



Comment

Variability and situatedness of human emotions
Comment on “The quartet theory of human emotions: An integrative
and neurofunctional model” by S. Koelsch et al.

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We commend Koelsch and colleagues [14] for developing a broad and integrative explanation of the neurobiological foundations of emotions. We especially welcome this framework’s emphasis on the interaction between language and emotion, and its focus on the characteristically human moral emotions. Emotions elicited by art and aesthetics also seem to be distinctively human, but comparatively little research has been devoted to understanding these. This is probably because they are usually viewed as atypical in several respects. William James [12], for instance, regarded emotional responses to artworks and aesthetic qualities as *subtler emotions*, because they lacked the strong bodily changes and adaptive value characteristic of *coarser emotions*, such as joy, anger, or fear. This view is still predominant today, and *aesthetic emotions* are often distinguished from *everyday emotions* [13]. However, the notion of a class of aesthetic emotions, separate from everyday emotions, rests on the questionable assumption that artistic and aesthetic experiences and activities are different in essence from everyday experiences and activities. The discontinuity between “aesthetic experience [and] normal processes of living” [9, p. 10], however, is the product of social and cultural developments in Europe during the 18th century [7,15,20]. Distinctions that oppose art to craft, or aesthetic to practical, in reference to objects, behaviors, experiences, and emotions, make little sense in a broader historic and geographic context [1,7,20], and hinder empirical research [7].

Emotions in response to art and aesthetic qualities are fundamentally variable and situated. Research has shown that they are profoundly shaped by cultural practices and beliefs [1], they vary substantially between and within individuals [11,21], and they are highly susceptible to semantic framing [10] and context [4,5]. Psychological constructionist models of emotion [3,19] adequately account for these findings. From this perspective, people experience emotions in response to artworks and aesthetic features when, using knowledge stored from past experience, they assign meaning to their inner states, both sensory (related to the perception of the artistic or aesthetic object) and affective (especially their bodily sensations of pleasure–displeasure and arousal). Situational or contextual features contribute to give meaning—commonly of personal, societal or cultural relevance—to these states. The construction of these emotional experiences relies on domain-general psychological processes, which are not specific to any cat-

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egory of emotions, or even to emotions themselves [3]. There is nothing unique about emotions elicited by art and aesthetics, except that they are constructed from culturally-specific artistic or aesthetic meanings, concepts, and prescriptions, and often in specific places (e.g. museums) or situations (e.g. ceremonies). Thus, emotions in response to art and aesthetics—human emotions in general—are situated, owing to the crucial role of context in their origination, and variable, owing to the myriad possible combinations of the components intervening in their construction. At a neurobiological level, there seems to be no specific core (or a dedicated neural circuitry) for each particular class of emotions [2]. In fact, recent approaches suggest that cognition emerges from dynamic configurations of transient functional connections among distributed brain regions, and across multiple temporal scales [6,18].

This view accounts for the variability and contextual permeability of the experience of art and aesthetics [4,5], as well as its constitution from primitives that are common to other psychological domains [17], and emergence from activity across neural networks [8,22]. This sort of approach, however, differs in several respects from Koelsch and colleagues' [14]. From the constructionist perspective, for instance, the role of language in emotion is not restricted to communication and regulation. Constructionists regard emotion words and concepts as crucial elements in the genesis of emotions [3]. But most importantly, the view sketched in this commentary seems to be at odds with the locationism implied by the postulated correspondences between brain regions and emotional qualities [16]. If Koelsch and colleagues' [14] framework is to explain the vast range of human emotions—including those in response to art and aesthetics—it needs to account for their huge inherent variability and situatedness.

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