

Empirical aesthetics and aesthetic experimentalism: towards a productive rapprochement between the philosophy of art and cognitive neuroscience

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Current research in the cognitive neuroscience of visual art lies at the confluence of two broad research strategies: empirical aesthetics and aesthetic experimentalism (Rollins, 2004). The central claim of empirical aesthetics is that the methods of psychology and related fields can be used to enhance our understanding of the nature of art and associated behavior. Aesthetic experimentalism is derived from the observation that artists' productive strategies emerge from systematic explorations of the perceptual effects of different sets of medium specific formal cues (Gombrich, 1960). Aesthetic experimentalism is that we can learn about the operations of perceptual systems by examining the productive strategies of artists (e.g. the way visual artists develop and use formal techniques to convey information in their works). The conjunction of these two research strategies suggest that the relationship between the philosophy of art and cognitive neuroscience is a two way street. This claim is most often made in regards to the visual arts, and canonically for the works of naturalist painters who aim for realistic depictions of landscapes, events, and people (Cavanaugh, 2005; Zeki, 1999). However, in these cases artworks are most often used to illustrate the contributions of underlying neurophysiological mechanisms to perception, not as stimuli in experiments. In this paper I examine two domains in which artworks are actively used as stimuli for experimental investigations in cognitive neuroscience: the use of dance in studies of expertise, perception, and action (Calvo-Merino et al, 2005; Calvo-Merino et al, 2006; Cross et al, 2006; Cross et al, 2009; Urgesi et al, 2007) and the use of Hollywood films to study the degree to which perceptual responses to ordinary events are synchronized across agents in natural contexts (Hasson et al 2008; Hasson et al, 2004; Jaaskelainen et al 2009). I argue that these case studies demonstrate the potential for a genuine rapprochement between philosophy and neuroscience in the study of art and cognition.