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### Comment

# Musical scaffolding and the pleasure of sad music Comment on "An integrative review of the enjoyment of sadness associated with music" by Tuomas Eerola et al.

## Joel Krueger

University of Exeter, United Kingdom Received 20 January 2018; accepted 22 January 2018

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Why is listening to sad music pleasurable? Eerola et al. convincingly argue that we should adopt an integrative framework—encompassing biological, psycho-social, and cultural levels of explanation—to answer this question. I agree. The authors have done a great service in providing the outline of such an integrative account. But in their otherwise rich discussion of the psycho-social level of engagements with sad music, they say little about the phenomenology of such experiences—including features that may help shed further light on this question. I suggest that emerging enactive perspectives on music and emotion can offer some useful resources [1–5].

Enactive approaches to cognition argue that many cognitive processes are not just in the head but also involve bodily and environmental factors [6]. For example, perceptual experience is constituted not just by neural processes but also bodily processes (e.g., movements of the eyes and head; focusing and refocusing attention; reaching, grabbing, manipulating, etc.) that support our skillful engagements with the world [7]. Similarly, remembering is sometimes distributed across heterogeneous systems involving a mixture of bodily, social, and technological resources [8]. From an enactive perspective, we "off-load" part of these and other cognitive process onto external resources; the latter acts as scaffolding that helps us improve our performance, minimize computational effort, and achieve otherwise-inaccessible cognitive feats [9].

In enactive circles, some have recently argued that music can play a similar scaffolding function—including scaffolding self-regulative processes (neurophysiological, behavioral, phenomenological) constitutive of emotional consciousness [10-13]. For these approaches, instruments and portable listening technologies are on-demand resources that afford offloading. When we engage with these artifacts, we enact self-stimulating feedback loops in which they take over and govern various processes responsible for the development and control of emotions in that context [2]. Additionally, due to the unique expressive properties music brings to this encounter—for instance, increased complexity, temporal range, subtlety, and force, in contrast to non-musical expressions of emotion [14]—we can, enactivists argue, temporarily access enhanced regulatory and emotional capacities that might otherwise elude us.

How does this relate to the pleasure of listening to sad music? A central phenomenological feature of our musicallyscaffolded listening practices, I suggest—one not considered directly by Eerola et al.—is the experience of letting go

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when we listen to music in a sensitive and immersive way, such as when we use music to enrich or work through our sadness. In these heightened cases of musical engagement—what I've elsewhere referred to as "deep listening" [1,15], and what Gabrielsson terms "strong experiences with music" [16]—we feel as though we are experientially consumed by, or somehow taken up into, the musical soundworld unfolding around us. More specifically, this "letting go" character involves a felt sense of both diminished *agency* and *self-regulative control* as we allow musical dynamics to scaffold the diachronic articulation of our emotion from one moment to the next, much the way that a highly-skilled dance partner guides the shape and flow of our movements when we let them. This "letting go" feature is a central reason why we find immersive musical experiences so pleasurable, and even cathartic [17]. In virtue of its distinctive expressive properties—along with its multimodal impact on our emotion system, ably chronicled by Eerola et al.—music seems uniquely equipped to assume this scaffolding function.

These phenomenological and enactive observations are compatible with Eerola et al.'s helpful notion of music as "social surrogacy", or the idea that music may act as a kind of virtual persona providing comfort and consolation by signaling a mood-congruent other. But they also suggest that our musical engagements involve more than just simulation—the "core mechanism" at the heart of Eerola et al.'s account [18]. Music does more than merely *simulate* sadness; it *scaffolds* it. From an enactive perspective, it is material for quite literally constructing our sadness, a vehicle by which we work through and explore its qualitative and temporal character. And part of the pleasure of this experience comes from letting music do much of this work on our behalf. These observations provide additional phenomenological data that must be accounted for when putting together the integrative account Eerola et al. rightly advocate.

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