provided a mechanism for social change. In other studies, Holmes and Rahe (1967) have convincingly shown that the stress produced on individuals by breakdown of their social networks produces significantly higher risk for mental disorder. Indices used as parameters of social network breakdown include death of spouse, divorce, marital separation, death of close family member, personal injury or illness, retirement, changes in business or financial state, change to a different line of work, change of responsibilities at work, etc. They concluded that those individuals who, during a given period, had a high life crisis score indicating a large number of life changes in a short period of time would be more likely to develop a major health change than those individuals who had a low life crisis score during the same time, indicating a relatively homeostatic period with little demands on the coping mechanisms of the physiological systems. It has also been observed in many studies of the military that units in which there is high morale based on confidence in leadership, the abilities of one's comrades, and the effectiveness
of one's weapons there are lower incidences of psychological breakdown than in units where there was no confidence in leadership and mistrust between the men (Arthur, 1971: 92). It has also been shown that migration and social mobility with their accompanying disruption of social and family ties increase risk for schizophrenia (Dunham 1965; Hare 1956; Stein 1957). The disenfranchised of lower socioeconomic classes in stratified societies have also shown increased rates of schizophrenia (Hollingshead and Redlich; Kohn 1968; Norris 1956; Odegaard 1956; Murphy 1965; Goldberg and Morrison 1963). Individuals without sanguine familial ties are also at higher risk (Brooke 1967; Odegaard 1946; Norris 1956; Malzberg 1940).

In summary, we have cited studies which indicate that schizophrenia is a mental condition which occurs worldwide. Its occurrence seems to increase under conditions of cultural and social disorganization. Individual susceptibility to this mode of mental functioning is polygenetically determined with high concordance among consanguine relatives. The conditions under which schizophrenia arises and the conditions described by Wallace which lead to prophecy and subsequent revitalization are similar. We suggest that schizophrenia is a mental condition that is found worldwide because it is a basic biological condition of Homo sapiens and until recently provided certain evolutionary advantages. Those mental traits that are included in the diagnosis of schizophrenia in a previous era or in other societies have possibly provided a mechanism for cultural change during periods of stress when traditional mechanisms of coping with the environment have proved unadaptive.

Many previous authors have been struck by several similarities between individuals diagnosed as schizophrenic and individuals who have provided a mechanism for social change as in the case of Handsome Lake. It should be noted that all agents of social change do not possess these psychological characteristics. Clearly, there are many individuals who effect social change through other modes. However, many examples are to be found in the literature which draw similarities between the mental functioning of the prophet and the mental functions of the schizophrenic.

Prophetic powers, whether they are acquired by heredity or by spontaneous possession, usually begin to manifest themselves early in life. Most commonly a future prophet is marked during adolescence by psychological characteristics, experiences, and behavior
which set him or her apart from other people. Adolescents destined to become seers have been described as having a tendency towards introversion or solitude (Bogaras 1907, Handleman 1967); as absentminded, or having "antisocial attitudes" (Linton 1956: 124) with propensity towards strange dreams and visionary experiences, and having "nervous and highly excitable temperments" (Bogaras 1907: 415). All these traits are also characteristic of the pre-schizophrenic individual in our society. When prophecy comes to older people it is often to those who have undergone a traumatic experience such as severe physical or emotional sickness or sudden losses of family or of property (Eliade 1972). Silverman (1967) maintains that the symptoms of schizophrenia are part of the mental functioning of seer and include 'gross non-reality ideation, abnormal perceptual experiences, profound upheavals, and stereotyped mannerisms.' He outlines the experience as a culturally accepted psychological solution of a life crisis on the part of an individual which is precipitated by feelings of fear, psychological impotence, failure, and guilt, and consequently seriously damaged self-esteem. He states that the seer experiences the same estrangement and disorganization of the self as does the schizophrenic in our society. The difference being that by tolerating and even encouraging such behavior the seer's society provides a context for some degree of acceptance and integration. Ackerknecht (1943: 46) feels that "shamanism is not disease but being healed from disease." Eliade (1951: 27) asserts that the shaman "is not only a sick man; he is, above all, a sick man who has been cured, who has succeeded in curing himself." Ackerknecht argues that after passing through an initial 'autopathological' state, the shaman, then goes on to become 'autonormal'; that is, "he is normal in the sense of being well adapted to his society."

Lewis (1971), in his study of shamanism, examines this behavior as it relates to stress, both individual and cultural. He argues that the description of shamans as 'wounded healers', is not based on the fact that all shamans are sick - rather it is a cultural stereotype for someone who has learned to control disorder in his own life and thus for others as well. He makes the important point that the "personal peculiarities and anomalous experiences which society recognizes as expressions of spiritual attention may indeed be exploited with advantage. But they are of no value at all unless they can conspicuously mastered. The ability to contain and control the grounds of disorder
remains the essential requirement.

Mandel (1946) noted that culture change increases both the need for and the frequency of shamanistic manifestations, and suggests that one of the unique abilities of the shaman is to perceive the "necessities of social life" and to subconsciously produce the required manifestations.

Both as a solution to individual stress and as a means of coping with a threatening world, then, the qualities of the seer can be seen not as disease or pathology but as highly adaptive, and as having vital significance for his society. Yet the individuals who assume this role are not, even in their own cultural context, 'normal', or 'typical' solid citizens. The seer is set apart not only by his competence but by his strangeness, his sensitivity, his non-conformity, his isolation. The seer's role as mediator of supernatural powers merely makes his non-conformity acceptable, his strangeness respected. And it is precisely those unique personal qualities which mark the seer as a deviant which is a precondition for his role, and which are utilized in the development of the various talents and techniques necessary for him to succeed.

The trance state is the foundation for the seer's psychic and healing abilities. Through the process of trance, the shaman not only projects his artistic ability through healing process, but begins to display a range of other talents in the form of hallucinations and clairvoyance as well as magical rites. Through the altered state of psychological functioning the seer becomes a charismatic leader. He is able "to influence the psyche of the group, to give it fresh life, to render it creative and restore its healthy, productive equilibrium more effectively." (Lommel 1967: 140). He is able to project a sense of confidence through his exquisite sensitivity to the feelings of others, an observation also frequently made by clinicians about schizophrenics.

Levi-Strauss (1967: 193-95) cites a seer who provides a sick woman with a symbolic language "by means of which unexpressed and otherwise inexpressible psychic states can be immediately expressed...which induces the release of the physiological process, the reorganization in a favorable direction, of the process to which the sick woman is subjected."

The seer having been known himself to have undergone severe mental and physical illness is especially attuned to other's distress. His expertise in easing other
individual emotional suffering is widely cited and although there is still very little knowledge and understanding of these healing skills, there are innumerable accounts of his solutions bringing calm to others.

The similarities between the characteristics of the shaman and those associated with schizophrenia in our culture are striking, as Silverman, and others have noted. Schizophrenics are oversensitized to conflict and stress; shamans are also more sensitized to stress than other people; i.e., more susceptible to dissociation in the form of trance or possession, but they are also more able to utilize this sensitivity to see things in a new perspective and formulate new ways of coping with the stress.

Summary

Those mental traits that today in our society characterize the schizophrenic, in a previous era or in another society may have provided a mechanism for cultural change during the periods of stress when traditional methods of coping with the environment proved unadaptive. In a sense, this perspective views schizophrenia in our society as an evolutionary anachronism with the particular mental attributes representing unrefined, unchanneled, undeveloped capabilities which, in a previous society, may have been recognized early in youth, valued, and shaped into socially useful form. The polygenetically controlled mental functions of such individuals are more prevalent in times of social disorganization and culture breakdown. Culture change has in recent human history become a dominating ethos and is accordingly valued for its own sake. The particular psychological functions of these sensitive individuals are therefore no longer utilized to transcend traditional points of view. The rare but ubiquitous distribution of such individuals in societies through place and time is difficult to explain by notions of idiosyncratic childrearing procedures, family structures, or hereditary disease. Instead we have argued that the process of culture change through revitalization has a polygenetic basis through positive selection of societies containing these individuals in their genetic pool.
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