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THE SOCIAL PSYCHOLOGY OF 'EPIDEMIC' KORO

ROBERT E. BARTHOLOMEW

SUMMARY

The few isolated reports of individual koro exhibit a symptomatology indicative of major psychiatric conditions (ie. psychosis or affective disorder), and appear unrelated to collective episodes which involve social, cultural, cognitive and physiological factors in the diffusion of koro-related beliefs. Yet, koro 'epidemics' continue to be viewed as exemplifying mass psychopathology or irrationality. An examination of the similarities between koro 'outbreaks' and a sub-category of behaviour which has been loosely labeled as 'mass hysteria', suggests an alternative, non-psychopathological explanation. In reclassifying 'epidemic' koro as a collective misperception rather than a culture-bound syndrome, it is argued that koro is a rational attempt at problem-solving which involves conformity dynamics, perceptual fallibility and the local acceptance of koro-associated folk realities, which are capable of explaining such episodes as normal within any given population.

INTRODUCTION

The origin and nature of koro continues to be debated within transcultural psychiatry. It is typically defined as a culture-bound syndrome involving perceived genitalia shrinkage, acute anxiety, psychosomatic complaints and a conviction in some subjects that death will result once the genitals fully retract. It is most commonly reported among Chinese descendants in Southeast Asia and Southern China.

Varying clinical interpretations have been applied to koro. Many nineteenth century Chinese medical practitioners considered it to be an actual disease capable of inducing genitalia shrinkage (Gwee, 1968). It has also been classified as an obsessive-compulsive disorder (Van Brero, 1897), pathological castration fear (Kobler, 1948), sexual conflict neuroses (Manson-Bahr, 1983), acute hysterical panic syndrome (Gwee, 1963), and delusionary (Ngui, 1969). Yap (1965) states matter-of-factly that those most susceptible are young, poorly educated men with immature dependent personalities lacking in sexual confidence, a position supported by Kiev (1972). More recently Berrios and Morley (1984) suggested the presence of a unitary psychiatric disorder which varies according to social and cultural context, basing their argument on the presence of koro-like symptoms in 15 non-Chinese subjects, 13 of whom suffered from affective disorders. In noting that these subjects hailed from widely dispersed geographical locations and claimed no prior knowledge of koro-related folk beliefs, Berrios and Morley (1984, p.333) concluded that

“koro-like symptoms in non-Chinese subjects may constitute behavioural phenotypes without any underlying cultural genesis”. This finding supports Simons and Hughes’ (1985) contention of the presence of a universal biological etiology.

Collective koro

Collective episodes have been recorded in India (Nandi *et al.* 1985; Sachdev, 1985), Thailand (Jilek & Jilek-Aall, 1977a, 1977b), China (Tseng *et al.* 1992), and Singapore (Mun, 1968; Ngui, 1969), with similar psychopathological explanations being advanced. Gwee *et al.* (1969) consider ‘epidemic’ koro to be a culture-bound panic syndrome. Harrington (1982) interprets collective koro as a form of epidemic psychosis paralleling the European dancing manias, tarantism, and contemporary episodes of mass psychogenic illness. Simons (1985) argues that, as in individual cases, mass episodes also reflect the existence of a universal genital retraction syndrome. Chowdhury (1989a, 1989b) studied the penile length perceptions of 40 single male koro subjects who were affected during an episode which involved thousands of residents in North Bengal, India. Since two years after the episode, most ‘victims’ perceived themselves to possess shorter penises than control subjects, he concluded that they suffered from “dysmorphic penis image perception”. Chowdhury (1989a, p.183) views this as an abnormal psychiatric condition akin to other body image disorders and bordering on psychopathology. Tseng *et al.* (1992, p.117) consider mass episodes to be characteristic of “epidemic mental disorders” primarily affecting poorly educated individuals and those possessing below normal intellectual endowment who are experiencing social crisis or tension. While Ngui (1969) classifies koro as a psychiatric syndrome exacerbated by sociocultural factors, based on interviews with 224 males and eight females reporting symptoms during the Singapore ‘epidemic’ of 1967, no discernible pattern was found between education level and perceived genitalia retraction.

The few known individual cases of perceived penile shrinkage appear to possess physiological, psychiatric or pharmacological etiologies which are possibly exacerbated in rare instances by koro-related cultural traditions. For instance, of the approximately 30 individual cases that have been identified, most exhibited an incomplete symptomatology relative to Yap’s (1965) classic definition and were unambiguously associated with affective disorders (Heyman & Fahy, 1992), drug use (Dow & Silver, 1973), brain tumours (Lapierre, 1972; Rubin, 1982; Durst, 1988), and stroke (Anderson, 1990).¹ However, all known subjects involved in collective episodes were in populations possessing extensive koro traditions, and are explainable utilizing mainstream theories of social psychology. This study will review the known incidents of ‘epidemic’ koro where details are available, arguing that such episodes are most accurately explained as normal rational behaviour which results from a combination of social, cultural, physiological and cognitive influences.

Historical overview

During October and November of 1967, hospitals on the tiny Southeast Asian island republic of Singapore, were inundated by anxious citizens who were convinced that their penises were shrinking and would eventually disappear, at which time, many believed, death would result. Panicked ‘victims’ often used clamps, string, rubber bands, and even

clothes pins in an effort to prevent further perceived retraction. These methods occasionally resulted in severe damage to the organ. In some cases, friends and relatives would hold the penis in relays until assistance was obtained from medical doctors or local healers. At the height of the epidemic, the outdoor clinic of the Singapore Hospital treated about 75 cases per day. The episode occurred amid widespread rumours that the consumption of pork, vaccinated for swine fever prior to slaughter, could precipitate genitalia retraction. Several weeks following the first reports, the panic abruptly ended after the Singapore Medical Association and Health Ministry held public news conferences to dispel fears. Mun (1968, p.641) provides examples of two characteristic cases:

A typical case was that of a 16 year-old schoolboy who dashed into the clinic with his parents shouting for the doctor to attend to him quickly because he had "Shook Yong". The boy looked frightened and pale and he was pulling hard on his penis to prevent the organ from disappearing into his abdomen. The doctor explained and reassured both parents and patient. A tablet of 10mg. of chlordiazepoxide was given at once and he was sent home with two days' supply of chlordiazepoxide. There was no recurrence. The boy had heard about Koro in school. That morning he took "Pow", which contained pork, for breakfast. Then he went to pass urine and noticed his penis shrunk at the end of micturition. Frightened, he quickly grasped the organ and rushed to his parents shouting for help.

A young mother rushed into the clinic holding on to her 4-month-old baby's penis and asking the doctor to treat her child quickly because he had Koro. The child had not been well for two days with cold and a little diarrhea. The mother was changing his napkin and washing his perineum when the child had colic and screamed. The mother saw the penis getting smaller and the child screaming and thought he had Koro. She had previously heard the rumours. The mother was first reassured, and the baby's cold and diarrhea treated. The child was all right after that.

It is noteworthy that Singapore and surrounding countries have extensive traditions promoting an absolute reality in koro (Gwee, 1968). Mun (1968) remarks that sporadic cases of individual koro were treated by Singaporean physicians annually for at least a decade prior to the 1967 episode, adding that of the cases examined by 12 doctors in Singapore during 1967, all had previous koro knowledge. Several textbooks on tropical diseases mention previous episodes in nearby West Borneo and Celebes. Chinese medical texts from the nineteenth century described koro as an identifiable disease. Pao Sian-Ow's treatise, *New Collection of Remedies of Value* (1834) states authoritatively that koro occurs when "the penis retracts into the abdomen. If treatment is not instituted at once and effective, the case will die. The disease is due to the invasion of cold vapors and the treatment is to employ the 'heaty' drugs" (Gwee, 1963, p.120). At the time of the initial circulation of rumours that contaminated pork was causing koro, its existence was institutionalized and legitimated within Singaporean society to an extent that during the 1967 episode, some Chinese physicians believed that a physical disease called koro actually existed and could cause genital shrinkage (Gwee, 1968).

Over 2,000 inhabitants in a remote area of Guangdong, China, were affected by koro between November 1984 and May 1985. Tseng *et al.* (1988, p.1538) note the prevalence of a popular folk belief within the region which was related to “evil-induced genital retraction”. Men within the region are socialized to practice restraint in matters of sexual desire and activity as excessive semen discharge is believed to weaken physical and mental health, even inducing death. Further, many residents believe that certain ghosts of the dead wander in search of penises which will enable them to come back to life. In fact, each of the 232 ‘victims’ surveyed by Tseng *et al.* (1988, p.1539) “embraced the folk belief that *suoyang* was caused by the female fox spirit.”

Before their own attacks, about 76% had actually seen others having attacks and had witnessed the “rescue” of the victims. The episodes usually began during the night (73%), after the onset of chills (69%), when the men experienced a sensation that their penises were shrinking. Thinking this to be a fatal sign and believing that they were affected by an evil ghost, they became panic stricken and tried to pull at their penises, while, at the same time, shouting for help (Tseng *et al.* 1988, p.1540).

Koro is endemic in parts of southern China, with sporadic annual reports and occasional clusters of cases (Jilek, 1986). This region has a history of koro episodes, with confirmed ‘epidemics’ in 1865, 1948, 1955, 1966 and 1974 (Murphy, 1986, Jilek, 1986, Tseng *et al.* 1992). Legendre (1936) reports on a koro episode affecting about 20 males in a school at Szechwan, south China. The ‘outbreak’ occurred in 1908 and persisted for several days. Tseng *et al.* (1992) sought to determine why episodes repeatedly occur in the vicinity of Leizhou Peninsula and Hainan Island, but never spread to the principal section of Guangdong province or other parts of China. Also, why is it that only certain residents in a region report koro, while others do not? It was found that those affected held the most intense beliefs in its reality relative to a control group from the adjacent unaffected area (Tseng *et al.* 1992, p.122), partially explaining “why each time the koro epidemic spread from the Peninsula, it would cease when it reached the urban area of Guangzhou, where the people are more educated and hold less belief in koro”.

Another koro episode transpired in nearby northeast Thailand during approximately November of 1976, and persisted for about two months among an estimated 2,000 residents in the border provinces of Maha Sarakhan, Nakhon, Nong Khai, Thani, and Udon. Symptoms included the perception of penile shrinkage and impotence among males, while females typically reported sexual frigidity, with breast and vaginal shrinkage. Other symptoms were: panic, anxiety, dizziness, diarrhea, discomfort during urination, nausea, headaches, facial numbness and abdominal pain. Some patients temporarily lost consciousness. An investigation by Jilek and Jilek-Aall (1977b, p.58) noted that patients were typically “beset by the fear of imminent death”. Of 350 patients studied in detail, most sufferers sought help from traditional healers. However, irrespective of treatment “most patients had recovered within one day and all within one week” (Suwanlert & Coates, 1979, p.65).

The episode apparently began at a technical college in Udon Thani Province, with the circulation of rumours that Vietnamese immigrants had deliberately contaminated food and cigarettes with a koro-inducing powder. It is significant that during this period, the

minority population of as many as 60,000 Vietnamese immigrants living in northeastern Thailand were ostracized for their economic power and clannish behavior. In the month prior to the episode, anti-Vietnamese sentiments in the region were strong² with allegations by Thailand's Interior Minister that there was "solid evidence" of a plot whereby "Vietnamese refugees would incite rioting in northeast Thailand, providing Vietnam with an excuse to invade" on February 15th.³ As the episode continued, the poisoning rumours became self-fulfilling as numerous Thai citizens recalled that previously consumed food and cigarettes recently purchased from Vietnamese establishments had an unusual smell and taste. However, an analysis of suspected sources by the Government Medical Science Department "detected no foreign substance that could possibly cause sexual impotence or contraction of the male sex organ" (Jilek & Jilek-Aall, 1977b, p.58).

The episode appears clearly related to the world-view of the Thai population that was almost exclusively affected. Thailand is situated in the vicinity of several Southeast Asian countries with koro traditions. Koro rumours, combined with a pre-existing awareness of the 'disease', served to foster and legitimate its plausible existence. For instance, Suwanlert and Coates (1979, p.65) found that 94% of 'victims' studied "were convinced that they had been poisoned". Further, the negative government analysis of alleged tainted substances was undermined by contradictory statements issued by authority figures in the press. Jilek and Jilek-Aall (1977b) note that Thai newspapers cited security officials as attributing the tainted food to a mixture of vegetable sources undetectable by medical devices.

Another case of 'epidemic' koro occurred in the Assam and Bengal regions of India during the summer and fall of 1982. Cases apparently numbered in the thousands, as males claimed penile shrinkage while females perceived that their breasts were getting smaller. The panic reached such proportions "that medical authorities toured the area, reassuring people through loud speakers" (Chakraborty *et al.* 1982). Parents typically tied string to their sons' penises to halt retraction, a practice that occasionally produced penile ulcers. In an effort to diminish concerns from worried parents in the Darjeeling district, authorities measured penises at intervals to demonstrate that no shrinkage was occurring. Perhaps most significantly, there was evidence of pre-existing koro-related beliefs among residents (Chakraborty *et al.* 1982).

The influence of sociocultural context is also evident in a koro-related episode which was reported in Africa during the mid-1970s. While working at a teaching hospital in Kaduna, northern Nigeria in 1975, Ilechukwu (1988) reports that he was approached by a police officer who was accompanied by two men. One of the men made the startling claim that the other had caused his penis to vanish; the officer, acting on orders from his superior, was to obtain a medical report in an effort to settle the dispute. The patient explained that he was walking along a street and "felt his penis go" after the robes worn by the other man had touched him. Incredulous, Ilechukwu initially refused to handle the case, but later agreed to conduct a physical examination, which transpired in full view of the concerned parties. The patient stood and stared straight ahead until it was announced that his genitals were normal. Reacting in disbelief, the patient glanced down at his genitals and suggested that they had just reappeared! The policeman then indicated that charges would be pressed against the man for falsely reporting an incident. This case may

appear to be an exotic, unambiguous example of mental disturbance or extreme deviance. After all, it sounds incredible that someone could come to believe that entire body parts were missing when clearly they were not. Yet, Ilechukwu reports that upon subsequent investigation, there appeared to be an 'epidemic' of similar cases in Nigeria between 1975 and 1977. In attempting to better understand koro-related rumour-panics in Nigeria, Ilechukwu (1988, p.313) speculates as to the possible role of existing sociocultural traditions:

Various ethnic groups in Nigeria ascribe high potency to the external genitalia as ritual and magical objects to promote fecundity or material prosperity to the unscrupulous. Ritually murdered persons are often said to have these parts missing. These speculations may be fertile ground for unconscious cultural symptom construction by predisposed individuals.

Ilechukwu also notes that during the vanishing penis 'epidemic' in 1977, he treated a patient with koro who had tied string to his penis in an effort to prevent further shrinkage.⁴

Social psychology

In most cases 'victims' of collective koro return to a normal state of health soon after being convinced that the 'illness' is over or never existed. This symptomatology is consistent with perceptual psychology research which supports the predisposition of an observer to interpret information patterns in a particular manner which is significantly influenced by their mental set at the time. Studies on the fallibility of human perception and conformity dynamics are especially apposite. The accuracy of eyewitness testimony is remarkably subject to error and preconditioned by mental outlook (Buckout, 1974). Further, the selective and organizational nature of perception is based more on inference than objective reality, allowing for interpretations which often differ substantially from reality. In such situations, "inference can perform the work of perception by filling in missing information in instances where perception is either inefficient or inadequate" (Massad *et al.* 1979). The variance of interpretations from objective reality is especially pronounced involving the perception of ambiguous stimuli or conflicting patterns of information within a group setting, which will result in members developing an increased need to define the situation, depending less on their own judgement for reality validation and more on the judgement of others. Since individuals are more dependent upon others and less on themselves in their construction of social reality, an opinion, attitude, or conviction "is 'correct', 'valid', and 'proper' to the extent that it is anchored in a group of people with similar beliefs, opinions and attitudes" (Festinger, 1950 p.272). Individuals continually engage in reality testing by comparing their perceptions with those of others around them.

What is defined as reality by any particular individual, group or culture, is socially constructed (Berger & Luckmann, 1967). Humans arbitrarily create their own social order and meanings based primarily upon faith, and an integral part of ordering social reality involves perceptual sets, which are essentially orientations toward viewing the world.

Perceptual sets are the means by which we order, perceive and interpret reality. The complex reality of a forest, for example, will be perceived quite differently by a botanist, an entomologist, a logger, a poet, and a little boy who is lost. Similarly, a college campus is perceived much differently by students majoring in architecture and by those majoring in police science, to say nothing of the differing perceptions held by professors, the administration, the custodial staff, and the newly arrived freshman (Conner, 1975, p.367).

Hence, culture, in a strict cognitive sense, is a collection of similar perceptual sets through which a particular people impose order by defining 'reality' (Conner, 1975). In defending the fruitfulness of utilizing interpretive approaches in cognitive anthropology to explicate the meaning of 'foreign' conduct codes, Shweder (1986) provides several examples of behaviour which he views as not being representative of the traditional rational/irrational dichotomy, but *nonrational*, as given the nature of perceptual sets, it is normal for human groups to stress contrary types of reality. Shweder's examples differ vastly from contemporary Western beliefs about morality, rationality, and mental health. In a similar sense, the possibility that certain peoples could erroneously believe their genitalia to be shrinking, has typically received deviant, abnormal or psychopathological evaluations by Western trained social scientists. Shweder notes, for instance, that the Yir-Yiront Aborigines believe that animal and green spirits are responsible for pregnancy, while on the Arabian Peninsula it is widely held that breast milk from pregnant women is poisonous. He continues:

The Azande go in for oracular consultation. Posed a yes or no question, administered a modest dose of strychnine, the Azande oracle, a chicken, either lives or dies - yes or no. The oracle does not lie - or so the Azande believe.

Killing people outside the clan is popular among the Gahuku-Gama - conduct worthy of commendation - unless the outsider happens to be a maternal kinsman. Scrupulous in avoiding uterine kin in battle, the moral proscriptions of the Gahuku-Gama fail to generalize: other clansmen are "awarded points" for taking the head of your maternal relatives.

Other New Guinea groups go in for homosexuality in a big way. The "life force" of the tribe must be passed on by the males from generation to generation. Contained in semen, the life force gets passed on all right, orally, fellatio between "uncles" and their young "nephews" (Shweder, 1996, p.29).

Physiological factors

Exacerbating cultural and social influences, is the role of physiological factors in the genesis of collective koro. For instance, Edwards (1984) cites physician-investigated cases of genital retraction due to both physical trauma and unknown reasons, in addition to the common experience of genital shrinkage in response to cold, excessive physical exertion and aging. Mun (1968) states that diminution of penis size typically occurs in conjunction with illness and following micturition. Patrick (1971) suggests that the appearance of penile retraction may result from abdominal gas or a vigorous cremasteric reflex. Further, Oyebode *et al.* (1986) have demonstrated that heightened anxiety levels can precipitate minute, but discernible penile shrinkage.

Parallels to collective koro

The label of 'mass hysteria' has been inappropriately applied to a variety of heterogeneous transcultural behaviors in an attempt to categorize what is typically viewed as abnormal, deviant or bizarre by Western-trained social scientists, within a convenient and unitary psychiatric rubric which is both pejorative and ethnocentric (Bartholomew, 1990a). Such evaluations typically ignore or underemphasize the complexities of evaluating cultures and subcultures possessing social realities that differ significantly from those of the researcher.⁵ Incidents of collective koro, which have also been viewed as a culture-specific variant of 'epidemic hysteria' (Gwee, 1968; Gwee & Ransome, 1973; Sirois, 1974; Jilek & Jilek-Aall, 1977a; Tan, 1980; Massey *et al.* 1981; Harrington, 1982), share similar characteristics with a variety of diverse social phenomena that have received similar grandiose categorizations. Classic examples include the reinterpretation of mundane aerial phenomena in the wake of a perceived Martian invasion (Cantril, 1940), ever-present windshield damage (Medalia & Larsen, 1958), and mundane odors and body sensations (Johnson, 1945).

The Table lists all known cases of behavior that I will term as "collective illusionary misperception". This category involves the rapid spread of false beliefs which gain a pseudo-reality within a particular demographic and sociocultural context. An individual's attempt to confirm or deny the accuracy of plausible, unsubstantiated stories, they focus extraordinary attention on objects or events related to the rumours. In doing so, they reinterpret ever-present, prosaic phenomena such as decaying cattle (Stewart, 1977), minute windscreen damage (Medalia & Larsen, 1958), or incidental body lacerations (Jacobs, 1965), in accordance with this newly emerging definition of the situation, resulting in a self-fulfilling prophesy (Thomas, 1923). During the famous Orson Welles live radio drama on the evening of October 30, 1938, many Americans panicked after listening to a realistic reenactment of a novel by H.G. Wells, *War of the Worlds*, depicting a fictitious Martian landing in New Jersey. Concordant with this new definition of reality and corresponding perceptual orientation, several New Jersey residents reported to police observations "of Martians on their giant machines poised on the Jersey Palisades" (Markush, 1973, p.379). While some of these episodes may seem fantastic and naïve to western observers, such as mass panics of perceived genital shrinkage, or the fear of a mad gasser poisoning women, each of the cases in the Table occurred among cultures or subcultures that were exposed to plausible information suggesting that the particular rumours were real. For instance, in the case of the 'phantom anesthetist' of Mattoon (Johnson, 1945), local newspapers citing authorities such as police and chemical experts, initially reported the existence of a crazed gasser as an established fact, the target of which was apparently women. This prevailing definition of the situation encouraged Mattoon females to alter their perceptual sets and reinterpret mundane events as gasser-related. The formation of vigilante groups patrolling the streets at night further reinforced the legitimacy of media and authority pronouncements.

Examples of collective misperception

In Mattoon, Illinois, between August 31 and September 12, 1944, police received 25 separate reports from citizens claiming to have been sprayed with a mysterious incapacitating gas by someone dubbed the 'phantom anesthetist'. The initial ambiguous

Table
Chronological list of 'collective illusionary misperception' cases

Investigator	Location and year	Form	Precipitating events	Mechanism	Minimum # affected
Bartholomew (1989b;1990b; 1991)	Worldwide since 1896	Unidentified flying objects	sensational initial case	autokinetic movement; misperceptions	1,000s
McCloy & Miller (1976)	New Jersey, 1909	Jersey 'Devil'	sensational initial case; rumours	misperceptions; misidentification of footprints	1,000s
Park (1986); Bartholomew (1992a)	Australia, since 1936	Tasmanian 'Tiger'	sensational initial case & publicity	misperceptions of ambiguous objects	600
Cantril (1940)	USA 1938	Martian spaceships	hoax radio play; rumours	misperception of prosaic nocturnal aerial stimuli	Several
Johnson (1945)	Matoon Illinois, 1944	phantom gasser	sensational initial case	focus on mundane body paralysis; odors	25
Tumin & Feldman (1955)	Puerto Rico, 1953	Virgin Mary sightings	visions & subsequent predicted appearance	autokinetic effect; misidentification of mundane phenomena	1,000s
Medalia & Larsen (1958)	Seattle, Washington, 1954	windshield pitting	atomic bomb tests	reinterpretation of mundane damage	300
Jacobs (1965)	Taipei, China 1956	knife attacks	rumours	scrutinization of mundane lacerations	21
Mun (1968); Ngui (1969)	Singapore, 1967	shrinking genitalia	contaminated pork rumours	scrutinization of genitalia	536
Yassa (1980)	Zeitoun, Egypt, 1968	Virgin Mary sightings	sensational initial case	misperception of ambiguous stimulus	Crowds
Miller <i>et al.</i> (1978)	Enfield, Illinois, 1973	monster	sensational initial case	misperceptions	Several
Stewart (1977); Bartholomew (1992b)	Midwest 1974	cattle mutilations	UFO sightings, rumours	scrutinization of mundane deaths	Dozens
Ilechukwu (1988)	Nigeria, 1975-76	vanishing genitalia	rumours	self-fulfilling belief in magic; reinterpretation of genital tingling after incidental body contact	Multiple
Jilek & Jilek-Aall (1977a,b)	Thailand, 1976	shrinking genitalia	rumours of tobacco & food poisoning	scrutinization of genitalia	2,000
Harrington (1982)	Thailand circa 1981	shrinking genitalia	rumours of food & tobacco contamination	scrutinization of genitalia	100s
Dutta <i>et al.</i> (1982); Sachdev (1985)	India, 1982	shrinking genitalia	rumours	scrutinization of genitalia	1,000s
Toibin (1985)	Eire, Ireland, early 1980s	moving statues	sensational initial case	visual illusion precipitated by overscrutinization	1,000s
Tseng <i>et al.</i> (1988)	China, 1984-85	shrinking genitalia	rumours	scrutinization of genitalia	2,000
Tseng <i>et al.</i> (1992)	China, 1987	shrinking genitalia	rumours	scrutinization of genitalia	300
Bartholomew <i>et al.</i> (1992)	New York & Vermont States since indigenous settlement	Bigfoot	rumours	misidentification of prosaic events & objects	100s

incident received sensational home town newspaper coverage after a woman reported that someone had opened her bedroom window as she was retiring for the night. Simultaneously she noticed a shadowy figure near the window, experienced temporary leg numbness and perceived an unusual odor. Johnson (1945) described the series of reports as an episode of mass hysteria, noting that 93% of the 'victims' were females of low socioeconomic status who were uncritical in evaluating the situation. However, based on the initial report and the subsequent anxiety levels that it fostered, in the wake of mundane incidents such as the perception of a shadowy nocturnal figure or chemical odors from the many nearby factories, ever-present events, including psychosomatic anxiety reactions (eg. heart palpitations, nausea, dizziness, sweating, 'pins and needles') became redefined in accordance with this new view of reality. The preponderance of women affected is explainable since the media initially defined them as the perceived targets. Further, cases involving several men who reported headaches from gas aftereffects, were not counted as 'hysteria' victims since they were not women (Miller, 1985).

On May 25, 1953, upwards of 150,000 people gathered within a ten-acre site surrounding a well at Rincorn, Puerto Rico, to observe the predicted appearance of the Virgin Mary by seven local children, at 11am. As the hour approached, numerous miracles were reported. Some observers perceived coloured rings around the sun; many claimed the Virgin was silhouetted among the clouds, while others recorded healings (Tumin & Feldman, 1955). By 5pm. when most of the crowd had dispersed, others saw or experienced nothing extraordinary.

It is significant that the predicted miracle received enthusiastic media publicity and the mayor of a nearby town unhesitatingly endorsed the prediction, organizing the children to lead throngs of pilgrims in mass prayers and processions prior to the event (Goode, 1992). At the time of the 'miracle', a team of sociologists who mingled with the crowd and conducted interviews found that the majority of pilgrims believed in the authenticity of the children's claim, and were seeking cures for either themselves or friends and relatives (Tumin & Feldman, 1955). A variety of ambiguous objects in the immediate surroundings served as a Rorschach Inkblot test, mirroring the hopeful and expectant religious state of mind of many participants at the time.

During 1956, an episode of phantom razor blade attacks occurred in Taipei, Taiwan. On the basis of rumours amplified by widespread newspaper coverage that typically treated the existence of a maniacal slasher as an absolute fact, 21 persons claimed to have been slashed by a razor blade or a similar type of weapon over a two-week period. Jacobs (1965) found that affected persons, mainly women and children of low income and education, reinterpreted mundane, ever-present slash marks, as owing their genesis to a crazed slasher.⁶ Jacobs (1965) offers two typical examples. In one case, a middle-aged man reported to police that he was slashed by a man carrying a mysterious black bag. When the examining doctor determined that a dull object, and not a razor was involved, the victim then admitted that he was unsure how or when the laceration had occurred but he had assumed a razor was involved "because of all the talk going around". In another instance, the Police Commissioner described the case of an elderly man who sought medical treatment for a lacerated wrist. The examining doctor advised the man to report the details to police after he casually mentioned the presence of a suspicious stranger who had

touched him at about the same time he first noticed the bleeding. Police subsequently concluded that the 'slash' had resulted from the inadvertent scratching of a previous wound.

Between 1969 and 1980, several sporadic episodes of cattle 'mutilation' were reported across much of the mid-western United States, representing a form of 'mass hysteria' (Stewart, 1977; Hines, 1988). Hundreds of dead cattle were found with one or more parts missing, most commonly the sex organs, ears and mouth. The episodes occurred amid rumours that Satan worshippers or extraterrestrials were responsible. The widespread belief in the existence of extraterrestrial visitants was common in the United States during this period (Bartholomew, 1991) with several popular books (Smith, 1976; Dalton, 1980) and television programs (eg. Howe, 1980), suggesting an association between perceived mutilations and either cultists or extraterrestrials. Hundreds of circumstantial UFO and cult-related press speculations appeared during this period in ordinarily credible media,⁷ lending further plausibility to the rumours. As mutilation stories gained widespread media attention within the affected areas, the number of cases rose dramatically. While dead cattle often have organs consumed by various natural predators, many ranchers, who would not ordinarily pay close attention to their animal carcasses, in the presence of the mutilation publicity, began scrutinizing the cadavers for evidence of alleged alien or cultic surgical removal of body parts. According to Stewart (1977), the 'mutilations' were caused by small nocturnal predators that are unable to easily penetrate cattle hides, gravitating to the most exposed and softest parts, with sharp side teeth giving the impression of surgical incisions. The lack of blood in many of the animals provided credence to the blood-cult rumours despite veterinarians who cautioned that the blood in dead animals coagulates after several days, giving the impression that the carcass was drained.⁸

CONCLUSION

Each of the episodes listed in the Table are characterized by the existence of plausible rumours of perceived importance that gained widespread credibility to the likely presence of a particular fantastic belief. As people attempted to confirm or deny the rumours, they focused extraordinary attention on rumour-related objects - be it mundane lacerations (Jacobs, 1965), ever-present windscreen pits (Medalia & Larsen, 1958) or genitalia (Mun, 1968; Jilek & Jilek-Aall, 1977a, 1977b; Nandi *et al.* 1985; Sachdev, 1985). Ambiguity, anxiety and extreme positive (Yassa, 1980) or negative (Johnson, 1945) emotions were present, and the redefinition of a situation from general and ambiguous to specific and absolute.

The utilization of temptingly convenient, unitary disease, disorder or abnormality models of mental disturbance in evaluating unusual or unfamiliar behavior patterns such as koro, or seemingly bizarre Western beliefs such as the existence of phantom mutilators (Stewart, 1977), saviours (Tumin & Feldman, 1955) or legendary creatures (Bartholomew *et al.* 1992), fail to adequately address the significance of transcultural social realities. Such beliefs alter the orientation of self-fulfilling perceptual sets and are formed within a complex mosaic of social, cultural, physiological and cognitive influences. To categorize

the perceptual consequences of world-views that differ significantly from those of contemporary Western social scientists, is to ignore the enormously rich and diverse ethnographic record.

Notes

¹ Tseng *et al.* (1988 p.1538) note that most of Berrios and Morley's subjects "manifested incomplete symptoms (as a koro case is defined). Such koro-like states, as secondary symptoms, are usually observed as a part of the primary psychiatric condition, such as affective disorder or psychosis."

² Andelman, D. Thai Junta Re-Examines Relations with Neighbor Nations and U.S., *New York Times*, October 18, 1976. Vietnam Accuses Thai Regime and Demands That It Free 800, *New York Times*, October 28, 1976, p.30.

³ Andelman, D. Campaign Grows Against Vietnamese in Thailand Region, *New York Times*, December 12, 1976, p.3.

⁴ *Transcultural Psychiatric Research Review* (1988) 25, 314, makes reference to a "minor outbreak" of koro-like symptoms in Lagos, Nigeria during 1979.

⁵ Smelser (1962) typifies this position. Most mass hysteria studies implicitly or explicitly utilize his value-added theory of collective behavior which emphasizes the role of grandiose structural elements in facilitating irrational, abnormal 'hysterical' episodes. However, while Smelser's paradigm argues that such elements as extraordinary ambiguity, anxiety and structural strains are present in all episodes, these categories are only identified retrospective to 'outbreaks', and are so vaguely defined as to be present in all societies during all periods (Bartholomew, 1989a).

⁶ A similar episode occurred in Paris during the early twentieth century as numerous citizens mistakenly claimed to have been "pricked with a long hat pin or the like" (Burnham (1924), pp.337-338).

⁷ See for examples: "Cattle Mutilations Remain a Mystery", *Eagle River News Review* (Wisconsin), January 26, 1978; "Mystery Still Surrounds Animal Mutilations", *Springdale News* (Arizona) November 26, 1978; "Tracking the Cattle Mutilators: Satanic Groups Suspected," *Newsweek*, 95, 16 (January 21, 1980); "Did Horse Mutilator Come From Outer Space." *Gastonia Gazette* (North Carolina), May 24, 1980; "Cattle Ripper Returns," *The Sun* (Edmonton, Canada), September 17, 1981; "Dluce Rancher Loses Another Cow to Mysterious Mutilation," *Albuquerque Journal* (New Mexico), May 31, 1982.

⁸ In terms of legitimation by institutions of social control and authority figures, during April of 1979, the federal government approved a \$44,170 grant to investigate a series of

mutilations in New Mexico. Despite finding only prosaic explanations: predators, scavengers, decomposition; US Senator and former astronaut Harrison Schmitt continued to focus national attention on the issue by urging the US Justice Department to initiate a separate probe (Olson, 1980). For an examination of the apparent genesis of the cattle mutilation myth, refer to Bartholomew (1992b).

REFERENCES

- ANDERSON, D.N. (1990) Koro: the genital retraction symptom after stroke. *British Journal of Psychiatry*, **157**, 142-144.
- BARTHOLOMEW, R.E. (1989a) The South African monoplane hysteria: an evaluation of the usefulness of Smelser's theory of hysterical beliefs. *Sociological Inquiry*, **59**:3, 287-300.
- BARTHOLOMEW, R.E. (1989b) *UFolore: A Sociological Study of a Modern Myth in the Making*. Stone Mountain, Georgia: Arcturus.
- BARTHOLOMEW, R.E. (1990a) Ethnocentricity and the social construction of 'mass hysteria'. *Culture, Medicine and Psychiatry*, **14**, 455-494.
- BARTHOLOMEW, R.E. (1990b) The airship hysteria of 1896-97. *Skeptical Inquirer*, **14**:2, 171-181.
- BARTHOLOMEW, R.E. (1991) The quest for transcendence: an ethnography of UFOs in America. *The Anthropology of Consciousness*, **2**:1-2, 1-12.
- BARTHOLOMEW, R.E. (1992a) A brief history of 'mass hysteria' in Australia. *The Skeptic*, Australia, **12**:1, 23-26.
- BARTHOLOMEW, R.E. (1992b) Mutilation mania - the witch craze revisited: an essay review of an alien harvest. *The Anthropology of Consciousness*, **3**:1-2, 23-25.
- BARTHOLOMEW, R.E., BARTHOLOMEW, P.B., BRANN, W. & HALLENBECK, B. (1992) *Monsters of the Northwoods: An Investigation of Bigfoot Sightings in New York and Vermont*. Utica, New York: North Country Books.
- BERGER, P. & LUCKMANN, T. (1967) *The Social Construction of Reality*. New York: Anchor Books.
- BERRIOS, G.E. & MORLEY, S.J. (1984) Koro-like symptom in a non-Chinese subject. *British Journal of Psychiatry*, **145**, 331-334.
- BURNHAM, W.H. (1924) *The Normal Mind*. New York: D. Appleton-Century.
- BUCKOUT, R. (1974) Eyewitness testimony. *Scientific American*, **231**:6, 23-31.
- CANTRIL, H. (1940) *The Invasion from Mars: A Study in the Psychology of Panic*. Princeton: Princeton University Press.
- CHAKRABORTY, A., DAS, S. & MUKHERJI, A. (1982) *Transcultural Psychiatry Newsletter*, **3**, 3-4.
- CHOWDHURY, A.N. (1989a) Penile perception of koro patients. *Acta Psychiatrica Scandinavica*, **80**, 183-186.
- CHOWDHURY, A.N. (1989b) Dymorphic penis image perception: the root of koro vulnerability. *Acta Psychiatrica Scandinavica*, **80**, 518-520.
- CONNER, J.W. (1975) Social and psychological reality of European witchcraft beliefs. *Psychiatry*, **38**, 366-380.
- DALTON, J.J. (1980) *The Cattle Mutilators*. New York: Manor.
- DOW, T.W. & SILVER, D.A. (1973) A drug induced koro symptom. *Journal of the Florida Medical Association*, **60**, 32-33.
- DURST, R. (1988) Koro secondary to a tumour of the corpus callosum. *British Journal of Psychiatry*, **153**, 251-254.
- DUTTA, H., PHOOKAN, R. & DAS, P.D. (1982) The koro epidemic in Lower Assam. *Indian Journal of Psychiatry*, **24**, 370-374.
- EDWARDS, J.E. (1984) Indigenous koro, a genital retraction syndrome of insular southeast Asia: a critical review. *Culture, Medicine and Psychiatry*, **8**, 1-24.
- FESTINGER, L. (1950) Informal social communications. *Psychological Review*, **57**, 271-280.
- GOODE, E. (1992) *Collective Behavior*. New York: Harcourt Brace Jovanovich.
- GWEE, A.L. (1963) Koro - a cultural disease. *Singapore Medical Journal*, **4**, 119.
- GWEE, A.L. (1968) Koro - its origin and nature as a disease entity. *Singapore Medical Journal*, **9**, 3.
- GWEE, A.H., LEE, Y.K., THAM, N.B., CHEE, K.H., CHEW, W., NGUI, P., WONG, Y.C., LAU, C.W. & TSEE, C.K. (1969) The koro 'epidemic' in Singapore. *Singapore Medical Journal*, **10**, 234-242.
- GWEE, A.H. & RANSOME, G.A. (1973) Neurological disorders in Singapore. In *Tropical Neurology* (ed. J.D. Spillane), 283-298. London: Oxford University Press.

- HARRINGTON, J.A. (1982) Epidemic psychosis. Letter, *British Journal of Psychiatry*, **141**, 98-99.
- HEYMAN, I. & FAHY, T.A. (1992) Koro-like symptoms in a man infected with the human immunodeficiency virus. *British Journal of Psychiatry*, **160**, 119-121.
- HINES, T. (1988) *Pseudoscience and the Paranormal: A Critical Examination of the Evidence*. Buffalo, New York: Prometheus.
- HOWE, L.M. (producer) (1980) "A Strange Harvest". Television documentary premiering on KMGH, Channel 7 Denver, Colorado, May 25 1980.
- ILECHUKWU, S.T.C. (1988) Letter from S.T.C. Ilechukwu, MD (Lagos, Nigeria) which describes interesting koro-like syndromes in Nigeria. *Transcultural Psychiatric Research Review*, **25**, 310-314.
- JACOBS, N. (1965) The phantom slasher of Taipei: mass hysteria in a non-western society. *Social Problems*, **12**, 318-328.
- JILEK, W.G. & JILEK-AALL, L. (1977a) Mass hysteria with koro symptoms in Thailand. *Schweizer Archive Neurologie Neurochirurgie un Psychiatrie*, **120:2**, 257-259.
- JILEK, W.G. & JILEK-AALL, L. (1977b) A koro epidemic in Thailand. *Transcultural Psychiatric Research Review*, **14**, 57-59.
- JILEK, W.G. (1986) Epidemics of 'genital shrinking' (koro): historical review and report of a recent outbreak in southern China. *Curare*, **9**, 269-282.
- JOHNSON, D.M. (1945) The 'phantom anesthetist' of Mattoon: a field study of mass hysteria. *Journal of Abnormal Psychology*, **40**, 175-186.
- KIEV, A. (1972) *Transcultural Psychiatry*. New York: The Free Press.
- KOBLER, F. (1948) Description of an acute castration fear, based on superstition. *Psychoanalytical Review*, **35**, 285-289.
- LAPIERRE, Y.D. (1972) Koro in a French Canadian. *Journal of the Canadian Psychiatric Association*, **17**, 333-334.
- LEGENDRE, J. (1936) Une curieuse epidemie (koro). *Presse Medicale*, Paris, 1534.
- MANSON-BAHR, P.H. (1983) *Manson's Tropical Diseases*. 18th Edition. Eastbourne: Cassel.
- MARKUSH, R.E. (1973) Mental epidemics: a review of the old to prepare for the new. *Public Health Reviews*, **2:4**, 353-442.
- MASSAD, C.M., HUBBARD, M. & NEWSTON, D. (1979) Selective perception of events. *Journal of Experimental Social Psychology*, **15**, 513-532.
- MASSEY, E.W., BRANNON, W.L.JR. & RILEY, T.L. (1981) The 'jerks': Mass hysteria or epilepsy? *Southern Medical Journal*, **74:5**, 607-609.
- McCLOY, J.F. & MILLER, R. (1976) *The Jersey Devil*. Wallingford, Pennsylvania: Middle Atlantic Press.
- MEDALIA, N.Z. & LARSEN, O. (1958) Diffusion and belief in a collective delusion. *Sociological Review*, **23**, 180-186.
- MILLER, D.L., MIEUS, K.J. & MATHERS, R.A. (1978) A critical examination of the social contagion image of collective behavior: the case of the Enfield Monster. *Sociological Quarterly*, **19**, 129-140.
- MILLER, D.L. (1985) *Introduction to Collective Behavior*. Belmont, California: Wadsworth.
- MUN, C.I. (1968) Epidemic koro in Singapore. Letter, *British Medical Journal*, **i**, 640-641.
- MURPHY, H.B.M. (1986) *The Koro Epidemic in Hainan Island*. Paper presented to the Regional Conference of the World Psychiatric Association's Transcultural Psychiatry Section, Beijing, China, August 17-31.
- NANDI, D., BANERJEE, G., BERA, S., NANDI, S. & NANDI, P. (1985) Contagious hysteria in a West Bengal village. *American Journal of Psychotherapy*, **39**, 247-252.
- NGUI, P.W. (1969) The koro epidemic in Singapore. *Australian and New Zealand Journal of Psychiatry*, **3**, 263-266.
- OLSON, G. (1980) Schmitt urges federal mutilation probe. *Rio Grande Sun*, April 17.
- OYEBODE, F., JAMIESON, M.J. & DAVISON, K. (1986) Koro - a psychophysiological dysfunction. *British Journal of Psychiatry*, **148**, 212-214.
- PARK, A. (1986) Tasmanian Tiger: extinct or merely elusive? *Australian Geographic*, **1**, 66-83.
- PATRICK, E. (1971) Emotional stresses in university students. In *Psychological Problems and Treatment in Malaysia* (eds. N.N. Wagner & E.S. Tan), 81-87. Kuala Lumpur: University of Malaya Press.
- RUBIN, R.T. (1982) Koro (Shook Yang): a culture-bound psychogenic syndrome. In *Extraordinary Disorders of Human Behavior*. (eds. C.T.H. Friedmann & R.A. Faguet). New York: Plenum.
- SACHDEV, P.S. (1985) Koro epidemic in north-east India. *Australian and New Zealand Journal of Psychiatry*, **19**, 433-438.
- SCHWEDER, R.A. (1986) Anthropology's romantic rebellion against the enlightenment, or there's more to thinking than reason and evidence. In *Culture Theory: Essays on Mind, Self and Emotion* (eds. R.A. Schweder & R.A. LeVine), 27-66. New York: Cambridge University Press.

- SIMONS, R.C. (1985) Introduction: the genital retraction taxon. In *The Culture-Bound Syndromes* (eds. R.C. Simons & C.C. Hughes), 151-153. Boston: Reidel.
- SIMONS, R.C. & HUGHES, C.C. (eds) (1985) *The Culture-Bound Syndromes*. Boston: Reidel.
- SIROIS, F. (1974) Epidemic hysteria. *Acta Psychiatrica Scandinavica Supplementum*, **252**, 7-46.
- SMELSER, N.J. (1962) *Theory of Collective Behavior*. New Jersey: Prentice-Hall.
- SMITH, F.W. (1976) *Cattle Mutilation: The Unthinkable Truth*. Cedaredge, Colorado: Freeland.
- STEWART, J.R. (1977) Cattle mutilations: an episode of collective delusion. *Skeptical Inquirer*, **1:2**, 55-66.
- SUWANLERT, S. & COATES, D. (1979) Epidemic koro in Thailand - clinical and social aspects. Abstract of the report by F.R. Fenton appearing in *Transcultural Psychiatric Research Review*, **16**, 64-66.
- TAN, E.S. (1980) Culture-bound syndromes among overseas Chinese. In *Normal and Abnormal Behavior in Chinese Culture* (eds. A. Kleinman & T.Y. Lin) 371-386. Boston: Reidel.
- THOMAS, W.I. (1923) *The Unadjusted Girl*. Boston: Little, Brown.
- TOIBIN, C. (1985) *Moving Statues in Ireland: Seeing is Believing*. Country Laois, Erie: Pilgram Press.
- TSENG, W.S., KAN-MING, M., HSU, J., LI-SHUEN, L., LI-WAH, O., GUO-QIAN, C. & DA-WEI, J. (1988) A sociocultural study of koro epidemics in Guangdong, China. *American Journal of Psychiatry*, **145:12**, 1538-1543.
- TSENG, W.S., KAN-MING, M., LI-SHUEN, L., GUO-QIAN, C., LI-WAH, O. & HONG-BO, Z. (1992) Koro epidemics in Guangdong, China: a questionnaire survey. *The Journal of Nervous and Mental Disease*, **180:2**, 117-123.
- TUMIN, M.M. & FELDMAN, A.S. (1955) The miracle at Sabana Grande. *Public Opinion Quarterly*, **19**, 124-139.
- VAN BRERO, P.C.P. (1897) Koro, eine eigenthumliche zwangsvorstellung. *Allgemeine Zeitschrift fur Psychiatrie*, **53**, 569-573.
- YAP, P.M. (1965) Koro - a culture-bound depersonalization syndrome. *British Journal of Psychiatry*, **111**, 43-50.
- YASSA, R. (1980) A sociopsychiatric study of an Egyptian Phenomenon. *American Journal of Psychotherapy*, **34**, 246-251.

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