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PSY 379: Visual Arts Paper

October 4, 2020



- Pink Volcanoes
- Clarence Holbrook Carter
- 22 x 29.75 inches

Seeing Pink Volcanoes

How does this piece of art make you feel? How do the different shades of red, yellow, and orange in the painting make you feel? And what does that mean for the piece of art you are observing? Do we perceive the art the way it really is externally or the way we internally want it to be? This question is often posed in the history of visual perception even though the internal domains may change and affect our perception differently. For example, does religious affiliations change the way we perceive the viewing of the external world? Does open-mindedness in religious individuals change the way we view objects from other cultures and religions (Lo Sciuto & Hartley, 1963)? Does our culture impact the way we see colors? For example, Americans may be conditioned to associating the color orange with Halloween and thus, spooky and gloomy themes as well as to crime because the American prison system requires prisoners to wear orange jumpsuits. Contrarily, a lot of Eastern cultures may associate orange with spirituality due to the most commonly used flower in festivals being marigold.

Pink Volcanoes by Clarence Holbrook Carter primarily uses colors that range between red, yellow, and orange. On an individual level, perception of the art may vary due to individual differences that play a role in visual perception of color. Levitan et al. (2020) studied a group of people to examine if one's color preferences are predicted by their preferences for specific objects and found that their results were consistent with prior work of Schloss, Hawthorne-Madell, & Palmer (2015) who demonstrated that color preferences are better predicted by one's own individual object preferences than by other people's object preferences. Here, for our Pink Volcanoes artwork, the colors may be interpreted differently based on the culture the individual is from and the availability of objects of similar colors in their respective environment. Ou et al.

(2004) built on this research on color perception and examined the important role colors play in individual's decisions of what they like and dislike. They studied color emotions, that they classified as, "the feelings evoked by either colors or color combinations" (Ou et al., 2004). Could there be a correlation between color emotion and color preferences? Their sample consisted of both male, female as well as British, and Chinese participants to study cultural differences between the two. Furthermore, they developed a color emotion space based on 10 color-emotion scales and then, the culturally-dependent color emotion scales into three factors namely : color activity (which included active-passive, fresh-stale, clean-dirty, modern-classical scales), color weight (which included hard-soft, masculine-feminine, heavy-light scales), and color heat (which included warm-cool scales for the artwork). The researchers found like-dislike and tense-relaxed color-emotion scales were dependent on culture and Chinese observers preferred colors that were clean, fresh, or modern while this pattern was not seen in the British sample. Similarly, British observers tended to associate tense to active colors while Chinese observers associated tense with colors that were hard, heavy, masculine, or dirty. Additionally, four color emotions, warm-cool, heavy-light, active-passive, and hard-soft were culture independent across western (Britain) and eastern (China, Japan, Thailand, and Hong Kong) cultures. Therefore, as we perceive Pink Volcanoes, we would predict people from China viewing the art to have a preference for it if they perceived the gradual color scheme in the painting as clean and fresh compared to people from Britain viewing the same piece of art. Levitan et al. (2020) also demonstrated that one's own art preferences are strongly correlated with their own object preferences. Additionally, they found that at individual levels, the single most strongly associated object depicted in the painting was not as good of a predictor for painting preferences as the weighted average of all the objects in the painting. So, an individual's

preference for Pink Volcanoes may not actually be related to their preference or lack thereof, of volcanoes; preference for the art is more strongly correlated to the whole piece rather than the most strongly associated object in it (volcanoes). Familiarity with the specific painting also plays a role in our perception of it and it was found that individuals rated paintings higher if they were familiar with it compared to when they were not (Levitan et al., 2020). Thus, individuals who viewed Pink Volcanoes previously are more likely to rate their liking of the painting higher than individuals who viewed it for the first time.

While looking at a painting, visual perception depends not only on color but also on several other attributes of the art that we are required to perceive. For example, a study found that people respond differently to the different structural attributes of a line, where they assigned negative traits to angular lines and positive traits to curved ones (Guthrie & Wiener, 1966). They reported that structural cues such as lines are the first information available to an individual when exposed to a pictorial stimulus. However, these cues can vary in terms of amount as well as in the kind of attributes such as its angularity. They concluded by saying that individuals are capable of characterizing positive or negative attributes to these cues whether they occur subliminally (“an automatic process that can discriminate or ‘know’ the threatening or need-related stimulus and inhibits or facilitates recognition even though the individual is unaware of the stimulus”) or supraliminally (the individual is aware of the stimulus and its meaning). Therefore, on connecting this aspect of visual perception back to Pink Volcanoes, we find that individuals may be more likely to view this painting as positive, especially the curved-rounded balloons of lava flowing out of the peaks. Volcanic lava is hot and dangerous, which would generally be assumed to elicit negative emotions; however, this painting depicts that same lava in a more soft and gentle way by portraying them as balloons of gas rather than hot molten semi-

fluid rock. Here, even though we, as observers of the painting know the meaning of the stimulus (lava) as they are occurring supraliminal, we are still aligned to draw parallels between the curved lines and positive traits without focusing on the semantics of the stimuli. Contrarily, in the 1984 Republican convention, the interior designer described his work as “there are no square angles anywhere. Look at the chair: round top, curved legs. Look at the edge of the podium: no sharp corners. They're all rounded. Look at the lectern: curves everywhere” (Smith, 1988) in order to convey a soothing presence to the podium backdrop, which would occur subliminally. Aronoff et al. (1992) found that these structural cues are also present in recognizing facial expressions and reported that, a small set of geometric information such as higher roundedness or decreased linearity, angularity, and diagonality in visual information elicited a meaning of positivity or warmth in the perception of the visual. Therefore again, supporting the likelihood of individuals judging Pink Volcanoes in a more positive light due to its higher number of curved and rounded lines compared to its angular attributes. Leder & Carbon (2005) replicated these patterns of preferences of curved lines as well as familiarity in comparison to angularity and unfamiliarity, in ratings of attractiveness of car interior designs. They found that curved and less innovative (familiar) designs were rated to be more attractive compared to unusual straight designs which were also seen as being innovative. This difference between curved and straight lines, in terms of attractiveness, was even more stark for individuals who had a higher interest in art, as they were more sensitive to differences in curvature and found straight designs less attractive than did non-experts of art. Which helps us add another perspective of viewing Pink Volcanoes and makes it more likely for students majoring in Art or experts of Art to view the piece as more positive than non-Art majors or non-experts, even though both groups would still be inclined to seeing the piece as positive due to its higher content of curvature.

To further explain this pattern, Bar & Neta (2006) laid out an evolutionary standpoint for understanding this preference, as humans may have evolved to prefer objects that promote safety and fear objects that seem threatening (eg: sharp objects like knives convey feelings of threat compared). Bar (2003) stated that humans may be giving a higher priority to processing threat-specific physical attributes due to an evolution, by “using rapidly available low-level sensory information” as the human cortex may have developed to detect such features of threat quicker. This also connects to the possibility of reduced activity for familiar objects due to “repetitive suppression” caused by the preservation of a vague memory from top-down processing (which means high-level information is activated earlier than some relevant lower-level information) which thus, gives us quick access to the most likely representation of the object, which over the years through evolution has made curved objects to most likely represent “warmth” and angularity to most likely represent threat. Thus, even though volcanoes can be represented as threatening, this painting and the objects in it have stronger associations with the effects of contour (or curvedness) and dominant preferences, which eventually override the effects of strong associations with the other type of information (eg: semantic associations to threat) present in the painting.

People assume that they perceive the world as it really is. However, sometimes external features of the world (or art) may be undermined by our internal preferences, such as color preferences and social attributes, like the impact of our culture on our perception of the world (or art). As per prior work and this review, patterns of preference of curvature over angularity, familiarity over unfamiliarity, as well as individual differences like cultural differences in the perception of pictorial stimulus such as art is continuously replicated and must be considered when studying visual perception in future psychological research.

References

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Seeing Pink Volcanoes:

In this strangely calming sight, we see molten hot lava in the perception of gentle and perfectly curved out in the mold of soothing ovoid afloat across the relaxed, soft gradual ombre of the orange sky. Kudos to evolution for here, the threat of the volcanoes is destroyed by the contours of the lava, the mountains, the evening landscape. The magic lives in curves, not angles!