

## TWO PERSPECTIVES ON THE ETIOLOGY OF PIBLOKTOQ

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Mental illness may be viewed as a disorder common to the human condition and has long been the subject of investigation by various disciplines. Anthropology brings a cross-cultural perspective to this inquiry. Two divergent approaches to the etiology of mental illness<sup>1</sup> are evident in the literature on mental disorders in other cultures. This paper presents an overview of both etiological perspectives with Arctic Hysteria as the focus.

Various areas of the circumpolar region and particular populations inhabiting the areas have been specified in the literature as displaying hysterical-like mental disorders known as the Arctic Hysterias. This paper will generalize the subject matter to the "traditional" Eskimos (before culture contact change) who inhabit the polar regions and who exhibit these behaviors. The native term, "pibloktoq," will be used to denote this condition.

Pibloktoq, a condition which may or may not be a mental disorder, was first brought to the attention of Western scientists by early missionaries and explorers to the northern regions. It has occurred with some frequency among different cultural groups inhabiting the circumpolar regions of the globe. The condition has been surmised to have existed from pre-contact periods and continues to be

manifest in the population, though with less frequency, at the present time.

Pibloktoq is said to be found among, though not necessarily confined to, the Polar Eskimo of Northern Greenland. It has also been generalized by at least one investigator to be common to all aboriginal Eskimos, whatever the circumpolar region (Parker 1962: 77). Other epidemiological factors include accounts of seasonal variation in "outbreaks" of the disorder. Though cases have been known to occur throughout the year, its incidence is most prominent in winter when it can reach almost epidemic proportions (Wallace 1961a: 264). The literature cites adult females as the gender most predisposed to such attacks, though they have been known to occur among adult Eskimo males. There have been no reported cases among children (Gussow 1960: 227). Pibloktoq appears not to be racially specific. European sailors stranded in the Arctic regions for a period of time during the 1800's were reportedly afflicted with similar symptoms (Wallace and Ackerman 1960: 252). There is also a possibility of species non-specificity. "Fits" among sled dogs which usually end in death are regarded by the Eskimo as the same pibloktoq condition as the human variety (Wallace & Ackerman 1960: 253).

The pibloktoq attack is characterized by Western psychological definition as an hysteria, or a frenzied dissociative state of apparent sudden onset. Chief among the symptoms is the convulsive, hysterical seizure which frequently includes the conversion manifestation of paralysis

of the limbs (Vallee 1966: 55). A variety of symptoms have been judged common to the disorder, though all are not present in individual cases.<sup>2</sup> Symptoms include a loss of consciousness during the attack and amnesia of it afterward. The attacks are usually short-lived, lasting from a few minutes to an hour during which time the victim may tear off clothing and run naked into the snow or wade in frigid water, muttering or shouting unintelligibly. Bizarre superhuman feats are sometimes attempted, such as trying to walk the ceiling of an igloo or scaling an iceberg. The victim may throw things about or run around picking up all sorts of objects. Mimetic acts and feces eating have also been reported. Rhythmic singing or moaning and a beating together of the hands has in some cases preceded the flight out into the open and continues during such flights onto the tundra or into the hills. Physical symptoms include tremors, crying, fever, high pulse and bloodshot eyes. The episode usually leaves the victim weak, but rational, and prone to a long period of sleep (Gussow 1960: 224-227).

Among the Eskimo, the attacks are not considered to be anything out of the ordinary as evidenced by the dispassionate attitude of on-lookers during an attack (Wallace & Ackerman 1960: 254). Intervention by others is only forthcoming if it becomes evident that the victim of the attack may harm him or herself or others. Injury has rarely been reported despite the dangerous feats accomplished or attempted during such an episode. Despite the disruptive

nature of such behaviors, the Eskimos regard "going pibloktoq" as a natural thing, something that can happen to anyone (Gussow 1960: 229). Perhaps this is why no native theory of the origin of this disorder has ever been reported (Wallace & Ackerman 1960: 254).

Non-native and specifically Western speculations as to the cause of the Pibloktoq behaviors abound, however. Theories offered by early explorers and missionaries who first brought back accounts of these "bizarre" manifestations among the Eskimos include an environmental theory emphasizing "long polar nights," severe climate, and long periods of isolation (Parker 1962: 79). Explorers Peary and MacMillan felt that the attacks were caused by abuse because the "disease" seemed to occur in women "of jealous disposition" who had been abused by their mates or who perceived themselves to be somehow abused or neglected (Gussow 1960: 224). Other and possibly more plausible theories offered by anthropologists can be categorized into two major perspectives: the psychological which encompasses the psychoanalytic and psycho-social schools of thought and the biological perspective which holds that many behaviors classified as psychological disorders are in fact physiologically based.

The psychological explanation for pibloktoq rests on the determination that the behavior exhibited during an attack falls into the Western psychoanalytic category of "hysteria." According to psychoanalytic definition, hysteria is a "functional" (psychogenic) mental disorder (Wallace 1961a:

167). The first published account of pibloktoq interpreted in terms of psychoanalytic theory dates to 1913. After his examination of the writings of explorers Peary and MacMillan, A.A. Brill, a follower of Freud, determined the seizures to be classic cases of hysteria. Thus, various accounts of pibloktoq were interpreted in Freudian fashion to suggest that the seizures were expressions of frustrations over ungratified love and affection, a common diagnosis of European women thought to be suffering from hysteria during the Freudian "heydey" (Wallace 1961: 264). The fact that most reported cases of pibloktoq occurred among women reinforced this interpretation.

Gussow also viewed the behavior during a pibloktoq episode from a psychoanalytic perspective and determined it to be regressive, a display for the purpose of satisfying an "infantile need for love and emotional support" (1960: 233). He attributed the flight reaction during an attack to an unconscious "invitation to be pursued, i.e., to be attended to, taken care of" (1960: 233-34). This and other behaviors of pibloktoq he felt were manifestations of the Eskimo personality which he characterized as "psychologically primitive and infantile" (1960: 234). He felt that the "disturbed" individual was fraught with some unconscious anxiety that was brought to the surface by any number of the "real world" threats indigenous to the Eskimo lifestyle.<sup>3</sup> The seizure is viewed as a defense mechanism aimed at restoring ego balance (1960: 233).

Seymour Parker (1962) as well as Gussow believed the pibloktoq "performance" to be culturally patterned (Gussow 1960: 233). The nudity exhibited during an attack is not uncommon inside a well heated igloo nor is it uncommon to roll naked in the snow after a sweat bath. The unintelligible sounds as well as the mimicking of animal sounds during an attack may find their origin in the ethnic shamanistic religious rites. Shouting, singing and hurling insults are central aspects of the "drum song," a ritual which allows a socially acceptable outlet for feelings of anger and hostility. Mourning rites feature crying, moaning and wailing, all common components of pibloktoq (Gussow 1960: 232-33). Gussow points out that such group "hysteroid" behavior may be a model for the individual catharsis of pibloktoq during times of personal stress.

Parker further explains the pibloktoq syndrome in terms of Eskimo personality and culture. He believes that hysteria is the correct classification for the pibloktoq behaviors because various characteristics are also found in other societies predisposed to hysterical behavior<sup>4</sup> (1962: 81). Among the characteristics he cites as leading to a predisposition to hysterical reactions among the Eskimo are "child rearing techniques, the cooperative social organization and communalistic value system of Eskimos, and the provisions of sanctioned outlets for hostility and role models for hysterical-like behavior in their traditional religion" (Vallee 1966: 56).

Child rearing practices and early socialization are characterized as permissive and the child quickly learns that "his fretting will bring quick and comforting response from his environment" (Parker 1962: 92). The resulting lack of ability to repress wishes and needs, according to psychoanalytic theory, results in the adult's "infantile display of pibloktoq" to call attention to needs in order to have them satisfied (Foulks 1972: 20; Parker 1962: 92; Gussow 1960: 233).

Parker also views the co-operative and communalistic lifestyle of the traditional Eskimo to be a causative factor in hysterical reactions because there is little room in such a social organization for independent thought, need and behavior. The close proximity with which everyone lived left one under the watchful eye of the community. Just as the community was responsible for the care and survival of the individual, so did the actions of the individual affect the survival of the community. Each group member had a role to play and there was little room for deviation. Social control was maintained through ridicule, shame and humiliation (Foulks 1972: 115). The necessary repression of anger and competitiveness in such a social structure was released during the periodic "drum song" ritual and the shamanistic rites. Vallee points out that in societies where one is bound to certain limited roles, "role incongruence" between what is expected of one and what one is actually capable of being may be a factor in

psychological stress (Foulks 1972: 109). Thus the tenuous existence in a harsh environment necessitates this particular social organization and communalistic value system. Although the means to relieve the additional stressors imposed by such a system are built into the culture, the outlet may not be enough for some individuals who find a catharsis by "going pibloktoq."

The psychological perspective, then, emphasises internal, often unconscious conflicts emanating from the subject's early social learning and conflicts in the current social situation as precipitating factors in mental illness (Wallace 1961a: 172). This perspective espouses the belief that pibloktoq is indeed a psychopathology and that it serves the purpose of reducing individual tension and anxiety (Wallace 1961: 257).

Whereas the psychological perspective emphasizes psychosocial factors in the etiology of mental dysfunction, the biological perspective looks more to organic determinants. Wallace has noted that "various known organic impairments can and do regularly produce symptomatology practically indistinguishable from the whole gamut of 'functional' symptomatology ranging from psychoses to the transient situational reactions" (Wallace 1961a: 172; emphasis added). This alternative view of the etiology of mental disorders includes theories of nutrition emphasizing diet desynchronized calcium rhythms brought on by the erratic light/dark cycles of the Arctic, infections affecting the central nervous system and epilepsy. These various factors



are said to produce disturbances in physiological functioning with resulting behavioral patterns identical to those displayed in pibloktoq.

Two Scandinavian investigators who studied nutritional deficiencies in Greenland found dietary deficiencies in calcium among both the Eskimo and their sled dogs (Wallace & Ackerman 1960: 255). The arctic environment limits the types of food available for the traditional Eskimo diet. The almost exclusive carnivorous diet with no dairy products and little vegetation, both good sources of calcium, were proposed to account for this deficiency. It was hypothesized that since low blood serum calcium can adversely affect the central nervous system, resulting behavior would be similar to that described in the arctic hysterias of the Eskimo. Later studies by Foulks (1972) revealed that the subjects tested were not chronically hypocalcemic (deficient calcium) though he did not rule out calcium levels as a factor in attacks of pibloktoq since most subjects tested below normal range. Other factors could tip the already tenuous calcium balance and further lower serum calcium levels bringing on a pibloktoq episode (Foulks 1972: 8).

Wallace felt that a state of hypocalcemia was adequate to explain the symptoms of tetany<sup>5</sup> often accompanying a pibloktoq attack. The low exposure to solar radiation due to the amount of clothing necessitated by the climate, as well as the lack of sunlight during winter months, would

sufficiently inhibit adequate vitamin D3 formation through the skin. Vitamin D3 is necessary for proper absorption of dietary calcium. Wallace hypothesized that in addition to low calcium intake of the diet, plus low vitamin D3 syntheses, hyperventilation by certain individuals during times of emotional stress would further lower the serum calcium level, producing the seizures and tentany reported in pibloktoq episodes (Wallace 1961: 265-67).

Stimulated by the proposed link to hypocalcemia put forth by Foulks (1972) and Wallace & Ackerman(1960), David Landy (1985) has more recently suggested an alternative nutritionally based hypothesis, hypervitaminosis A, as a precipitating factor in some cases of pibloktoq. The high concentrations of vitamin A found in the liver and fat of animals traditional in the Eskimo diet, which likely contributed to the adaptive advantage of keen eyesight, may also, at times, have accumulated to toxic levels sufficient to provoke episodes characteristic of pibloktoq. Landy believes that extreme behavior exhibited in such episodes may be responses to the painful effects of vitamin A intoxication whose symptoms include severe headache, joint pain, intracranial pressure, nausea, and vertigo. Though he admits that not all the physical effects usually associated with vitamin A toxicity, such as desquamation or peeling of the skin, have been reported for pibloktoq, he feels that many somatic symptoms may have been overlooked by early

investigators in favor of the more dramatic psychopathological symptoms.

The inconsistent light/dark cycles of the polar regions have been found to seriously disturb certain physiological rhythms of the Eskimo. Biological rhythms, both internal and environmental, need to be in synchrony for proper functioning of the central nervous system. Two important environmental synchronizers are the 24-hour light/dark cycles and the accompanying social patterns of sleep and activity. As is typical of the polar high latitude, the light/dark cycles change dramatically during certain times of the year. The social patterns of sleep/activity change as well. When certain bodily rhythms "free-run" out of phase with the 24-hour sleep/activity cycle, "intermittent" psychoses and epilepsy can result (Foulks 1972: 84).

Bohlen found that at all seasons the subject's calcium cycles were out of synchrony with the body's other biological cycles and with the 24-hour day. She suggests that the resulting interference with normal central nervous system functioning would manifest in episodes of pibloktoq in individuals predisposed psychologically to anxiety attacks. In those individuals that may already possess some organic cerebral pathology, the additional load of dysfunctional calcium metabolism could precipitate epileptic seizures. Certain forms of epilepsy manifest in behavior resembling pibloktoq (Foulks 1972: 84).

Another speculation on the cause of central nervous system damage that may eventually lead to displays of mental

dysfunction are the respiratory tract infections common among the Eskimo. Such infections are said to be the result of the cold, dry air of the arctic climate. These infections often lead to high fevers, middle ear disease and meningitis, all capable of adversely affecting central nervous system functioning (Foulks 1972: 115).

The biological perspective, then, views many of the behaviors present during a pibloktoq episode as signs of severe physiological distress. Causative factors leading to this acute condition are believed to primarily stem from the physical environment: limited food sources, extreme temperature and erratic light/dark cycles.

Viewed independently, the psychological and the biological perspectives each present plausible explanations for pibloktoq. On the one hand, the seizure is looked upon as conversion hysteria brought on by extreme anxiety. On the other hand, it is seen as caused by tetany brought on by physiological stress. Both perspectives view the behaviors as an individual imbalance, the one a mental imbalance, the other a physiological imbalance. When viewed side by side, each approach reveals the weakness of the other. The psychological perspective tends to view the body as the constant and mental functions as the variables. The opposite is true of the biological perspective.

Both approaches yield primary causative factors on the etiology of pibloktoq. Each view brings with it other secondary factors: family and social systems, cultural beliefs and practices, nutrition, climate, etc. When the

mind/body dichotomy evident in the two linear approaches is dissolved, however, the two perspectives can be integrated into a holistic ecological approach. This perspective looks to multi-casual determinants of behavior from within the human organism's environment - social, cultural and physical.

Viewed in this respect, pibloktoq may be the result of both psychological and physiological causative factors developing from the milieu of other attenuating factors in the environment. Pibloktoq may well be both psychologically and biologically functional within the Eskimo's environmental matrix. Pibloktoq, as a catharsis may be necessary to the psyche in such an environment. The physiological tendency toward hypocalcemia and the resulting periodic episodes of tenany may have been genetically selected over more serious physical impairments.<sup>7</sup>

The notion that pibloktoq is characteristic of the aboriginal populations inhabiting the polar regions may be entirely correct given the environmental matrix. What is incorrect is to view it ethnocentrically and label it a mental disorder and then generalize that label to the basic Eskimo personality.

Behavior has been "psychologically overdetermined" (Foulks 1972) and in that respect the biological perspective may bring a balance. However, many factors enter into human behavior and different factors become salient from one culture to another, from one individual to another. By taking an ecological perspective of human function, behavior

that now draw the label "mental illness" with the attending negative connotations may be viewed as "normal" adaptive responses of a human organism to its particular ecosystem. The human body as well, may be viewed as a synergistic whole where dysfunctions are not categorized as socially "acceptable" (i.e. physical in nature), or socially "unacceptable" (i.e. mental in nature). The term "mentally ill" that so often jeopardizes the continuing integrity of the individual so labeled, may be more selectively used or fall out of use entirely.

## ENDNOTES

<sup>1</sup>Though there is confusion in the literature as to a definition of mental illness, a general "Western" definition of abnormal or aberrant behavior which results in an individual's incapacity to carry out his or her normal role can be inferred. The definition of mental illness appears to be subject to variation depending on the perspective taken to explain the cause of the mental condition.

<sup>2</sup>Wallace summarizes the "classical course of the syndrome" from the accounts of cases observed by travelers to the region:

1. Prodrome. In some cases a period of hours or days is reported during which the victim seems to be mildly irritable or withdrawn.
2. Excitement. Suddenly, with little or no warning, the victim becomes wildly excited. He may tear off his clothing, break furniture, shout obscenely, eat feces, or perform other irrational acts. Usually he finally leaves shelter and runs frantically onto tundra, or ice pack, plunges into snowdrifts, climbs onto icebergs, and may actually place himself in considerable danger, from which pursuing persons usually rescue him, however. Excitement may persist for a few minutes up to about a half hour.
3. Convulsions and Stupor. The excitement is succeeded by convulsive seizures in at least some cases, by collapse, and finally by stuporous sleep or coma lasting for up to twelve hours.
4. Recovery. Following an attack, the victim behaves perfectly normally; there is amnesia for the experience. Some victims have repeated attacks; others are not known to have more than one." (Wallace 1961: 263).

<sup>3</sup>Gussow believes that the "Eskimo culture institutionalizes 'hysteroid' behavior" in communal "emotive dances and chants" as a "memorialization of all misfortunes and hardships" indigenous to their lives. Such behavior, he believes "reveals the major axes of stress and trauma embedded in Eskimo culture: threat of starvation, insufficiencies of food, loss of members through hunting and other accidents, as well as the physical discomforts and dangers ever present in their lives" (Gussow 1966: 229).

<sup>4</sup>Parker found that hysterical behavior tends to prevail in societies:

- a) Where early socialization experiences are not severe and involve minimal repression of dependency needs and sexual drives. In such societies, where there is relatively high gratification of dependency need, the modal super-ego structure will not be severe or rigid.
- b) Where there is an emphasis on communalistic values, a relatively great amount of face-to-face cooperative patterns, and high expectation of mutual aid.
- c) Where the female role involves considerable disadvantages and lower self-esteem compared to the role of the male.
- d) Where the religious system involves beliefs in supernatural possession and where "hysterical-like" behavior models are provided in the institutionalized religious practices." (Parker 1962: 81)

<sup>5</sup>"The neurological symptoms of tetany include characteristic muscular spasms of hands, feet, throat, face, and other musculature, and in severe attacks, major convulsive seizures. The tetanic syndrome may be precipitated by trivial stimuli and is usually brief and



sporadic rather than continuous (continuous tetany may of course be fatal)" (Wallace 1961: 226).

<sup>6</sup>Wallace believes that an investigation into the possibility of a tendency toward epilepsy being genetically determined by inbreeding in a small, isolated group in Greenland would be a worthy one since reports have been made of a high incidence of epilepsy in northern Greenland compared to other parts of the island.

<sup>7</sup>One factor that mitigates the calcium deficiency hypothesis in pibloktoq is the rarity of rickets and osteomalacia among the Eskimo which would also result from a calcium deficiency. Wallace theorized that "the Eskimo physiology must for generations have been forced to 'choose' between tetany and rickets". . . "and has chosen tetany as the lesser of two evils. (More precisely, of course, it is the environment which has selected the better-fitted physiological alternative.) Rickets and osteomalacia would in a primitive Eskimo economy be fatal because they are physically crippling. Sporadic attacks of tetany, even if occasionally damaging or even fatal, would be by comparison merely an annoyance" (Wallace 1961: 268).

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