

Hallucinations

By Yee Jee Tso

Some, if not all of us, on some level, question the universality of what we perceive, and many efforts are made to “see beyond”. Our world is a reality based on matter and light. The colours, shapes, sizes, details, depths, and contrasts that we see are functions of the information received by the optical structures of our eyes and the translation of that information by various cortical regions of our brains. This translation provides us with a practical perception of our environment, enabling us to function in, and integrate with, the world around us.

Through various meditative techniques, sleep deprivation and exhaustion, or the use of hallucinogenic substances, we have been able to induce altered states of consciousness which produce thoughts, visions, and ideas previously accessible only by schizophrenics or those otherwise chemically imbalanced. We call these perceptions “hallucinations.” Derived from the Latin verb *alucinari*, “to wander in mind”. The word hallucination is defined by various sources as: “a false perception with a compelling sense of reality that is not under the direct and voluntary control of the observer, and which occurs in the absence of appropriate external stimuli”.

What is the nature and the biochemical cause of these phenomena? Do they share common characteristics? Are they simply the delusions of madmen, or are they part of an intrinsic, though alternate form of human perception that provides pertinent information about our environment and an objective reality beyond normal recognition? Although hallucinations can occur via any of the five senses, the most commonly experienced are those based on the visual sense. Given the purely subjective nature of these experiences, it is surprising to find an innate commonality in the types of visuals that occur, regardless of the method used to reach the altered state or the discriminating characteristics of the subject. These visuals can include:

1. The deformation of objects;
 2. Flashing lights and colours, or a magnification of light and colour that brings surface detail, perceived beauty and visual harmony to clearer relief;
 3. The appearance of abstract forms and patterns such as latticework, checkerboard designs, or cobweb designs
 4. The appearance of literal forms such as people, animals or landscapes;
 5. The appearance of archetypal images such as religious figures, and
 6. Moving arrangements of geometrical shapes and patterns, which can form unique visual imagery such as mandalas.
- From those complex and seemingly random patterns, there

often emerges what Jungian analysts have referred to as universal motifs of such basic philosophical dilemmas as birth and death, heaven and hell, and good vs. evil.

Altered states of consciousness are also accompanied by similar neurological indications. It is not possible, at this time, to pinpoint exact causal relationships between neurotransmitter activity and changes in perception. However, it is the general consensus that changes in the activity of the neurotransmitters serotonin (5-hydroxytryptamine) and dopamine are responsible, at least in part, for the occurrence of hallucinations. The chemical structures of many hallucinogenic substances closely resemble that of serotonin and/or dopamine and therefore have an affinity for their respective receptor sites. Transcendental meditation has been proven to affect these same neurological pathways in similar fashion. Furthermore, these changes are analogous to the biochemical anomalies that affect the sufferers of certain mental illnesses.

While it is possible to conclude that all hallucinations are the delusions of those who have abnormal brain chemistry as a result of disease, reckless experimentation with mind-bending chemicals, or an obsession with meditation, this would be a severe judgement and hasty generalization. The possibility that hallucinations do have some validity and relevance to human society is worth consideration.

The experience of hallucinations has long been considered by so-called “primitive” societies and ancient cultures to be an indication of spiritual enlightenment. Indeed religious and philosophical belief systems have been spawned from the visions and ideas conceptualized in altered states by masters of meditative techniques. New fields of scientific study and new genres of literature, art, and music have been pioneered by those experimenting with hallucinogens, such as: Aldous Huxley, Timothy Leary, and Albert Hoffman. Even if we completely deny the validity and pertinence of their works, there is no doubt that the existence of their concepts and ideas has had a major influence on our society, and are therefore impossible to ignore.

Furthermore, quantum physics proposes that the perspective of the observer profoundly affects the nature and fabric of our objective reality. This presents us with an interesting dilemma when the perspective of the observer is from an altered state of consciousness.

It is important to note that the ideas presented in this article are, in no way, meant to suggest that the induction of an altered state of consciousness leading to hallucination is safe or desirable. However, while it is apparent that the topic of hallucinations is open to debate, it is surely worthy of further study.