Pseudoscience: Color Therapy

Adán Rivas
Massachusetts Academy of Mathematics and Science

Simplicity is a concept man struggles to attain and use. Most live by the philosophy of answering questions in its simplest form when there is no need to overcomplicate or over think problems. Occam's razor encourages people to consider minimal assumptions to explain phenomena, yet in certain circumstances the simplest solution is not always the best explanation (Clark, n.d.). Occam's razor, nevertheless, is commonly applied in science to choose the most reasonable theory. The reasoning behind the concept is that simple explanations are likely to be based on fact, which is most likely to be attained through the senses. When an individual expands further in unknown assumptions, he or she begins to bridge into pseudoscience.

Studies have shown that colors do indeed impact person's mood. Colors of a given range (the prime colors) have a universal meaning: shades of red are commonly referred as warm colors because they generate feelings of comfort. Colors on the blue spectrum help bring calamity to a setting, but they can also trigger sadness or indifference (Cherry, n.d.). Color therapy (or chromotherapy) tries to harness the vibrational energies in people to heal and cure illnesses; therefore, chromotherapy is defined as a so-called vibrational medicine. But these energies are not fully defined in the medical field. A color therapist applies light and color in the form of tools, visuals, or verbal suggestions to balance out the alleged vibrational energy in given parts of the body that are lacking vibrancy, whether it be a physical, spiritual, or mental ailment ("Chromotherapy", n.d.). Implements include elaborate gemstones, wax candles, glass prisms, and infrared lasers (Desy, n.d.). According to proponents, color therapists have a respected place in alternative medicine; their works is seen as a holistic approach to curing ailments. Color therapy is seen by certain people as a method to restore balance in the body, mind, and spirit. Color theorists (researchers) attempt to uncover the true psychological influences (without regard to *qi*) of color, other than just merely a visual pleasure. The work of Faber Birren has help to expand the color theory; the Birren color theory argues that color is a common tool of expression, communication, and self-identification (Reeser, 2009). Birren links human perception of color with emotions produced by color, using connation of color by other senses as support. Birren donated his collection of work on the color theory to Yale University's Art and Architecture Library in the 1970s. Under Gardner's (1952) paradigm of a hermit scientist Birren would not fit the description mainly because his studies have made a contribution in psychology. Birren's works has been used a resource for other scientific research projects carried out on the effects of color.

There is evidence indicating that colors and lights impact mood but these tend to only be temporal. From a scientific standpoint it seems ineffective to use colors to treat long-term problems, especially those of physical health. The main focus of light and color treatment is to control the energies in the human body, but there is no concrete evidence indicating that such energies exist. These energies happen to be based on the concept *qi*: an ancient Chinese belief stating that a universal energy flows in all living organisms. Spiritual powers and their influences

have yet to be proven; therefore, color therapy extends largely beyond fact. A simpler explanation of the power of colors would be one that adheres closely with the senses.

The the effect of color on humans could simply be a mere reaction to the environment. And once a person has adjusted to the surroundings, the feelings given by the color disseminates. Some colors are more appealing than others, this distraction or attention to detail helps to remove a patient from their problems momentarily. Such an attraction acts as a stimulant which would invoke a positive mood. Colors and light have a complimentary perception because without them life would be dull; an individual's favorite color is rarely ever white, grey, or black. Color therapy echoes positive emotions like fireworks or some other light show. Humans are fascinated by and drawn to light which has led to need of lighting devices. Physiological conditions that undergo color therapy are typically minor in comparison to serious ailments which would require the attention of more scientifically sound methods. Recovery of the impairment supposedly done by color therapy could have been a coincidence; the human body has an extraordinary ability to recover from injuries, and time is what is needed for the body to recover from minor injuries.

Color is actually light waves that are either reflected or absorbed. It appears that color therapy happens to have stemmed from light therapy, which is medically and scientifically sound. Ultimately, until *qi* energies are found to exist in the human body color therapy cannot be fully accepted as a legitimate alternative medicine. Yet research can be administered on the psychological and physiological effects of color rather than as a medical treatment. There is evidence that indicates that color does indeed affect bodily functions like increase in heart rate or appetite, but nothing has shown that subjection to color stimulates muscle repair or anything along those lines. Until the focus of color therapy (balancing *qi* energies) shifts, color therapy will remain a pseudoscience, for it seems impractical to quantify and discern a force outside of human perception.

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