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Menninghaus, Winfried; Schindler, Ines ; Wagner, Valentin; Wassiliwizky, Eugen ; Hanich, Julian; Jacobsen, Thomas; Koelsch, Stefan

Published in:
 Psychological Review

DOI:
[10.1037/rev0000213](https://doi.org/10.1037/rev0000213)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
 Publisher's PDF, also known as Version of record

Publication date:
 2020

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Menninghaus, W., Schindler, I., Wagner, V., Wassiliwizky, E., Hanich, J., Jacobsen, T., & Koelsch, S. (2020). Aesthetic emotions are a key factor in aesthetic evaluation: Reply to Skov and Nadal. *Psychological Review*, 127(4), 650–654. <https://doi.org/10.1037/rev0000213>

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REPLY

Aesthetic Emotions Are a Key Factor in Aesthetic Evaluation:
Reply to Skov and Nadal (2020)

Winfried Menninghaus and Ines Schindler
Max Planck Institute for Empirical Aesthetics, Frankfurt am
Main, Germany

Valentin Wagner
Max Planck Institute for Empirical Aesthetics, Frankfurt am
Main, Germany, and Helmut Schmidt University/University of
the Federal Armed Forces Hamburg

Eugen Wassiliwizky
Max Planck Institute for Empirical Aesthetics, Frankfurt am
Main, Germany

Julian Hanich
University of Groningen

Thomas Jacobsen
Helmut Schmidt University/University of the Federal Armed
Forces Hamburg

Stefan Koelsch
University of Bergen

Our theoretical model (Menninghaus et al., 2019) defines aesthetic emotions by reference to their role in aesthetic evaluation, and specifically as being predictive of aesthetic liking/disliking. Skov and Nadal (2020) dismiss the construct of “aesthetic emotions” as a “dated supposition” adopted from a “speculative” tradition and assert that there are no such emotions. Accordingly, they question all pieces of empirical evidence we referred to as supporting our model. In our response, we rebut these objections point by point and defend as well as expand the empirical evidence in support of our model.

Keywords: aesthetic emotions, aesthetic evaluation/appreciation, liking, beauty, being moved








The psychology of emotions distinguishes various subgroups of emotions dependent on their special evaluative focus, such as “self-conscious,” “social,” and “moral emotions.” Our definition of “aesthetic emotions” is a full-blown analogue to the largely uncontroversial understanding of moral emotions. From Kant (1788/2002) to current psychology (for an overview, see Haidt,

2003), moral emotions—such as moral elevation, admiration, shame, and contempt—are convergently defined as being specialized in evaluating in an intuitive way the moral virtues and vices (i.e., conformity vs. nonconformity with [pro]social values/expectations) involved in human actions and attitudes, and consequently as predicting moral approval/praise versus disapproval/blame.

Analogously, we define aesthetic emotions as intuitive evaluations of various subjectively perceived *aesthetic virtues* or *failures/vices* not just of artworks, but of a great variety of objects, movements, and sounds across nature and culture, and consequently as predictive of overall *aesthetic liking/disliking* (cf. also Fingerhut & Prinz, 2020). In the following, we discuss Skov and Nadal’s (2020) critique of this definition point by point.

Are Aesthetic Emotions “Everyday Emotions” or “Everyday Emotions in a Different Presentation” or Wholly “Distinct Emotions”?

Our basic definition implies (a) that aesthetic emotions are not domain-specific, for instance, limited to responses to artworks. Rather, being struck by the beauty of a person passing by or being delighted by the beautiful light flooding through a street are just two of many cases in which aesthetic emotions are experienced in everyday contexts.

 Winfried Menninghaus and  Ines Schindler, Department of Language and Literature, Max Planck Institute for Empirical Aesthetics, Frankfurt am Main, Germany;  Valentin Wagner, Department of Language and Literature, Max Planck Institute for Empirical Aesthetics, and Experimental Psychology Unit, Helmut Schmidt University/University of the Federal Armed Forces Hamburg;  Eugen Wassiliwizky, Department of Language and Literature, Max Planck Institute for Empirical Aesthetics;  Julian Hanich, Department of Arts, Culture and Media, University of Groningen;  Thomas Jacobsen, Experimental Psychology Unit, Helmut Schmidt University/University of the Federal Armed Forces Hamburg;  Stefan Koelsch, Department of Biological and Medical Psychology, University of Bergen.

Correspondence concerning this article should be addressed to Winfried Menninghaus, Department of Language and Literature, Max Planck Institute for Empirical Aesthetics, Grüneburgweg 14, 60322 Frankfurt am Main, Germany. E-mail: w.m@ae.mpg.de

We also propose that (b), for want of a nuanced special lexicon for aesthetic emotions only, linguistic terms used to designate emotions that in their predominant meaning have no necessary bearing on aesthetic evaluation can acquire such an implication by virtue of a context-driven meaning activation. For instance, *being emotionally moved* by a funeral or a wedding is primarily a (pro)social attachment emotion (Menninghaus et al., 2015); however, if the focus is on the formal choreography (beauty or dignity of songs and speeches, etc.) of the respective social events, then the attribute *moving* includes a dimension of aesthetic appreciation (cf. also Hanich, Wagner, Shah, Jacobsen, & Menninghaus, 2014). Importantly, this dual use of *being moved* readily extends from real to fictional scenarios.

Finally, regardless of applying to real-life, fictional, or other (nonfictional) art contexts, our model of aesthetic emotions states (c) that these emotions must always have a “distinct” focus on aesthetic evaluation.

Skov and Nadal (2020) base their review of our model on the assumption that aesthetic emotions can either (a) be “everyday emotions” or (b) “everyday emotions in a special presentation” (what exactly “special presentation” is supposed to mean is not indicated) or (c) a wholly “distinct class” of emotions. Theoretical or empirical reasons for why these categorizations should be mutually exclusive, and hence a strict trichotomy, are not given. In our view, these improvised alternatives are false alternatives to start with. Projecting our model onto these presumed alternatives and, moreover, identifying our model with the hypothetical third option—rather than viewing it as combining, in a nonparadoxical way, all three aspects—clearly misrepresents both the intentions and the wording of our model and hence does not amount to a meaningful critique.

The Fallacy Leading to the Conclusion That “There Are No Aesthetic Emotions”

Following Scherer (2005), we distinguish cognitive, physiological, expressive, motivational, and subjective feeling components of aesthetic emotions. Skov and Nadal (2020) say little about these individual components but rather focus on a short quote from Scherer’s programmatic article that speaks of “interrelated, synchronized changes” in the sequencing and interactions of the organismic subsystems that underlie these components. Based on this quote, they stipulate that particular emotions can only be taken to be existing species of emotions if distinct synchronization profiles involving all five hypothetical components are provided for them.

Scherer himself has emphasized that individual emotions differ greatly in the extent to which they show a synchronization of some or even all of their components; his later studies (Scherer, 2009a, 2009b) clearly do not endorse Skov and Nadal’s (2020) criterion of existence versus nonexistence of an emotion. For instance, many emotions do not include a pronounced action component, or are only associated with actions that may (or may not) occur long after the emotion episode and hence are not synchronized with the actual experiencing of the emotion. Moreover, even beyond such cases, we are not aware of any study that has actually provided what Skov and Nadal (2020) require from our model of aesthetic emotions: namely, a full-blown temporal response synchronization profile for all five components of an emotion.

Therefore, as of now, Skov and Nadal’s (2020) criterion for the existence of emotions would not just relegate all “aesthetic” or “moral emotions” to nonexistence, but may even lead to the conclusion: “There are no emotions.” Obviously, any criterion that would lead to such a consequence is not a meaningful criterion for psychological research on emotions. Moreover, logically speaking, the absence of empirical evidence for one out of many hypothetical features of an entity by no means amounts to positive conclusive evidence for the nonexistence of this entity. Hence, Skov and Nadal’s (2020) line of argument is a classic logical fallacy.

Aesthetic Emotion Terms Are Conceptual Blends Intuitively Used Across Different Languages

For many emotional responses, languages do not provide a special linguistic designation (Scherer, 1994). Such emotions can be paraphrased using a combination of multiple words. Metaphorical uses of existing terms or, more generally, strategies of “conceptual blending” (Fauconnier & Turner, 2002) are further means to cope with the limits of vocabulary. Conceptual blending selectively integrates diverse conceptual elements into a new composite meaning, thereby bestowing an available lexicalized term with a context-driven new or additional meaning for which there is no special term. The above-referred to dual use of the term *being moved* as a prosocial and an aesthetically evaluative emotion is a classic example for such a conceptual blending. To give just one more recent example, the film *The King’s Speech* (Canning, Sherman, Unwin, & Hooper, 2010) is all about the additional power that a deeply moving oral performance of the declaration of war to Nazi Germany adds to the emotionally moving invocation of shared social bonds and values that are likewise addressed by the underlying written text.

Importantly, from Latin antiquity through today, such blends of emotion terms with additional meanings of aesthetic evaluation are found in all Western languages we know of, and most likely in many other languages. Therefore, regardless of how relatively new the term *aesthetic emotions* is and how odd it may sound, it refers to a phenomenon that has a longstanding linguistic representation in the cultural record. Hence what Kant was the first to address theoretically was clearly not his “speculative” invention.

Empirical evidence supports this view. In an exploratory study, participants were asked to list adjectives of their own choice that they viewed as capturing important aspects of “the aesthetics of literature” (Knoop, Wagner, Jacobsen, & Menninghaus, 2016). Notably, the wording of the task did not imply any reference to potential emotional dimensions of reading literature. Rather, it exclusively directed the attention to “aesthetics.” Still, participants’ responses include a substantial number of adjectives that refer to emotion-eliciting qualities of literary texts, such as *suspenseful*, *riveting*, *touching*, *fascinating*, and *boring*. These free responses provide evidence of how readily individuals conceive of emotional qualities as having an “aesthetically” relevant meaning. For example, if they listed *suspenseful* as a dimension of primary importance for the aesthetics of novels, this implies that eliciting feelings of suspense is considered a positive aesthetic achievement of novels and hence a reason for aesthetically liking them (for this understanding of narrative suspense, see also Carroll, 1996).

Typically, emotion psychology proceeds on the assumption that subjective percepts of emotion that are used in a shared meaning

within a culture and often across cultures are worth considering and analyzing as emotions as long as there is not strong evidence that individuals have erroneously misrepresented their own emotions. Skov and Nadal (2020) have not even tried to present counterevidence of this latter type.

Summing up, our basic definition of aesthetic emotions is well in line with spontaneous everyday language use as investigated with classic “bottom-up” empirical methods. We therefore reject Skov and Nadal’s (2020) wholesale relegation of the contested phenomenon to the sphere of mere philosophical speculation.

Empirical Evidence in Favor of Our Model of Aesthetic Emotions

Under the premises of Skov and Nadal (2020), aesthetic emotions, being nonexistent, should not have the power to predict aesthetic liking, as stipulated by our model. Accordingly, the authors had to invariably question empirical evidence supporting our definition.

Prior to discussing this in detail, we would like to note that the disputed empirical studies were conducted several years before the development of our theoretical model of aesthetic emotions; hence they were not a priori designed to test the model. If they had been, we would indeed have collected additional and more unified measures across these studies. Granted that, we still reject the great majority of Skov and Nadal’s (2020) critical remarks:

The authors note that, in a study on sad film clips (Hanich et al., 2014), liking ratings were not collected. Indeed, we decided not to do so, because all film clips exclusively featured devastating moments in which the respective protagonists learnt about the death of their mother/father, wife/husband, or children. We figured that it would be odd to ask participants how much they “liked” these moments of profound suffering. Instead, we asked participants: “How much would you like to see the entire movie?” This is a legitimate proxy for liking, as individuals tend to discontinue exposure to media products and artworks they do not like, and self-motivated longer viewing times tend to correlate positively with higher liking ratings for a variety of objects (Brieber, Nadal, Leder, & Rosenberg, 2014; Mitschke, Goller, & Leder, 2017; Tschacher et al., 2012). Accordingly, high ratings for being moved by the 100-s film clips correlate strongly with high ratings for “I want to see the entire movie.” Moreover, participants separately rated the degree to which their ratings for being moved implied a positive or a negative overall evaluation of the film as a “well-made film,” with the word *well-made* placing a special focus on an aesthetic virtue dimension and not just on the content. Responses clearly indicate a strong link between high ratings for being moved and positive aesthetic appreciation. Hence, the results do meet the stipulations our model makes for aesthetic emotions.

The second contested case is a neuroscientific study on chills experienced in response to poems (Wassiliwizky, Koelsch, Wagner, Jacobsen, & Menninghaus, 2017). Skov and Nadal (2020) indicate that no expressive component of the emotional responses was measured; in fact, facial electromyography data were recorded. Skov and Nadal (2020) state that each participant listened to only two poems; in fact, each participant listened to five experimenter-selected and three-to-five self-selected poems. Skov and Nadal (2020) claim that, in the absence of collecting the pertinent ratings, the study has no bearing at all on feelings of

being moved and liking. However, the call for participation selectively addressed individuals who reliably experience chills or goosebumps while listening to poems of their own preference—and, moreover, to their favorite recitations of their favorite poems—and who would be willing to bring these very recitations to the lab. Hence high liking of self-selected stimuli was a design feature of the study. Moreover, a previous study had shown that experiencing chills in art/media reception correlates positively with strong feelings of being moved (Wassiliwizky, Wagner, Jacobsen, & Menninghaus, 2015). This supports the conclusion that the self-selected poems were in all likelihood both highly liked and experienced as emotionally moving. Still, we agree with our critics that explicit ratings for both being moved and liking would have made the study a stronger case for our argument.

Referring to an experimental study on sadly and joyfully moving poems (Menninghaus, Wagner, Wassiliwizky, Jacobsen, & Knoop, 2017), Skov and Nadal (2020) deplore that a distinct capacity of the hypothetical aesthetic emotion being moved to predict aesthetic liking is not shown, because the study did “not examine any other emotional component” (p. 12). In fact, joy and sadness ratings were also collected. However, a mediation analysis determining to what extent the effects of sadness and joy on liking ratings are accounted for by being moved was indeed not reported in the study. In Figure 1, we present such an analysis as retroactively performed on the published data. We employed Bayesian structural equation modeling (BSEM) with default settings (diffuse priors, parameter estimates are the median of the posterior parameter distribution; Muthén, 2010) as implemented in Mplus Version 7.4 (Muthén & Muthén, 1998–2015).

The results clearly support the hypothesis advanced in our theoretical article: negative basic emotions make at best “indirect contributions to perceived liking and enjoyment” (Menninghaus et al., 2019, p. 178). Accordingly, as opposed to joy, sadness made no direct, but only an indirect contribution to overall liking via being moved as shown by an estimated indirect effect of 0.32 with a 99% Bayesian credibility interval (CI) ranging from 0.24 to 0.43. (For convergent mediation analyses and results for sadly and joyfully moving films as well as sad music, see Vuoskoski & Eerola, 2017; Wassiliwizky et al., 2015). Hence by virtue of its capacity to integrate dimensions of sadness and joy into an overall positive blend, being moved even redeems the emotional powers of sadness

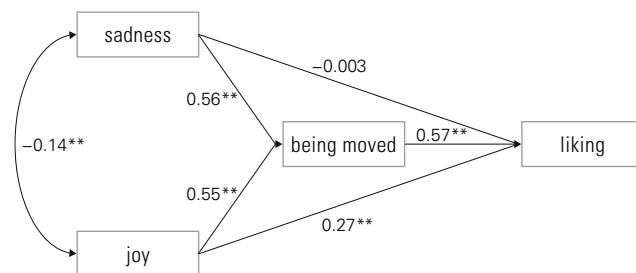


Figure 1. Mediation analysis of ratings collected in a study on moving poems (20 sad and 20 joyful poems; $N = 80$; ages 18–67; four poems per person; for details see Menninghaus et al., 2017). A cross-classified multilevel mediation analysis (with participants and poems as respective Level 2 units) was computed based on the standardized variable scores. Only the within effects (Level 1) are reported. ** Zero not included in 99% CI.

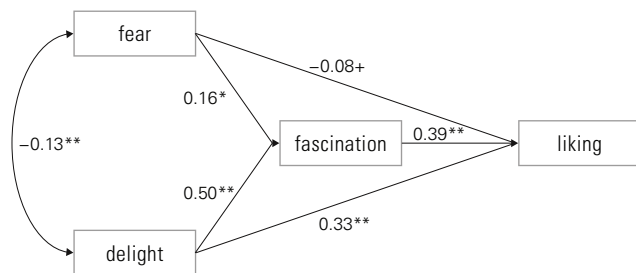


Figure 2. Mediation analysis of emotion ratings (single items: *scared me*, *delighted me*, *fascinated me*, and *liked it*) collected in a field study. Participants filled in a questionnaire after attending one out of 25 events of greatly different formats, contents, and emotional signature, including film screenings, readings, art exhibitions, concerts, and further event types; $N = 493$; ages 18–86; for details see Schindler et al., 2017. A multilevel mediation analysis (with events as Level 2 units) was computed based on the standardized variable scores. Only the within effects (Level 1) are reported. + Zero not included in 90% CI; * zero not included in 95% CI; ** zero not included in 99% CI.

for aesthetic enjoyment and liking. Still, the topical formula of an “enjoyment of sad music” or “tragedies” may, strictly speaking, be misleading, at least to the extent that sadness is actually not enjoyed qua sadness but only via its mediation through being moved.

Importantly, this pattern of findings is by no means limited to the specific case of sadness and being moved. Figure 2 shows the findings of another new BSEM analysis, which we computed with data of our scale development study for the Aesthetic Emotions Scale (Schindler et al., 2017). Whereas the positive emotion delight made a direct positive contribution to liking, fear, another negative basic emotion, likewise contributed to liking only indirectly—in this case, via fascination (indirect effect = 0.06, 95% CI [0.02, 0.11]). In analogy to being moved, fascination—particularly, morbid fascination—has been conceptualized as combining approach motivation and sustained attentional focus with marked elements of negative stimulus evaluation (Oosterwijk, Lindquist, Adebayo, & Barrett, 2016).

The Neurobiology of Aesthetic Emotions

A case for aesthetic emotions is a case for the role of discrete emotions in aesthetic evaluation in addition to the general mechanisms of attention, arousal, and sensory biases. Skov and Nadal (2020) misrepresent our move as a break not only with Berlyne’s (1971) model, but also as challenging the predominant neurobiological understanding of the human liking system. We indeed stipulate that an aesthetic evaluation-driven liking is categorically different regarding antecedents (namely, aesthetic virtues and vices irrespective of experiential domains) from other types of liking; this may well translate into differences in subjective feeling. Yet nowhere do we stipulate special neurobiological mechanisms for aesthetic liking alone. To the contrary, we actually summarized our short discussion of this aspect as suggesting “that emotional responses with an aesthetically evaluative implication involve increased activations of classical physiological indicators of emotional arousal and the neural reward circuitry” (Menning-

haus et al., 2019, pp. 183–184)—not a word about a special neurobiological machinery!

Similarly, the only neuroscientific study on emotionally moving poetry that we have published to date (Wassiliwizky et al., 2017) reported activation of the mesolimbic primary reward circuitry, which is also involved in processing primary rewards such as food and sex, and had previously been shown to be similarly activated during listening to profoundly enjoyed pieces of music (Blood & Zatorre, 2001; Salimpoor, Benovoy, Larcher, Dagher, & Zatorre, 2011). Consequently, we reject Skov and Nadal’s (2020) representation of our position regarding the neurobiology of aesthetic emotions as a simple misrepresentation.

Evidence Not Read and Theory Not Considered

Skov and Nadal (2020, p. 14) stipulate that if there is any special quality to aesthetically evaluative as compared to other emotions, then, for instance, feelings of being moved should differ in their aesthetically evaluative versus their ordinary variant in at least one, and presumably more, of the five components of emotion. We readily agree. Contrary to what Skov and Nadal (2020) suggest, empirical evidence of this type, even though scarce for the time being, is by no means completely missing. In fact, based on the Geneva Appraisal Questionnaire (GAQ, <https://www.unige.ch/cisa/research/materials-and-online-research/research-material/>; Scherer, 2001), we tested for differences in cognitive appraisal profiles depending on whether episodes of being moved were elicited by individuals’ self-remembered own real-life events, by media-reported real-life events, or by fictional events as represented in narratives, films, and other media (Menninghaus et al., 2015). The latter condition is a typical case of exposure to the arts and entertainment and hence of aesthetic enjoyment. The data show clear differences in appraisal profiles for the three conditions. To be sure, these data constitute only a very first explorative step, yet they are clearly encouraging.

The findings referred to above represent just a small portion of the most fundamental article we have published to date on being moved: “Towards a Psychological Construct of Being Moved” (Menninghaus et al., 2015). Given the amount of space that Skov and Nadal’s (2020) comment devotes to our research on being moved, it is awkward that the authors did not take notice of this article.

Conclusion

This response rebuts Skov and Nadal’s (2020) objections point by point. It moreover defends as well as expands the empirical evidence in support of our model.

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Received March 10, 2020

Revision received April 21, 2020

Accepted April 21, 2020 ■