## Commentary on "Aesthetic Experience Explained by the Affect-Space Framework" by E. Schubert, A. C. North, & D. J. Hargreaves

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ABSTRACT: This commentary discusses the paper by Schubert and colleagues in the context of the recent proposals in the field of empirical aesthetics and neuroaesthetics, emphasizing the need for inclusion of the time variable for accounting for the dynamic nature of a musical experience. At the same time, the efforts of the authors for systematizing the concepts in the field are praised.

Submitted 2016 May 28; accepted 2017 January 18.

KEYWORDS: aesthetics, emotions, preference, liking, chills, chronometry, neuroaesthetics

IN their target article, the authors propose a new framework for clarifying various notions related to aesthetic experiences of music and other arts. The proposed semantic space includes three polar dimensions, namely internal vs. external locus, affect-valence vs. emotion-valence, and deep vs. shallow hedonic tone. Another stated goal of the proposed semantic space is to identify the necessary mental processes that constitute a true aesthetic experience. The framework is presented in the context of certain previous proposals (Brattico, Bogert, & Jacobsen, 2013), which the authors also criticize, in a manner that I welcome as useful and constructive.

In their article, the authors review a number of philosophical, psychological, and brain-based definitions of an aesthetic experience, ranging from the Kantian concepts to many modern proposals stemming from accumulating neurophysiological and neuroimaging findings. Indeed, scholars who have made contributions to philosophical or empirical aesthetics have often provided their own definitions and notions, based on their perceived priorities. This has headed the field towards proliferation of words and concepts so typical of any endeavor that has yet to achieve the gold standard of theory crafting typical of the more advanced natural sciences. One researcher, for example, counted 100 different definitions of emotion looming in affective sciences. In physics, there is only one broad definition for mass. This, I think, is inherent to the phenomenon of interest and can be hardly changed.

I do not wish to criticize the commendable effort by the authors, but, rather, to simply point out that some of their own critical points might be, even too easily, turned against them. Their aspiration to organize the language of empirical aesthetics by introducing novel concepts as opposed to previous frameworks that are judged to be conceptually confused and chaotic might merely add to the problem rather than solve it.

My own preferred solution to the problem of mushrooming terminological clout is to define the conceptual system that underlies aesthetic responses by an empirical survey approach that gauges the verbal expressions used by laypersons and thus taps onto an existing platform of efficient communication – our everyday natural language (as done in (Istok et al., 2009; Jacobsen, 2004; Jacobsen & Hofel, 2002)). In other words, I believe that the powerful, irreducible, and fine-grained semantics of our natural language, and the associated semantic intuitions that serve us so well and make efficient communication possible, already by in and itself could still provide a rather useful starting point in this arena, even in the context of scientific communication. Folk concepts capture our experiences and make the relevant distinctions in an optimal way. They still allow us to collect and report new empirical data that we so urgently need in order to understand the phenomenon. Of course, this stance in no way leads me to reject new definitions and terminological conventions.

Accepting the authors' conceptual refinement at its face value would lead us into a virtually endless discussion of terminological preferences. Some of their organization might be too reductive against the background of the multidimensionality of several previous accounts that I find useful in my own work. For example, the authors think that aesthetic emotions are characterized by their internal origin, as they are related to a contemplative state and a feeling, as opposed to aesthetic judgments, which



are characterized by their external locus, as they refer to the object itself. To me, there is too much simplification here when considering the literature aiming at dissecting the different components of an emotional response (e.g., (Lindquist, Wager, Kober, Bliss-Moreau, & Barrett, 2012; Oatley & Jenkins, 1996; Ochsner & Gross, 2005). An aesthetic emotion has been considered as a meta-emotion with aspects that are even more complex to define (Perlovsky, 2014).

Similarly, the authors propose a hierarchical distinction between awe, chills, and sublime being characterized by "deep hedonic tone" versus enjoyment, pleasantness, and preference being characterized by "shallow hedonic tone". Whatever its merits, I feel that the distinction might be too judgmental in its attempt of classifying some privileged aesthetic responses as "high" or "deep" or "true". The idea seems to be to confine enjoyment, pleasantness, and preference that do not fall into the putative category of a "true aesthetic experience" into the category of everyday situations.

Furthermore, by defining preference or liking as mild non-aesthetic responses to musical pieces or art objects, the authors are rejecting as irrelevant most of the literature that has been identified as empirical aesthetics (e.g., (Berlyne, 1971; Jacobsen, 2006; Silvia, 2005)). In this field individuals' aesthetic responses to varying stimulus material (typically visual art) have been quantified in terms of preference, liking, and interest by means of subjective ratings. Similarly, I find that the authors put no emphasis on the dynamics (temporality) of aesthetic experiences, a matter that I find to be crucial in my own work (Alluri et al., 2015; Alluri et al., 2012; Brattico et al., 2016; Brattico, Bogert, et al., 2013; Brattico, Tupala, Glerean, & Tervaniemi, 2013; Burunat, Alluri, Toiviainen, Numminen, & Brattico, 2014; Nieminen, Istok, Brattico, Tervaniemi, & Huotilainen, 2011; Reybrouck & Brattico, 2015). In my view, the authors of the current proposal only partly recognize the large similarities with the concepts that were already present in the chronometric framework of an aesthetic experience of music (Brattico, Bogert, et al., 2013), in which discrete emotions were considered transient and only passages towards the true aesthetic responses, which included (felt) aesthetic emotions, such as enjoyment, liking and aesthetic judgments. I would therefore reject their more "static" view as less optimal. At the very least, in the neurosciences the temporal dynamics of our brain processes constitute one of the most important issues (see also recent work by (Trost, Fruhholz, Cochrane, Cojan, & Vuilleumier, 2015; Vuilleumier & Trost, 2015), minimally a topic one cannot hope to ignore.

To develop the previous topic a little more, research in neuroaesthetics is indeed very active. Research has proliferated quite recently, in fact, especially the research on visual empirical aesthetics and neuroaesthetics. This seems to be, unfortunately, missed by the authors. For instance, to obtain a fuller picture of the recent research in the neuroaesthetics of music, I would recommend the reader a good and comprehensive up-to-date summary that can fill in some of the missing details (Hodges, 2016).

In the section "Aesthetic emotions", the authors relate aesthetic emotions to the Kantian concept of "disinterested attention" and state that they can happen only during "artistic contemplation", hence when detached from daily activities and interests. Unfortunately, ethnomusicologists have moved away from "claiming universality of aesthetic appreciation as disinterested contemplation, in favor of participatory musicing" ((Hodges, 2016), p. 251). The view proposed by the authors seems to miss the recent conceptions about the bodily responses to art (Freedberg & Gallese, 2007; Gallese & Freedberg, 2007) as well as the action tendencies in componential models of emotions (Ellsworth & Scherer, 2003).

The authors attribute to previous research a desire to group all possible aesthetic responses under the rubric of emotion. If this is somehow true for the recent proposal by Juslin (Juslin, 2013) (as the authors indeed notify in the "Implications" section of the paper), according to which aesthetic judgment is one of the mechanisms of inducing emotions by music listening, it is not the case for many other proposals in music or visual domains (Brattico, Bogert, et al., 2013; Jacobsen, 2014; Leder, Belke, Oeberst, & Augustin, 2004; Reybrouck & Brattico, 2015).

Among the implications of their semantic space model, the authors mention a clarification of the paradoxical phenomenon of enjoyment of sad music. They refer to the solution proposed by Brattico and Pearce (Brattico & Pearce, 2013) of "using a pleasantness dimension to augment the valence dimension" and suggest its replacement by their emotion-valence/affect-valence dichotomy. While I recognize the potentiality of the current semantic space model, I would like to specify that Brattico and Pearce's proposal is based on neuroscience evidence distinguishing "core" pleasure, which involves immediate, reflex-like reactions to stimuli, from "conscious" pleasure, which involves attentional and motivational processes (for more details on this, please see (Brattico, 2015)). Nevertheless, the proposed affect space might be extended to explain our recent findings obtained with functional magnetic resonance imaging (fMRI) of distinct neural activity in limbic and striatal brain structures to favorite music clips (whether happy or sad) versus activity in sensory cortices to happy music clips (whether liked or disliked) (Brattico et al., 2016).

There are many similar points of subjective disagreement and preference. Ultimately, however, I feel that one could adopt the authors' framework as well as some other framework, since researchers

are free to adopt whatever conceptual framework best captures the problems and issues they are currently tacking with. For instance, to mention one, when it comes to cognitive or neuroscience research where it is paramount to include the variable of time for identifying the dynamic processes involved in an aesthetic experience, other chronometric or information processing proposals would be more appropriate. No doubt, though, the proposed framework fits the bill when it comes to the authors and for other researchers working within similar contexts, it might turn out to be quite useful as well.

## Acknowledgements

Center for Music in the Brain is funded by the Danish National Research Foundation (DNRF117).

## NOTES

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