

This is an excerpt from a report on the Perceptual Learning and Perceptual Recognition Workshop at the University of York in March of 2012, written by Kevin Connolly, Dylan Bianchi, Craig French, Lana Kuhle, and Andy MacGregor, and available at http://networksensoryresearch.utoronto.ca/Events_%26_Discussion.html

2. Can Perceptual Experience Be Modified by Reason?

Is visual experience cognitively penetrable by belief? In their workshop presentation, Kati Farkas and David Bitter acknowledged the influence of prior associations. For example, Delk and Fillenbaum (1965) demonstrated that when subjects are asked to adjust the color of *heart-shaped* cutouts against a grey background they tend to make them redder than when they are assigned the same task with a culturally meaningless shape such as a circle. Farkas and Bitter wanted to know if a *belief*—namely that hearts are red—is responsible for this effect.

Call perceptual experience “cognitively penetrable” just if the phenomenal character of perceptual experience can be altered by higher-level cognitive states (for example, beliefs) in a way that is influenced by the content of the state. Farkas and Bitter doubt that cognitive penetration is at play in the above example. Through perceptual learning (or, as they also put it, “repeated perceptual exposure”) subjects acquire a disposition. The disposition is then responsible for a perceptual effect (in the above case, the effect being that subjects see orange shapes as more red in certain conditions). Farkas and Bitter have no problem with the idea that the effect was genuinely experiential. But they ask: what mental state underlies or constitutes the disposition in the cases? Is it an association or a belief?

The disposition in the color cases is stubborn, that is, difficult to lose. Even if one comes to believe that in a particular country love-hearts are typically green, and *not* typically red, one would nonetheless retain the disposition that causes one to see love-hearts as more red than they

are. Farkas and Bitter suggested that losing the disposition is likely to require nothing short of perceptual re-training—a very different kind of process from belief-adjustment. They argue that *belief* is revised in the face of conflicting information and counter-evidence, i.e., through rational persuasion. By contrast, expectations formed by association are *extinguished* by repeated exposure to perceptions that run counter to the expectation. Farkas and Bitter invoke Tamar Szabo Gendler's (2008) notion of an "alief" here. On Gendler's account, aliefs have behavioral and experiential effects similar to beliefs, but are *not* sensitive to rational persuasion.

Macpherson replied to Farkas and Bitter by arguing that we should distinguish between different belief accounts of the relevant disposition. One view, which we can grant is false, is that the disposition is constituted by just the belief that love-hearts are (typically) red. But another view, which isn't shown to be false by Farkas and Bitter's line of thought, is that the disposition is constituted by a *cluster* of beliefs, all pertaining to love-hearts and redness (e.g., which includes, in the normal case, the belief that *love-hearts are typically red*, *the love-hearts I've seen have been red*, *I remember experiencing red hearts*, and so on). Losing a part of the cluster doesn't necessarily bring about loss of the cluster. Belief clusters may be more stubborn than single beliefs.

The dispute between Farkas and Bitter on one side and Macpherson on the other is, thus, *not* about whether acquired dispositions can affect perceptual experience, but rather about whether rational inference can affect perceptual experience.

References:

- Delk, J.L. and Fillenbaum, S. (1965). "Differences in Perceived Colour as a Function of Characteristic Color," *The American Journal of Psychology*, 78 (2): 290–93.
- Gendler, Tamar Szabo (2008). "Alief and Belief." *Journal of Philosophy*, 105 (10): 634–63.