The generic name for phenomena that include mystic experiences, meditation, hypnosis, trance and possession is altered states of consciousness (ASC) (Ward, 1989). In the Protestant tradition of the Christian religion and among agnostic scientists ASC traditionally had a strong flavor of abnormality. However, today the practicing of yoga or other forms of meditation has become fairly common in western countries, and some form of trance is apparent in techno music. The use of mild psychoactive substances such as marihuana and cocaine is widespread. Their consumption goes back to prehistoric times and excepting abuse they have apparently been integrated in the life of the groups who for a long time have been familiar with their effects.

Four criteria distinguish ASC from other states of consciousness (i.e., sleep, dreaming and wakefulness). The most important is introspection; self-reports make clear that those experiencing such states perceive them to be temporary and different from the normal state of consciousness. During ASC, sensations, cognitive processes and emotions are changed.

Observations by outsiders of the behavior that people display during ASC form the second criterion for identification. Unusual patterns of motor behavior and facial expression often make it immediately obvious to the observer that a person is in an uncommon state. Combining these two criteria, the following are characteristic for ASC in contrast to a “normal” state of consciousness: (1) alteration in thinking, (2) disturbance of time sense, (3) loss of control, (4) change in emotional expression, (5) change of body image, (6) perceptual distortions, (7) change in meaning or significance (heightened significance to subjective experience), (8) sense of the ineffable, (9) feelings of rejuvenation, (10) hypersuggestibility (Ludwig, 1969).

Induction is the third criterion. Classifications of ASC states tend to be based on the various means of induction (Dittrich, Von Arx and Staub, 1985). The three most important techniques are the use of hallucinogens, reduction of environmental stimulation, and – its opposite – sensory bombardment and physical strain. The intake of hallucinogens is nowadays the most widely known method of induction due to the popularization of certain psychoactive drugs. Reduction of environmental stimulation is the basic induction technique for meditation. Stimulus deprivation can be self-imposed by shutting off external events and by
inner-directed concentration. In other instances physical isolation and loneliness are important factors in bringing on an ASC. Over-stimulation also can take different forms. Sometimes light but rhythmic stimulation leads to the desired effect; sometimes a bombardment with varying stimuli (clapping, dancing, singing) is used. Physical exertion leading to exhaustion, hunger and thirst, and sometimes even self-mutilation are applied to facilitate the onset of ASC.

Characteristics in psychophysiological measures during an ASC experience form the fourth criterion for identification. Numerous studies have been conducted with practitioners of yoga and meditation. An abundance of high-amplitude alpha waves (8–12 Hz.) in the EEG was reported. For example, Anand, Chhina and Singh (1961) found with two yogis that their alpha activity could not be blocked by external stimulation. They could keep their hands submerged in ice-cold water for three-quarters of an hour and still show persistent alpha activity with high amplitude. Kasamatsu and Hirai (1966) observed onset of alpha activity within 50 seconds after the beginning of Zen meditation in their sample of forty-eight Buddhist priests and trainees. This happened despite the fact that the subjects were meditating with their eyes open, while, normally, abundant alpha waves can only be recorded when subjects have their eyes closed. Generally, these earlier findings have been confirmed, extending them into the lower-frequency band of theta waves (4–8 Hz.). Moreover, other psychophysiological methods using event-related brain potential (ERPs) and neuroimagining (e.g., fMRI) have been used to identify consistent differences between meditation and non-meditation. The search for culture-related factors in this more recent research has been negligible (Cahn and Polich, 2006).

ASC is a widespread phenomenon. From a survey, Bourguignon and Evascu (1977) concluded that some institutionalized form of ASC could be identified in most societies. Institutionalization implies a religious, medical or other social function and presupposes certain specified conditions and actors (e.g., medicine men or shamans).

An important question concerning ASC is whether there are differences in incidence and in the type of ASC found in a society that can be explained in terms of cultural variables. Bourguignon (1976, 1979) attaches importance to a distinction between trance or visionary trance and possession trance. A person in trance may be experiencing hallucinations. Quite often these take the form of an interaction with spirits, whereby the spirit or soul of the person in trance may even have left the body and gone somewhere else. The experience must be remembered in order to pass it on to others (for example, clients seeking advice from the spirits), or to use it for curing purposes. The possessed, in contrast, becomes another being, namely the spirit that has taken over the body. The possessed often will not remember what happened during the episode of possession; others will have to be present to hear what the spirits are communicating. Bourguignon sees trance as an
experience and possession as a performance that requires an audience. Possession is usually brought on by drumming and dancing, trance by fasting, sensory deprivation and drugs.

Bourguignon has found certain regularities between the type of ASC, that is, trance or trance possession, and cultural variables. Although there are many exceptions, trance is more typical of men and possession of women. Among hunter-gatherers trance is more common; in more complex societies possession is the more frequently occurring form. There are also differences between major cultural regions. Among the original inhabitants of America the use of psychoactive plants leading to trance is widely practiced. In Africa possession is more frequent. A number of explanations have been suggested for these variations. For example, the inferior position of women among agriculturalists has been mentioned as a possible cause for the higher frequency of possession trance. ASC would then be used for self-serving purposes, making the spirits express the wishes of the possessed. The manipulation of social control and political power by shamans and priests has been mentioned by several authors (e.g., Dobkin de Rios, 1989).

The effect of cultural variables has also been discussed by Wallace (1959). There are quite remarkable differences between North American Indians using peyote for religious rituals and European Americans using it in a recreational context. The Indians reported feelings of reverence and relief from physical ailments. Among European Americans the drug had a wide range of effects on mood, from agitated depression to euphoria. They showed a breakdown in social inhibitions – a shift in behavior not observed in the Indians. The European American subjects had all manner of experiences and the changes in perception were threatening to them. The Indians reported visions that were in accordance with their religious beliefs and which fitted their expectations about what would happen. Apparently, cultural expectations and knowledge are important determinants of subjective (experiential) and objective (observable) aspects of behavior (see also Ludwig, 1969; Peters and Price-Williams, 1983).

There has been a tendency to argue that the varied ASCs described in the literature are expressions of the same underlying processes. This point has been made by Peters and Price-Williams (1983) from a phenomenological perspective. In their opinion a search for meaning and insight is fundamental to all the different cultural manifestations of ASC. A somatic basis for the unity of altered states exists according to some authors in common neurophysiological phenomena, proclaimed as the fourth criterion for ASC. At the same time, there are authors who continue to argue that the essence of ASC lies in the unique experiences during hallucination, possession or mediation. Such uniqueness requires the use of qualitative, subjective methods (e.g., Prakash, Ul Haq, Prakash, Sarkhel and Kumar, 2009).
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REFERENCES


