

Music, Affect, Method, Data: Reflections on the Carroll Versus Kivy Debate

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The comprehensive exchange between Noël Carroll and Peter Kivy, which took place in 2007, addressed key issues in the relationship between music and affect. More than in any prior philosophical debate on this topic, experimental psychologists' methods and data played a significant role. However, to a nontrivial extent, the findings—perhaps especially the dubious—were misconstrued or misused, usually without acknowledging the existence of contrary data-based opinion within the psychology of music itself. Therefore, one objective of the present article is to identify the specific problematic features and shed light on the broader context shared by the two disciplines. A complementary goal is to examine contributions to philosophers' transgressions by music psychologists' insufficiently conscientious reporting, frequent overgeneralizations, and unawareness of philosophers' critical arguments. Another objective is to examine the current status of key concepts—the relevant music, basic emotions, mood, expression, induction, movement and dance, and methods (including introspection and experimental procedures)—thus perhaps enabling the discussion of music and affect to proceed with fewer misunderstandings. Finally, the article moves beyond the initial debate and builds on a remarkable agreement of philosophical and psychological opinion on a key issue (the induction of *non*-basic emotions by absolute music) to reach a new conceptual ground.

1. Introduction

The starting point of this article was an extensive and detailed exchange that took place in 2007 between Noël Carroll and Peter Kivy, both philosophers of music (Laura Sizer and Carroll's coauthor, Margaret Moore, also contributed). Their debate addressed an impressive number of important issues and controversies regarding the relationship between music and affect (Carroll & Moore, 2007; Kivy, 2007a, 2007b; Sizer, 2007). It was preceded by Carroll's (2003) expository article on art and mood and Kivy's (2006) critical commentary on a comparatively short section of Carroll's article devoted to the effects of music on mood. More than perhaps in any previous debate in

contemporary philosophy that focused on music and affect, experimental psychologists' theoretical ideas, methods, and research data played a significant role in the views expressed by all the participants.

One should note at the outset that *affect* is an umbrella category that includes both *emotion* and *mood*; however, a clear and generally agreed-upon distinction along many relevant dimensions has been made between these two terms (e.g., Parkinson, Totterdell, Briner, & Reynolds, 1996; Konečni, 2010). Both Carroll (2003) and Kivy (2006) seemed to agree with *affect* as the general category.

Welcome as the significance in the exchange of their data and thought was to psychologists of music,

especially those deeply interested in philosophical matters, satisfaction and hopes of rapprochement were tempered by the results of a closer scrutiny of the ways in which some psychological findings were treated by these eminent aestheticians.¹ In some instances, one, another, or both philosopher parties misconstrued methods and data. In others, data were uncritically placed in the service of a theoretical agenda, without acknowledging (or being aware) of the existence of contrary data and opinion within the psychology of music itself. Therefore, one of the main objectives of this article is to identify the precise features of the misconstrual of psychological data, in order to illuminate—on the example of the Carroll versus Kivy debate—the broader context in which this practice occurs.

However, psychologists of music are themselves often to blame for being misunderstood or misrepresented. They sometimes report their methods and data with insufficient care and overgeneralize the applicability of their findings with some regularity. In addition to these intradiscipline methodological and inferential transgressions, psychologists of music sometimes either ignore or are only superficially aware of even the most highly relevant (to their own work) philosophers' arguments. For these reasons, another important objective of this article is to specify—using again the issues from the exchange as target materials—the modal methodological shortcomings of the relevant psychological experiments that have contributed to philosophers' occasional misuse of the ensuing data.

The third objective is to discuss—from the perspectives of different participants in the debate and from the standpoints of both the philosophy and psychology of music—some of the key concepts in the relationship between music and affect: the relevant types of music; basic emotions; mood; expression; induction; movement and dance; and “emotivism,” a quasi-ideological cultural backdrop for discourse in this area. An additional objective is the discussion, throughout the article, of research methods (broadly conceived to include introspection, thought experiments, and experimental procedures). The goal is to clarify matters that seem to be of interest to most camps in both philosophy and psychology of music, in the hope that the discussion of the relationship between music and affect can proceed with fewer misunderstandings.

Finally, the article (which has eight sections) proceeds beyond the arguments of the Carroll versus Kivy debate and moves to a new conceptual ground, building on a remarkable agreement of philosophical and psychological opinion on a key issue (the induction of *non*-basic emotions by absolute music). This development promises a genuine, if partial, rapprochement.

II. Music and Absolute Music

Until the second half of the 18th century, it seems that the majority of claims about the deeply affecting nature of music was in reference to music that was sung, containing text (lyrics) and narrative. For philosophers and theoreticians of music, the problem arose with the advent of pure instrumental (“absolute”) music: Listeners continued to be deeply affected, yet what was it in these textless, storyless pieces that produced the powerful effect? The problem was further sharpened when one properly removed from consideration the various examples of “program music”: pieces that contained descriptive titles and various extramusical onomatopoeic and conceptual references. To this day, it is the effect of absolute music—of the Western canon—that remains the main focus of philosophers of music interested in affect (including, of course, Kivy). This is in part because the impact on affect of sung music, with text or a story line, is rightly considered to be a separate issue, and this is also true of sung textless music (a cappella or with instrumental accompaniment).

The effect of absolute music is also of primary interest to experimental psychologists of music interested in affect (including the present writer). In contrast, psychologists interested in the therapeutic and consumer applications, or generally in the effects of music in casual social and public settings, typically ignore the classificatory niceties I have described in the musical materials they put to use. In fact, incomplete awareness of the degree of unselectivity of the materials used in “mood music” research may have misled Carroll and Moore in some of their views.

However, even experimental psychologists are often insufficiently principled and rigorous in their choice of musical materials. Putting aside for now the issue of brevity of musical stimuli used by psychologists in typical experiments, a perusal of method sections reveals a frequent use (without explanation

or further ado) of bits of “program music,” even in articles in which references are made to philosophers’ views (usually in terms of the cognitivists versus emotivists dichotomy, with Kivy as the cognitivist). One much-cited article with such features is by Krumhansl (1997, see pp. 338, 340), in which 3-min excerpts of Holst’s *Mars—the Bringer of War* (from *The Planets*) and Mussorgsky’s *Night on Bare Mountain* were “chosen to represent fear,” whereas 3-min excerpts of Vivaldi’s *Primavera* and Hugo Alfvén’s *Midsommarvaka* “represent[ed] happiness.”

Sizer (2007, p. 309) uncritically cited Krumhansl’s experiment as one that “demonstrate[s] that music induces both the somatic changes and cognitive changes constitutive of mood,” this in the context of attempting to rebut Kivy’s claims that were, of course, framed exclusively in terms of absolute music. For their part, Carroll and Moore (2007, p. 322 and endnotes 4 and 5) referred to Krumhansl’s work in an analogous vein, by sending the reader to Sizer’s article and to an article by two equally uncritical experimental psychologists of music: in the Carroll–Moore endnote 5, a chapter by Scherer and Zentner (2001) was cited as referring to “a 1997 study by Carol Krumhansel [*sic*] in which it was shown that . . . sad music aroused sad moods . . . and frightening music fearful moods.”

In several instances, Sizer (2007, pp. 309–310) cited psychological articles selectively. As an example, for much of her support of the music–mood thesis of Carroll and Moore, Sizer relied on a review article (without original experiments) by cognitive psychologists Bharucha, Curtis, and Paroo (2006). I shall return to some of this article’s speculative claims; for the moment, suffice it to say that in the Bharucha et al. article (p. 151), Krumhansl’s and several other experimental findings were misrepresented, which is not limited to the curious neglect of the interpretive problems of the use of brief program music excerpts. And keeping in mind the overriding issue of absolute music, it is of interest that when Bharucha et al. (2006, pp. 154–155) spoke of the “origin of the mappings between musical structure and emotion,” they sought it in speech (“motherese”) and in singing to infants.

III. Absolute Music and Emotion: Preliminaries

When experimental psychologists (unlike the proponents of, for example, humanistic psychology) speak of emotions, most of them firmly keep in mind their

biological, evolutionary, and adaptive foundations. Anger, fear, joy, and sadness are therefore emphasized, and for many (including this writer), possibly with the addition of shame and guilt, this represents the complete list of basic or fundamental emotions. Some event in the environment (often involving the words or actions of another human being), or that event’s mental representation, is the cause that, once it has been appropriately interpreted, gives rise to an emotion (with all its facial, physiological, posture, and motor features). In cognitive theories of emotion in philosophy, the “event” is discussed as an “intentional object” about which the person holds a set of *beliefs*.

There are theoretical models in psychology, such as the Prototypical Emotion-Episode Model (PEEM; Konečni, 2008a), in which cognitive operations are thought to play a part not only with regard to the initial event but also later in the emotion sequence (sometimes with recursive, feedback loop features) in the interpretation of the facial, physiological, posture, and motor changes that are experienced (Konečni, 2008a, Figure 1, p. 117).

Cognitive theories of emotion are dominant in psychology (sometimes they are called “appraisal” theories, but these actually form only a subset); other, noncognitive, theories exist, as they do in philosophy (of music and more generally). Kivy rarely mentions the existence of noncognitive theories. Instead, even when he is not explicitly engaged in a debate, Kivy ignores them, swiftly moving to the ground on which he is comfortable—and, I agree, this is rationally and on balance the most defensible ground: Because there is no narrative or representational or symbolic object in absolute music, such music cannot *by itself*, by definition, induce the basic emotions mentioned earlier.

Pursuing matters along the path charted by Eduard Hanslick and Edmund Gurney, Albert Gehring (1910, pp. 175–182) clearly described the formalist position. As for Kivy (1989, p. 156), he has consistently used the term “garden-variety emotions” for anger, joy, and sadness, although he occasionally, unfortunately, diluted or muddied matters by adding “love and hope” to the list. In any case, Kivy’s term has not taken root in either philosophy or psychology—fortunately, because “garden-variety” implies “common and trivial” more than it does (the well-deserved) “frequent and hugely important biologically.”

Also, the question arises about which, to Kivy, are the *non*-garden-variety emotions. I will return to this question in section VIII. Suffice it to say that the use of the term may imply to some that Kivy has in mind “states” or “feelings” such as serenity and triumph, which I believe is not correct. On this issue, one should add that no experimental psychologist would deny a philosopher or research participant the right to claim that he or she is experiencing “serenity,” or “triumph,” or “restlessness,” or any other of the myriad alleged “states” for which words exist; but for most of these, other terms are reserved, such as *attitudes*, *dispositions*, complex combinations of these, and, indeed, *moods* (cf. Scherer & Zentner, 2001, p. 116).

Meanwhile, Carroll (2003, p. 524) explicitly stated that he would “reserve the label *emotion* for those episodes aptly characterized by cognitive theories,” and he later granted that musical formalists (of whom Kivy is certainly the most prolific present-day exponent) “are correct in maintaining that absolute music does not evoke certain kinds of affects, such as cognitively incited emotions” (Carroll & Moore, 2007, p. 318). However, one gets the impression that Carroll was ambivalent about his participation in the debate. On one hand, he was compelled to engage (or suffer) the formalists because they claimed the masterpieces of the Western canon as their domain; they espoused the most reasonable and the empirically best-researched theory of emotion; they insisted on a “canonical way of listening” to music, a deep, informed, dedicated approach to listening that Carroll could not afford to ignore; and, perhaps most importantly, Kivy has stated, since at least *The Corded Shell* in 1980, that formalists do experience strong emotions while canonically listening to superb examples of the Western canon but that these emotions are not the fundamental or basic or “garden-variety” emotions (more on this key point in section VIII).

On the other hand, since his introduction of mood, Carroll has apparently not felt compelled to assume a defensive stance. First of all, he rightly thought that the possibility (conceptual and phenomenological) of the effects of absolute music on mood should be thoroughly explored, including by experimental methods, and by thinking of moods as genuine affective states, he strongly objected to them being treated as “*ersatz* or defective emotions” (Car-

roll, 2003, p. 524). Second, in trying to explain how music can affect mood, he was willing to go beyond absolute music (which he described as sometimes “modeled on the sound of the human voice”) to sung and program music and to state that such music, with unambiguous “representational content,” may indeed “stimulate” (the presumably basic) emotions, which may then “engender emotional spillover” into moods (Carroll, 2003, p. 546). Third, in proposing a listener’s focus on movement in music (including absolute) as another path to mood, Carroll and Moore (2007) attempted to broaden the scope of canonical listening.

Of course, these proposals are by no means new. For example, on “internal motion” in emotion and in music and matters pertaining to informed listening, one can consult Gehring (1910, pp. 173–180). But one gets the impression of Carroll wishing to bring, through the concept of mood, a considerably broader range of musics into his domain of inquiry. From many psychologists’ viewpoint this is welcome, unlike Carroll’s (unnecessary?) insertion of fuzzy terms “feeling” and “feeling-charged states,” without preparation and proper definition, into the “affect” umbrella (Carroll, 2003, p. 546).

Any discussion of the position of experimental psychologists on absolute music and emotion must begin with the issue of such music being *expressive of emotion* (rather than, or in addition to, inducing it). One can safely state that in a sizable proportion of experimental psychologists’ articles on music and emotion (including much-cited ones), expression and induction (or the perception of emotion in the music versus experiencing emotion as a function of listening) are confused or conflated. The confusion is demonstrated in various ways and to various degrees. For example, it is not uncommon for an article’s method section to state clearly that participants rated the “musical stimuli,” but for these same participants’ “emotional experience” to find its way into the wording in the discussion section or even the abstract and the title (Konečni, 2008a, pp. 116 and 118–119). In some cases the confusion may occur inadvertently, through conceptual carelessness long characteristic of this “emotional” domain.²

In others, conflation may indicate that the psychologist–author implicitly believes, without stating it in the article, that people are not able to identify

the emotions of which the music is expressive without experiencing them, which is actually the explicit position of philosophers whom Kivy and others before him have called musical emotivists: Their view is that “music is sad in virtue of arousing sadness in listeners” (Kivy, 1989, p. 154). However, a sociologist of science would not ignore the possibility of the existence of a belief (and incentive) system in experimental psychology such that an article that deals with the experience (especially of one of the basic) emotions is judged to be closer to evolutionary biology and thus “more scientific” than one dealing with the “mere ratings of music.” So, having obtained only ratings of music from participants, an experimenter may be tempted to “promote” such ratings into self-ratings of emotional experience.

Correctly from an empirical standpoint, Carroll and Moore (2007, p. 319) believed that people can reliably distinguish expression from induction, but they also, questionably, left other possibilities open, to wit, “Although in some cases the detection of expressive properties can occur without feeling something like what the property names, in others, aren’t we able to identify the expressive quality of the work precisely because of the way the work moves us?”

The latter part of the statement seems strained and intuitively implausible; also, only the first part of the statement has been empirically confirmed (Konečni, Brown, & Wanic, 2008). Also, Carroll and Moore seemed to impute (if so, mistakenly) to Kivy the view that listeners cannot make the distinction. Kivy’s positions on this issue and on absolute music’s expressiveness of the basic emotions are clear:

According to the enhanced formalist, among the various structural and phenomenological properties it possesses, absolute music possesses expressive properties that are perceived in the music. . . . The expressive properties . . . are what I call the garden-variety emotions, such as anger, sadness, or happiness. (2007a, p. 312)

Also,

Of course, on my view, listeners can and do distinguish between their affective states and the expressive properties of the music. My error theory does not place the error in *misplacing* the emotion; it places it in *misdescribing* the

emotion. And, by the way, *psychologists have shown that* subjects misdescribing the emotions they are experiencing is a common phenomenon. (Kivy, 2007b, pp. 323–324)

Recent empirical findings by Konečni et al. (2008) that research participants rate the recalled sad and happy events in their lives as incomparably more “sad” and “happy,” respectively, than they rate the prototypical examples of “sad” and “happy” music, support the quoted claims of Kivy (1989, p. 161; 2007b) and indirectly contest some of Radford’s (1989, 1991) modified emotivist statements.

From my position within the experimental psychology of music, I have frequently expressed views that are analogous to the quoted ones of Kivy, and so have some other music psychologists (Konečni, 2008a, pp. 119–120, 2008b; Gabrielsson & Lindström, 2001).

IV. Absolute Music and Emotion: Induction

Unfortunately, many—perhaps most—experimental psychologists of music have chosen not to be preoccupied by Kivy’s musical formalism. This is apparent from the high frequency of hyperbole in their theoretical claims and overgeneralizations about the relationship between music and emotion, including about the possibility of basic emotions being induced in listeners by absolute music. Paying more attention to formalists would bring much-needed conceptual discipline. It would force some psychologists of music to consider more carefully what absolute music really entails and others to reexamine the implications of cognitive theories to music listening. Taking canonical listening to absolute music seriously would lead experimenters to rethink whom they want to classify as relevant listeners and which musical pieces (and of which length) should be used in their studies. Having done that, as Carroll, Moore, and Sizer have, psychologists could then choose to leave formalism’s tight grip and extend their work to other populations of research participants, other listening situations, and other musics. But the departure would be more knowledgeable and more carefully charted, and—importantly—rash statements about the effects of absolute music on the basic emotions would be avoided. Kivy could not object to this; after all, he is aware that Carroll’s consideration of moods, effects

of music with content, and a broader culture as the recipient of music, is part of a tradition going back to Plato's interests and concerns.

These are well-intentioned suggestions concerning psychological work in this domain. With regard to the specific question of induction of emotion by absolute music, the limited space available for additional comments can perhaps be best used by addressing the well-publicized theoretical article by experimental psychologists of music Patrik Juslin and Daniel Västfjäll (2008). The critique that follows draws in part on my published critical commentary (Konečni, 2008b) and on other critical commentaries making analogous points (e.g., Robinson, 2008; Scherer & Zentner, 2008; Thompson & Coltheart, 2008).

Contrary to the view held by Juslin and Västfjäll, the ability of absolute music to induce—qua music—any of the emotions that are usually thought of as fundamental is highly dubious (pace Colin Radford). Of the six “mechanisms” they proposed for how pure instrumental music may cause such emotions, three specifically involve nonmusical mediating events. In *episodic memory*, remembrances of real-world emotional situations are the proximal cause of any emotion induction. In *visual imagery*, the mental representation of an event is the proximal cause, not the music that gives rise to the image. As for *evaluative conditioning*, a nonmusical emotional event with which music has been temporally paired in the past is the true cause of emotion. The fourth proposed mechanism, *brain stem reflex*, is hardly worth discussing as a cause of genuine fundamental emotions, for dissonant chords or loud sounds, for example, may cause startle and very briefly raise the level of (sympathetic) arousal, but that is all. And with regard to the fifth so-called mechanism, *musical expectancy*, far too much has been made of this in *emotional* terms since the early work of Leonard Meyer (1956, strongly influenced by the then-popular Clark Hull's psychology of learning) to the present (e.g., Krumhansl & Agres, 2008). An unexpected violation of musical expectancy may perhaps produce a “musicological surprise,” but that should not be confused with genuine (cognitive–physiological) emotional impact. Finally, *emotional contagion*—whereby emotion is allegedly induced by the music's expressiveness being unconsciously mimicked internally by the listener—remains a highly speculative issue (by Juslin's and Västfjäll's own admission).

In short, I am contending that absolute music may induce a *basic* emotion only by profiting—like some other art works do—from various types of associations of music with nonmusical events and also from the visual imagery to which music may give rise, and it is these *nonmusical* events that are the *true proximal* causes of the fundamental emotions. Furthermore, to the extent that the nature of music's essential (especially temporal) attributes facilitates music's association with the true causes of basic emotions more *frequently or “naturally”* than is the case with other stimuli, artistic and nonartistic, this ought to be carefully investigated, not assumed. In short, what is required is a complex comparative examination of the causal paths and mediative routes that are involved in the effects of absolute music, as well as a routine multicomponent measurement of emotion. The *premises* of these suggestions leave the formalist bastion untouched, just as Kivy has claimed, but the research suggestions themselves point to a great deal of constructive activity that is possible in the broad areas around the somewhat isolated bastion.

It is interesting to note that two of the six mentioned emotion induction mechanisms were discussed in the Carroll versus Kivy debate. With regard to emotional contagion, in the course of (I believe convincingly) challenging the Carroll–Moore view that the detection of expressive qualities of a piece of music may happen via the listener's “arousal,” Kivy (2007b) suggested that this view must imply something like “contagion”; he relies on Stephen Davies's account of this mechanism and seems critical both of the mechanism itself and of the contention based on it.

As it happens, back in 1910 (p. 186), Gehring suggested three alternate terms—parallelism, contagion, and sympathetic arousal—for a mechanism very similar to the one that Kivy (via Stephen Davies) had in mind, without acknowledging him. (By “sympathetic arousal” Gehring clearly did not mean “arousal of the sympathetic subsystem” of the autonomic nervous system, as I have used the term).

Visual imagery, on the other hand, was first mentioned by Carroll (2003, p. 548) in connection with movement: “The same feelings that prompt us to move in response to the music also prompt us to imagine how someone or something would move to the music.” Kivy (2006, p. 278) admitted that Carroll had thus provided “a part of a *plausible* explana-

tion for how the affective states in question, namely, moods, can be engendered in listeners by absolute music.” However, Kivy went on to claim, the production of visual imagery (and any resultant affective states) is not an acceptable part of formalist canonical listening—to the rules of which, according to Kivy, Carroll willingly agreed to adhere in the 2003 article in order to “strike a truce” with the formalists. Formalist canonical listening rules thus have the same conceptual outcome as does my (and others’) claim that visual imagery is a nonmusical proximal cause of emotion and thus not a possible mechanism of *direct* induction of emotion by absolute music qua music (as Juslin and Västfjäll would have it).

V. Absolute Music and Mood: Preliminaries

Before turning, in section VI, to some important, purely psychological problems regarding the induction of mood, which were raised in the original 2003 article by Carroll and especially in the discussion articles by Sizer and by Carroll and Moore, it is necessary to draw a line below Kivy’s critique of Carroll’s proposals.

One way of thinking of the main conclusion of the previous section is that although it is conceptually and logically impossible for absolute music to induce basic emotions directly, it can do so by means of various nonmusical mediators. Yet Kivy would (rightly) deny any relevance to the formalist position of the effect of such mediators on basic emotions. Of course, he would do so while allowing that such effects are possible and acceptable as a result of some other, nonformalist mode of canonical listening (2006, pp. 278–279). But here, too, there are limits (and rightly so): For example, listening to “mood music” cannot be considered canonical listening “in any mode.” And Kivy would claim that a formalist canonical listener would pay no attention to nonmusical matters—extraneous memories, mental visual images, and the like—and “concentrate as best he can on the structural, phenomenological, and expressive properties of the music” (Kivy, 2007a, p. 312).

Furthermore, because Carroll used some similar mechanisms (to those described earlier for emotions) to account for how absolute music might induce mood and changes in mood, Kivy was able, using the same logic, to reject the relevance of these mechanisms for the induction of moods also, thus rejecting

the truce proposal: Carroll’s “move from emotions to moods [is not] a promising way of satisfying the formalists,” concluded Kivy (2006, p. 279).

But the formally correct success in refusing the peace pipe does not prevent Kivy from leaving himself open, despite his protestations, to the seemingly justified claim by Carroll and Moore (2007, p. 318) that their way, unlike his, is correct—that is, their way of regarding “the task of the philosophy of music [as] in large measure an effort to rationally reconstruct the practice of music.” Carroll and Moore referred to practitioners, creators, and listeners as participants in the practice of music, but it is *listening* that is most at issue here. Kivy’s formalist canonical listening obviously can happen and even should happen (he thinks of some of the key aspects in normative terms, and I tend to agree). But to what proportion of serious classical music listeners does it happen? And how often, with what regularity? Also, does it happen every time such a listener chooses to listen to a particular piece? Does it mean that all the movements of a piece must be heard in one sitting from beginning to end? No bathroom breaks and no getting up for coffee (or cognac)? No answering the phone or a question from a spouse or child? And what happens if the formalist, in the midst of canonical listening, catches himself tapping his foot, or having an unintended visual image, or remembering something about the last time he heard the piece? Does he immediately stop listening and start from the beginning (maybe after taking a cold shower to chastise himself)? What if any of these transgressions were to happen to the formalist canonical listener at a live concert? Would she have to leave and come back after the intermission? And, finally, there is the key question—but I will leave it for the final section of the article when I discuss the situation in which Kivy and I are both moved by superb absolute music, he to “ecstasy” and I to “aesthetic awe.”

The point of this series of questions is to illustrate that the austerity and rigidity of formalist canonical listening is philosophically attractive but logistically implausible: In short, it is not realistically situated in musical life. In one of the quoted statements, Kivy himself said that the formalist canonical listener should “concentrate *as best he can* on the structural” (italics added). This reminds one of a monk fervently ordering himself not to stray to impure thoughts in his prayer.

Furthermore, it is essential to remember that on many of the occasions when a serious listener of absolute music fails, in one way or another, despite trying her best, to engage in unblemished formalist listening, she may provide valuable data: Was it a visual image or an episodic memory that induced a noticeable basic emotion? Which structural feature of the music preceded and possibly caused these nonmusical mediators? Was there any involvement of a violation of expectancy or of something producing the brain stem reflex? And precisely when and how does *program* music sharply differ from absolute music with regard to these questions? This is experimental psychologists', but also experimental philosophers', territory. So is the detailed examination of circumstances conducive to the mentioned peak experiences.

Despite some cogent additional criticisms of the realities of psychological experimentation, Kivy has, in effect, removed himself from further debate on such substantive issues. I therefore now turn to Carroll's most psychologically colored proposals regarding the induction of mood by absolute music.

VI. Absolute Music and Mood: Movement

In "Art and Mood," Carroll (2003, p. 548) hypothesized that the listener's perception of movement "projected by the music," and the consequences of that perception, namely, the "affectively charged sensations in our bodies that prompt us to move in concert with the music," constitute the main mechanism for how music might induce and change moods. Carroll's discussion of movement is welcome, and the preceding statements are uncontroversial to an experimental psychologist—with the notable exception of the mention of "affectively charged," for there is no reason why any affect would occur *that early in the sequence* to which Carroll alludes. As an example, in reference to Carroll's account, compare the temporal positions of "motor behavior" and "posture," both designated as occurring *prior to affect* (emotion), in Figure 1, p. 293, of Konečni et al. (2008) and in Figure 1, p. 117, of Konečni (2008a).

But there is another point here: A great deal that Carroll wrote about movement and mood in 2003 (and later with Moore) he might as well have written about movement and emotion. The choice of moods (as *objectless* states) over emotions was apparently strategic—to engage and pacify the formalists. But

the strategy did not succeed, at least in Kivy's case, for Kivy found ways to classify any attention by the listener to the internal consequences of perceiving movement in the music as *nonformalist* canonical listening (at best!). However, I have left that matter behind and will discuss the psychologically relevant points in Carroll's proposal in reference to both emotion and mood, and not always to absolute music exclusively.

To this writer, the most acceptable treatment of the conceptual status of the internal consequences for the listener of perceiving movement in the music is that these consequences are *mediators* of the effect of music (*any* music) on emotion or mood (where the particular resulting affective state depends on other factors in the listener's mind and environment). And whereas the acts of perception and appreciation of movement-related properties of music can be regarded as legitimate musical mediators, the *subsequent* internal consequences of these acts—the tendencies to move, imagine, and recollect, and the processing of the motor and cognitive *results* of such tendencies—should properly be viewed as *nonmusical* mediators, and it is they that are the proximal causes of affect (Konečni, 2008a, 2008b).

As for Carroll (2003, p. 549), he specifically mentioned "a tendency to *imagine* . . . or to recollect, or to attend to the kinds of movement . . . suggested viscerally by the movement in the music." Note that only at the end of the sequence, after affect has been established, can one talk of "mood-inspired-movement-imagining" that is mentioned by Carroll and Moore (2007, p. 321). With regard to affect in this context, note that the fact that people *can* report—at the end of the proposed sequence—their affective state does not mean that they ordinarily need to, or do, consciously attend to it in order to know what they think of the music and whether or not they are enjoying it.

Sizer's views of Carroll's proposal were different and internally inconsistent. She seemed to accept in the first part of her discussion that Carroll was talking only of mood, not emotion. For example, she (like Carroll) repeatedly mentioned the "biasing" of cognitive operations by moods as if such biasing is their distinguishing feature (which it is not; and consider the guarded and ambiguous conclusions of the review by Mitchell & Phillips, 2007). And in her article's final part, she argued that Carroll showed

how changes in mood can be directly induced by absolute music, claiming, in effect, that listeners' attention to their preaffective processes does not count as a nonmusical mediator (which it should do). But her defense of Carroll's position in the middle part of the article is all in terms of emotion and, more importantly, mostly based on a single (previously mentioned) nonempirical article by Bharucha et al. (2006). What Sizer (2007, p. 310) did is summarize their highly speculative argument: A specialized brain system generates, on the basis of musical structure, certain "formal eliciting codes," and these syntactic, implicit, and modular representations are automatically mapped onto domains of affective and motion processing (cf. Bharucha et al., 2006, pp. 133–134). Sizer (2007, p. 310) concluded that "this provides support not only for the claim that we hear music as communicating affective information, but also that we hear it as communicating information about motion."

However, postulating the existence of specialized brain systems, eliciting codes, and modular representations, and especially the disputable "automatic mapping" of eliciting codes onto the affective domain, hardly "provides support," unambiguously and in sufficient detail, for Sizer's position vis-à-vis others. In fact, a skeptical scholar may rightly say that a neuroscientific account at this level of generality adds little substantively to what she or he has long realized through introspection—that music can *sometimes* be perceived as expressive of emotions and that movement can *sometimes* be heard in it.

One should briefly mention here the use of neuroscientific data by Carroll and Moore (2007, pp. 319–320). In four instances, on two successive pages, they say something like this: When research participants are exposed to classical music, an increase in cerebral blood flow is observed by magnetic resonance imaging in the brain areas that are *also* known to be associated with emotion and reward, and with motion. Such statements are acceptable only without a hint of causation (which would amount to a logical fallacy), yet the warning to readers by Carroll and Moore (p. 319) was limited to this: "Needless to say, this is not conclusive proof. But it does show that there may be scientific evidence." This should have been accompanied, as a minimum, by a statement that correlational information of this kind does not mean that music has caused a subjective experience

of emotion in listeners or produced a perception of movement: Each brain area is generally responsible for many subtly different processes.

Nevertheless, when matters are put in perspective, one must conclude that the "neuroscientific sins" of Carroll and Moore are tolerable, especially when measured against the authentic contribution of their efforts to enlist the psychological and neuroscientific evidence in the discussion of affective states and the perception of movement in reference to music listening. Sizer's reliance on the neuropsychological speculations of Bharucha et al. in her defense of Carroll is less careful but nevertheless restrained, especially when one takes into account the current neuro-enthusiasm that is certainly not limited to philosophy.³

Proponents of effects of perceiving movement in music on mood change must deal with another serious problem when recruiting certain psychological experiments to their cause. In fact, this is a wider problem that both philosophers and psychologists of music encounter, and seldom acknowledge, in debates about music, emotion, and mood. It is critically presented in Konečni's summary of the implications of a well-known experiment in this literature: "Participants listened in succession to 25 music selections with a duration of 65–230 sec each. Can it be realistically expected that a human being's full-blown emotions—serious and metabolically expensive responses with a long evolutionary history—can change once a minute ad infinitum?" (Konečni, 2008a, footnote 5, p. 120). And one could reasonably replace *emotions* with *moods* in the broader implications of the preceding description, because moods have a much longer time course than emotions.

Kivy (2006, p. 279) pounced on some of the analogous implications, writing that a "listener to a major symphony in the classical music canon [who] experienc[es] mood swings, from one end of the affective spectrum to the other, that the symphony might musically exhibit, as, literally, *felt affective states* . . . is not just an unusually 'sensitive' listener, [h]e is a man with a problem."

Kivy's comments about psychological research (a fairly recent development for him) are often perceptive and accurate. However, the attitude he displayed about a scholar's responsibilities is curious. He rightly admonished philosophers not to "just accept uncritically what a psychologist says" and

stated that “we must look *critically* at the design and results of these experiments.” But then he became unhappy with Sizer: “For although she gives full bibliographical information . . . she gives none of the designs or results of the experiments” (Kivy, 2007a, p. 313)—unwilling, apparently, to consult the original sources himself.

Closer to the main argument, Kivy must have read composer Paul Hindemith, who wrote in 1952, “Real feelings [implying emotions] need a certain interval of time to develop, reach their climax, and fade again; reactions to music, however, may change as fast as musical phrases do. . . . If it happened with real feelings, we could be sure that it could be only in the event of slight insanity. The reactions music evokes are not feelings; they are the images, the memories of feelings” (in Fisk, 1997, p. 314).

To their credit, Carroll and Moore (unlike many “music–emotion enthusiasts” in psychology) frankly acknowledged the problem, but their solution undermined Carroll’s original plan and forced them into vacillation and even shakier conceptual positions: “Moods may come and go swiftly. Nevertheless, we do concede that moods are not normally fleeting. But the moods induced by music have a somewhat different etiology than moods in life. Moods in life are engendered by our coping resources” (Carroll & Moore, 2007, p. 321; for a comparison, see the section “Some Criteria for Mood,” in Konečni, 2010, pp. 712–713). The Carroll–Moore efforts are reminiscent of the enthusiasts’ attempts to maintain at all costs that music induces basic emotions without mediation—and if not the basic ones, then “musical emotions,” or perhaps “quasi-emotions,” or “as-if emotions . . .”

VII. Music, Mood, Movement, Dance

Mood is emotion’s unglamorous and unclamoring cousin. However, there have been claims that mood is “now recognized as a central element of human behavior” (Thayer, Newman, & McClain, 1994, p. 910). Carroll is certainly to be commended for propelling it into the discussion of music and affective states—especially because of his additional emphasis on the perception of movement and its imagistic and behavioral consequences for mood and dance.

Carroll and Moore brought up the close trans-cultural association of music, movement, and dance and pointed out that even baroque and classical

dance forms have origins in music to which people danced. Of course, it is true that early dancing music did not have the complex musical characteristics of later compositions carrying the names of dances. And it is unlikely that one could or would want to dance a sarabande to the “Sarabande” in Partita No. 1 in B-minor for Solo Violin (BWV 1002) by Bach, which is, essentially, absolute music. (Objections along these musicological and the familiar formalist-listening lines were presented by Kivy, 2007b, p. 327.) Nevertheless, many serious listeners might agree, at least on some of their listening occasions, with Carroll and Moore (2007, p. 321) when they stated, “There is no reason to suppose that when these [baroque and classical] forms are deployed . . . in a concert-hall context, that it is no longer appropriate to attend to them by fancying movement.”

“Fancying movement” may lead to actual movement and beyond. Scruton (2007, pp. 239–240) mentioned the “elaborate rituals and courtesies” in the dance forms that were adopted by Bach and Handel, but emphasized the sense of “withness” between partners in the experience of dancing. The sexual (evolutionary) aspect of this movement-produced state of withness in dancing cannot be overemphasized. Here is a brief reminder of the ancient goings-on from the *Iliad*, Book XVIII (from Samuel Butler’s [1898/1952] rendering of the *Iliad* into English prose):

There danced youths
and maidens whom all would woo, with their
hands on one another’s wrists. (p. 136, lines
592–594)

and

Loud rose the cry of Hymen, and the
youths danced to the music of flute and lyre. (p.
135, lines 493–494)

Such considerations lead to the idea that in the real world of music and affect there is a much-traveled, multisegment route that runs from some music (including some absolute music) via its physiological and motor effects on to dance and display of reproductive fitness (in terms of body symmetry, agility, endurance, beauty, and health) and finally to the interpretation by the listener–dancer of his or her affective state. The end result may be a basic emotion that is, however, proximally induced not by the initial music but by distinctly nonmusical aspects of the

situation, such as the close physical interaction with one's dance partner and competition with the possible romantic or sexual rivals. (This account is based on Konečni, 2008a, p. 123, and Konečni, 2008b, Figure 1, p. 583. On music and sexual selection, also see Miller, 2000.)

VIII. Implications and Extensions

MOOD, EMOTION, "EMOTIVISM."

Carroll must have been aware of the danger he was facing when he undertook the project on art and mood, especially with regard to its music part. After all, he could be perceived as descending from the ethereal heights of absolute music into the swamps of mood music, music for airports, elevators, and aerobic exercises, pre-coital music, and music to speed up the sales of sneakers and German wines. One gets the impression that Carroll took the risk because he was sufficiently convinced by arguments that absolute music does not induce biologically important emotions in listeners. So why bother looking for a replacement? Could it be the current climate of what I have called "emotivism" that has influenced Carroll to keep searching under the affect umbrella? But even if that indeed was Carroll's motivation, the result—the step down from the prevailing music–emotion enthusiasm that the choice of mood represents—is welcome to a rational skeptic.

Elsewhere, in a chapter about emotions and reason in art music composers' creative process, I have informally defined emotivism as the currently prevalent position in the study of, and talk about, music (but not only music)—the propensity for excessive insertion of emotion and "feeling" into both lay and scientific theories of mental life, motives, needs, and daily behavior, in matters artistic (especially musical) and nonartistic (Konečni, 2012a). In contrast to the emotivist attitude, I have argued for the paramount importance of contemplation, analytical and technical skills, problem solving and planning—in short, reason—as the key features of art music composers' (including contemporary ones') daily work, especially when developing large-scale pieces (but not limited to these). I also suggested that the role of acute emotional states induced by life events was minimal and indirect. As Carl Nielsen wrote, "It is music that of all the arts requires the strictest discipline . . . the

most exacting study there must be" (Fisk, 1997, pp. 214–215); Albert Roussel, in 1928, wrote, with high relevance, "It would be wrong to suppose that the musician remains absorbed [in some emotion] during the whole course of composition of a work" (Norman & Lubell Shrifte, 1946, p. 331).

Nevertheless, emotivism pervades much talk about music, from pop-psych accounts to scholarly discourse. In the latter, one of the many possible examples is the apparent attempt to "referentialize" absolute music. For instance, even Kivy's robust formalist notion that "expression is not a form of meaning" was challenged by Nelson Goodman's analysis of expression as "metaphorical exemplification." Jennifer Robinson drew on Goodman's (1968, chapter 2) suggestion that "expression is indeed a kind of reference, but of a *metaphorical* sort" and Ferguson's (1960) argument "that music can itself function as a metaphor of emotional life," to state, with apparent approval, Goodman's "intriguing" conception as follows: "Musical expression sometimes goes beyond the mere possession of qualities and can be understood in terms of *exemplification* by an extended piece of music of some more complex *psychological or emotional drama*, such as a struggle for victory or a nostalgic attempt to recover a lost past" (Robinson, 2007, pp. 149–150, italics added). Note that Susanne Langer (1951, pp. 222–223) described, in the symbolist language of the 1940s, a rather similar position—without subscribing to it, of course.

To give another example regarding musical expression, there are various versions of "resemblance theory," one of which, "similar to that offered by Malcolm Budd" (1995), Tom Cochrane (2008, p. 329) summarized "by the slogan 'the music sounds the way the emotion feels.'" This "slogan" is one of Cochrane's assumptions, which, along with an uncritical acceptance of the neuroscientific conjecture of a mirror neuron system in humans and of its relevance to music (see his endnote 3), as well as his application of the idea of "extended mind" of Clark and Chalmers (1998), led Cochrane (2008, p. 329) to hypothesize, speculatively (to say the least), that "music can potentially play the same role as bodily changes in realizing the musician's emotional state." (These hypotheses have been roundly challenged by Konečni, 2012b.)

I take it that these far-fetched examples speak for themselves, in terms of exaggeration and low

probability, certainly when they are examined closely. The occasional frequency modifiers (*sometimes* in the quote from Robinson, *often* in the quote from Bharucha et al. that follows) do not change the overall impression. The first sentence of a major section (third of five), titled “Affective Experience,” in the article by Bharucha et al. (2006, p. 150), reads as follows: “Emotion often accompanies our listening experiences, and is often the reason why we choose to listen to music.” Others substitute *we* with *research*. Thus, in the first sentence of the abstract and in the lead paragraph of their previously mentioned target article in *Behavioral and Brain Sciences*, Juslin and Västfjäll (2008, p. 559) wrote, “Research indicates that people value music primarily because of the emotions it evokes.” However, when the claim is closely examined, one finds that the research consists almost exclusively of adolescent self-reports (Konečni, 2008b, p. 582).

I have spent time on emotivism because it is a rarely recognized backdrop for many of the issues being debated here. One can think of it as (paradoxically) a *cognitive* stance taken by many contemporary scholars and an interesting reaction by philosophers and psychologists of music to a quasi-ideological social and cultural context that is deeply anti-intellectual. Apart from the social relativism (sometimes with a political tone), a key feature of this context is a pervasive insistence on “emotional sensitivity” in its countless manifestations (Konečni, 2012a, p. 152).

COMMENTS ON METHOD: INTROSPECTION.

Longish sections of Kivy’s rebuttals to Carroll and Moore, and to Sizer, consist of his refusal to accept the evidence from typical experiments in the psychology of music as being relevant to what formalists find interesting in absolute music. Kivy would undoubtedly like to hear from people whose listening is at least deep and informed and who are at least knowledgeable about classical music—if they cannot be formalist listeners and scholars, closely familiar with the scores and various performances of the works in the Western canon. Perhaps above all, he would like to hear from listeners who habitually think about their reactions to music, that is, who have the curiosity, skill, and inclination to *introspect*.

Instead, when Kivy reads reports of modal experiments, he finds that the participants were non-music major undergraduates who knew very little about clas-

sical music and who listened to many brief excerpts one after the other, providing answers on numerous simple, bipolar rating scales about each excerpt. Often there are additional methodological problems, even when the criterion of success is the study’s self-defined, modest, nonformalist goal (Konečni, 2008a).

Yet the scholarly deep listener introspecting on his own (let us call him P.K.) and the unsophisticated undergraduate (along with others like her, who had been “randomly assigned to the same experimental condition”) managed to come to the same general conclusion about one of the key questions regarding the relationship between music and emotion: Absolute music can be expressive of emotion. Moreover, P.K. and the student would probably agree about the name of the emotion expressed by a particular piece or a section of it. (Students show high agreement with each other, even cross-culturally.)

However, already the next step is more problematic. An experimenter could easily design rating scales such that the “evidence would show” that the majority of the students enjoyed the music they heard *because of the emotions* of which the music was expressive. In fact, the participants would not have to be much cajoled, for they have been brought up in an emotivist culture that regards music, emotion, and pleasure as naturally linked in an unbreakable triangular bond. But a music psychologist who bothered to listen to P.K. would hear a very different conclusion. Here is what she would learn from a P.K. substitute, the introspecting Albert Gehring (1910, pp. 179–180, italics added):

In view of all these converging and reinforcing lines of argument . . . the whole literature of music appears like an elaborate, systematic experiment, which demonstrates that musical beauty is not connected primarily with the expression of emotions. This conclusion might perhaps have been gained even more quickly by *direct introspection*. A careful examination of our state of mind during the appreciation of a piece of music would show that our enjoyment had its main roots, not in the recognition of expression, but in the unique, indefinable, *intrinsically musical* qualities of the tones.

Not only did Gehring have confidence in his own deep introspection and music scholarship, but he also

trusted what he saw as the converging evidence from the introspection of many scholars preceding him. Of course, any studious undergraduate methodologist can easily find things wrong with this method of inquiry and inference, but here one at least has, outlined in stark contrast, the two approaches that continue to this day to permeate the discussion between the philosophy and psychology of music, as well as within each of these disciplines, as demonstrated by the Carroll versus Kivy debate.

The plausibility of a relevant theory is one criterion that can help decide which method provides more trustworthy results in a particular situation. As I have previously mentioned (and written similarly elsewhere), Kivy rejected music psychology experiments in which participants hear, within a short period, numerous brief excerpts that allegedly induce different emotions. And he criticized Carroll for holding views about the nature of moods that would allow even a theoretical possibility that a listener could experience wild oscillations of mood in the course of listening to a single symphony. (I mentioned Hindemith's analogous views.) In this case, Kivy's views are clearly supported by the dominant biological and psychological emotion theories according to which emotions are major, metabolically costly, acute states that involve interacting cognitive, physiological, facial, and motor components (Konečni, 2008a, pp. 116–117).

Of course, Kivy's criticisms were based not on scientific theory but on his complete faith in the results of his introspection (or *Gedankenexperiment*)—to the extent that he dared to couch the final “proof” (or flourish) as an appeal to readers to introspect: “I ask the reader to listen . . . to one of the well-known Romantic symphonies of Schumann, Brahms or Tchaikovsky, lay his hand upon his heart, and swear to me that he has ‘felt’ his way through it, ‘moodwise’” (2006, p. 279).

If experimental psychology journals were as indulgent to authors, one would be tempted to launch a similarly direct appeal to one's emotivist colleagues who claim that *basic emotions* are induced in listeners by absolute music. For it appears to this skeptic that music-emotion enthusiasts state in their articles what they think should be the case, not what they have established in themselves by careful introspection.

After all, many psychologists do use introspection: The design of experimental procedures and

instructions to participants in, for example, social psychology profit from experimenters' introspection (even if this is seldom acknowledged in articles) because, logistically, not every detail can be pretested on participants. Moreover, as internal processes go, the existence and qualities of emotional experience are eminently analyzable by introspection (and reportable).

So why do emotivist music researchers not use introspection while listening to outstanding examples of absolute music and find, to the skeptic's satisfaction, that they experience, as does he, emotional responses to such music but not the basic emotions? (This is addressed in the final subsection.) Well, the problem for skeptic-formalists such as me, as for Kivy, arises when someone like Colin Radford, after obviously and knowledgeably using introspection, “sincerely believes and sincerely reports that sad music makes him sad” (Kivy, 1989, p. 160; cf. Radford, 1989, 1991).

However, the problem has a solution, thanks to help from what would be (for P.K. at least) the unlikeliest source: undergraduates. For Kivy (1989, pp. 161–162) himself found, in “informal classroom experiments,” that students could change their minds about being sad in response to “sad” absolute music—and this was caused not by Kivy deviously guiding or goading the students to the “correct” response but simply by reminding them of (moderately) sad real-life events that may happen, or have already happened, even in their young lives. Kivy's description of his approach in these informal classroom experiments—subtle, astute, nondirective, and psychologically sensitive—should reassure incredulous emotivists.

Moreover, in an experiment with 144 undergraduates, Konečni et al. (2008) exposed participants to “sad,” “neutral,” and “happy” music and also asked them to recall (without reporting) the details of sad, neutral, and happy events in their lives. There were dramatic differences between the participants' ratings of their basic emotions of happiness and sadness when they recalled real-life events and when they listened to music. When the emotional effects, if any, of listening to music were put in perspective by real life, the self-ratings of music-induced emotion were close to zero; emotivist linguistic habits could be undone. Another finding was that the participants rated “sad” and “happy” music as far more expressive of emotions than they did “neutral” music.

In preparation for this experiment, the three authors carried out numerous pilot studies with participants from the same pool, using interview, questionnaire, rating scale, and diary data collection techniques. This was preceded by systematic and long-term use of introspection. Such background information reveals my preferred methodological solution to the epistemic dilemma presented in this section and, indirectly but repeatedly, throughout the Carroll versus Kivy debate. A relevant plausible biopsychological theory is helpful but not sufficient. Introspection and thought experiments are necessary, in order to become immersed in the problem, but they can be misleading, for obvious reasons, if used as the sole method. Experiments are necessary but can be misleading if used as the sole method, because both the independent and the dependent variables are often an impoverished or distorted version of the real thing. Only when one adds other research techniques (broadly conceived) to experiments, does one obtain a reasonably complete picture—idiographically and nomothetically.

LOVE OF VIRTUE, ECSTASY, AESTHETIC AWE, AND BEING-MOVED.

In *Sound Sentiment*, Kivy (1989, p. 229) claimed that there has been an “almost universal confusion among those who write about music . . . since at least the end of the sixteenth century” to the effect that the claim that music does not arouse the basic emotions (to which Kivy subscribes, and so do I) has been conflated with the claim that music is not emotionally moving (to which Kivy does not subscribe, and neither do I). Kivy (p. 229) thought that this conflation “convincingly explains the tenacity” with which the view that music arouses the basic emotions “has hung on to the musical and philosophical consciousness” (and one could safely add the psychological one), for to give up this claim would also mean giving up the “notion that we emote over music,” and that would be “absurd.”

Kivy specified (1989, p. 231) that “*the beauty of the music*” is the intentional object of the emotion—“call it musical excitement or musical enthusiasm”—to which he “is deeply moved.” Seventeen years later, in “Mood and Music,” Kivy (2006, p. 280, italics added) wrote, “Great music, in the Western absolute music canon, moves us to a kind of enthusiasm, or excitement, or *ecstasy* directed at the music as its intentional object.”

In section V, when I raised questions about the rigidity of formalist canonical listening as outlined by Kivy, I mentioned that I would return to this point when I introduce “ecstasy” as the emotion to which Kivy himself is moved by the beauty of a particular work. Note that Kivy (1989, p. 232) indicated that other individuals experiencing ecstasy to the same work may be “moved by the ‘same’ object . . . the beauty of the [piece] . . . yet each is also, under a different description, moved by a quite different intentional object: [one] by the beautiful melody [and another] by the beautiful harmonic structure.” The question then arises, along with some that have been raised by Carroll: Is the same kind or depth of formalist canonical listening necessary to experience ecstasy, given these different (though all beautiful) intentional objects, equally functional but very different in processing difficulty?

To return to the main issue and conclude this article with my own theoretical proposal: To begin with, I agree with Kivy that it is the beauty of the music that is the object of the emotion one experiences while closely listening to superb absolute music—keeping in mind that the overall beauty consists of several beautiful features or streams, each of which can be the emotional object and to each of which various listeners can respond separately. Kivy and I are actually in ancient and rather illustrious company with regard to this simple contention—that expressed by (part-time Cartesian) Johann Mattheson in 1739 (Mattheson, 1981).

But what are the *non*-basic emotions that the beautiful examples of absolute music induce? Mattheson claimed that they are love of virtue and hatred of vice (cf. Kivy, 1990, p. 154). He presumably recognized these emotions in himself by introspection and hoped for their occurrence in listeners, because music and the *Kapellmeister* were, in effect, jointly teaching morality. In Kivy’s case, as I mentioned above, the emotions are excitement, enthusiasm, and ecstasy.

My own proposal for the emotion that is experienced in response to the pinnacles of absolute music in the Western canon is *aesthetic awe*—first described, within a broader theoretical model, in Konečni (2005a; for the latest version of this position, see Konečni, 2011). Like love of virtue and ecstasy, aesthetic awe is a non-basic emotion.⁴ And like them, aesthetic awe is not a “musical emotion,” nor a “special” musical emotion, except in the “most benign,

nominalistic sense,” as Kivy (1989, p. 231) wrote of ecstasy. It is “musical” in the sense of being induced by music in this context, but it is hypothesized as the peak aesthetic response to all the art forms and to natural wonders (although there are qualifying criteria). Moreover, aesthetic awe is broader than ecstasy (and love of virtue)—not just in terms of the “natural” domains of its applicability but also in the detail of its description as experience and its integration into a theoretical position (Aesthetic Trinity Theory [ATT]) together with the states of Being-Moved and (physiological) Thrills (or Chills), in a hierarchical arrangement (Konečni, 2011; Konečni, Wanic, & Brown, 2007).

The definition of aesthetic awe in ATT includes, among other features, its being the prototypical aesthetic response to the *sublime stimulus-in-context*, which is, in this theoretical position, considered to be “external to the observer” and defined independently of aesthetic awe. The definition of the sublime stimulus-in-context includes criteria such as great rarity, extraordinary beauty, and very large size of the “object,” as well as the observer’s perception of controllability of its dangerousness (when these attributes are applicable to the art form in question), in addition to other criteria (Konečni, 2011, pp. 66–70).

An implication of this view is that for music to be the object at which aesthetic awe is directed, that is, *to be sublime* (in the technical sense within this theoretical position), it needs, among other attributes mentioned earlier, to be *colossal*; superb music can achieve this status “by being performed in vast architectural spaces that have not only outstanding acoustic qualities, but are themselves of extraordinary beauty” (Konečni, 2005a, p. 37). Mediaeval cathedrals are the obvious, but by no means the only, examples of performance settings that make superb music sublime and the object of the emotion of aesthetic awe (with regard to ATT).

Absent such performance settings, superb absolute music becomes—in ATT, and judging from some preliminary empirical findings in my laboratory with both musical and visual art materials—the intentional object “merely” of the (non-basic) emotion of Being-Moved. This less pronounced aesthetic response, which, in comparison to aesthetic awe, requires a greater involvement of the individual associative memory network, has also been independently de-

finied. It is considered a more frequent and transient, and less life-changing and memorable (in the literal sense) but nevertheless profound emotional state. Like aesthetic awe, it is often accompanied by physiological thrills or chills (including piloerection) and sometimes tears (Konečni, 2011, pp. 65–66). Moreover, according to ATT, music that can induce the Being-Moved state does not need to be expressive of basic emotions and some exceptionally moving music indeed is not. Kivy (1990, p. 158) discussed some late-15th-century motets by Josquin des Prez in this connection.

Many ideas from both philosophy and psychology of music have contributed to the conceptual development of Aesthetic Trinity Theory, which has been coupled with a fair amount of hypothesis-testing experimental work and nonexperimental data collection (e.g., on base rates of ATT emotions). When experiments were designed to tackle certain problems of long standing, great care was exercised to respect philosophers’ concerns. As I hope is clear from the tenor of this article, my goal has been to address both disciplines and to situate the theory at their intersection.

NOTES

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1. Although I count myself among the experimental psychologists with genuine and comprehensive interests in (philosophical) aesthetics, I believe that “when a philosophical statement permits falsification . . . by feasible empirical tests, there is little justification for continuing to make the claim—especially in the face of competing cogent claims—without attempting to carry out the empirical work, or, at least, to have a mental readiness to modify the claim when faced with the results of reasonable empirical tests” (Konečni, 2006, p. 81; cf. Konečni, 2005b).

2. An early principled and skeptical view on the issues of expression and induction was provided by Carroll Pratt (1931, p. 203; identical text in the 1968 printing): “Auditory characters [of music] are not emotions at all. They merely *sound* the way moods *feel*. Hence the ambiguity of the phrase ‘language of the emotions.’” These and other thoughts of Pratt’s were approvingly discussed and correctly quoted by Susanne K. Langer (1951, pp. 244–245; identical quotes, on the same pages, are in the 1957 and 1976 printings of the third edition of Langer’s book). Kivy misquoted both Pratt and

Langer, replacing *moods* with *emotions* in the phrase “music sounds the way emotions feel” (see Kivy, 1980, p. 40).

3. Compare, for example, the uncritical reliance by Tom Cochrane (2008) on claims about empathy and contagion in the neuropsychological mirror neuron literature (which had already been forced by empirical findings into a more realistic and circumscribed framework). Cochrane’s article has been criticized by Konečni (2012b).

4. Taking heed of the primordial roots of awe, one can regard aesthetic awe as an archaic mixture of the basic emotions of joy and fear in which terror is overcome by existential safety (required for joy). In comparison to basic emotions, however, aesthetic awe can be far more easily “switched off” at will by the experiencing person. It has also been suggested that sexual selection may have played an important role in the development of aesthetic awe as an adaptation. For a discussion of these notions, see Konečni (2005a, pp. 27 and 30–31).

REFERENCES

- Bharucha, J. J., Curtis, M., & Paroo, K. (2006). Varieties of musical experience. *Cognition*, *100*, 131–172.
- Budd, M. (1995). *Values of art: Pictures, poetry and music*. London, England: Penguin.
- Butler, S. (1952). *The Iliad*. New York, NY: Encyclopaedia Britannica. (Original work published 1898)
- Carroll, N. (2003). Art and mood: Preliminary notes and conjectures. *The Monist*, *86*, 521–555.
- Carroll, N., & Moore, M. (2007). Not reconciled: Comments for Peter Kivy. *Journal of Aesthetics and Art Criticism*, *65*, 318–322.
- Clark, A., & Chalmers, D. (1998). The extended mind. *Analysis*, *58*, 7–19.
- Cochrane, T. (2008). Expression and extended cognition. *Journal of Aesthetics and Art Criticism*, *66*, 329–340.
- Ferguson, D. N. (1960). *Music as metaphor: The elements of expression*. Westport, CT: Greenwood.
- Fisk, J. (Ed.). (1997). *Composers on music: Eight centuries of writings* (2nd ed.). Boston, MA: Northeastern University Press.
- Gabrielsson, A., & Lindström, E. (2001). The influence of musical structure on emotional expression. In P. N. Juslin & J. A. Sloboda (Eds.), *Music and emotion: Theory and research* (pp. 223–248). Oxford, England: Oxford University Press.
- Gehring, A. (1910). *The basis of musical pleasure*. New York, NY: G. P. Putnam’s Sons.
- Goodman, N. (1968). *Languages of art: An approach to a theory of symbols*. Indianapolis, IN: Bobbs-Merrill.
- Juslin, P. N., & Västfjäll, D. (2008). Emotional responses to music: The need to consider underlying mechanisms. *Behavioral and Brain Sciences*, *31*, 559–575.
- Kivy, P. (1980). *The corded shell: Reflections on musical expression*. Princeton, NJ: Princeton University Press.
- Kivy, P. (1989). *Sound sentiment: An essay on the musical emotions*. Philadelphia, PA: Temple University Press.
- Kivy, P. (1990). *Music alone*. Ithaca, NY: Cornell University Press.
- Kivy, P. (2006). Mood and music: Some reflections for Noël Carroll. *Journal of Aesthetics and Art Criticism*, *64*, 271–281.
- Kivy, P. (2007a). Moodology: A response to Laura Sizer. *Journal of Aesthetics and Art Criticism*, *65*, 312–318.
- Kivy, P. (2007b). Moodophilia: A response to Noël Carroll and Margaret Moore. *Journal of Aesthetics and Art Criticism*, *65*, 323–329.
- Konečni, V. J. (2005a). The aesthetic trinity: Awe, being moved, thrills. *Bulletin of Psychology and the Arts*, *5*, 27–44.
- Konečni, V. J. (2005b). On philosophical and empirical aesthetics. In A. Šlahova (Ed.), *The IV international conference, “Person–Color–Nature–Music”* (pp. 44–55). Daugavpils, Latvia: Saule.
- Konečni, V. J. (2006). Music and emotion: An empirical critique of a key issue in the philosophy of music. In A. Erjavec & L. Kreft (Eds.), *Proceedings of the III Mediterranean Congress of Aesthetics, “Imagination, Sensuality, Art”* (pp. 81–86). Ljubljana, Slovenia: Slovensko društvo za estetiko.
- Konečni, V. J. (2008a). Does music induce emotion? A theoretical and methodological analysis. *Psychology of Aesthetics, Creativity, and the Arts*, *2*, 115–129.
- Konečni, V. J. (2008b). A skeptical position on “musical emotions” and an alternative proposal. *Behavioral and Brain Sciences*, *31*, 582–584.
- Konečni, V. J. (2010). The influence of affect on music choice. In P. N. Juslin & J. A. Sloboda (Eds.), *Music and emotion: Theory, research, applications* (pp. 697–723). Oxford, England: Oxford University Press.
- Konečni, V. J. (2011). Aesthetic trinity theory and the sublime. *Philosophy Today*, *55*, 64–73.
- Konečni, V. J. (2012a). Composers’ creative process: The role of life-events, emotion, and reason. In D. J. Hargreaves, D. E. Miell, & R. A. R. MacDonald (Eds.), *Musical imaginations: Multidisciplinary perspectives on creativity, performance, and perception* (pp. 141–155). Oxford, England: Oxford University Press.
- Konečni, V. J. (2012b). Constraints on manipulations of emotions by music: A critique of Tom Cochrane’s assumptions. *Philosophy Today*, *56*, 327–332.
- Konečni, V. J., Brown, A., & Wanic, R. A. (2008). Comparative effects of music and recalled life-events on emotional state. *Psychology of Music*, *36*, 289–308.
- Konečni, V. J., Wanic, R. A., & Brown, A. (2007). Emotional and aesthetic antecedents and consequences of music-induced thrills. *American Journal of Psychology*, *120*, 619–643.

- Krumhansl, C. L. (1997). An exploratory study of musical emotions and psychophysiology. *Canadian Journal of Experimental Psychology*, *51*, 336–352.
- Krumhansl, C. L., & Agres, K. R. (2008). Musical expectancy: The influence of musical structure on emotional response. *Behavioral and Brain Sciences*, *31*, 584–585.
- Langer, S. K. (1951). *Philosophy in a new key: A study in the symbolism of reason, rite, and art*. Cambridge, MA: Harvard University Press.
- Mattheson, J. (1981). *Der vollkommene Kapellmeister: A revised translation with critical commentary by Ernest C. Harriss* [The complete *Kapellmeister*]. Ann Arbor: University of Michigan Press.
- Meyer, L. B. (1956). *Emotion and meaning in music*. Chicago, IL: University of Chicago Press.
- Miller, G. (2000). Evolution of human music through sexual selection. In N. L. Wallin, B. Merker, & S. Brown (Eds.), *The origins of music* (pp. 329–360). Cambridge, MA: MIT Press.
- Mitchell, R. L. C., & Phillips, L. H. (2007). The psychological, neurochemical and functional neuroanatomical mediators of the effects of positive and negative mood on executive functions. *Neuropsychologia*, *45*, 617–629.
- Norman, G., & Lubell Shrifte, M. (Eds.). (1946). *Letters of composers: An anthology 1603–1945*. New York, NY: Knopf.
- Parkinson, B., Totterdell, P., Briner, R. B., & Reynolds, S. (1996). *Changing moods: The psychology of mood and mood regulation*. London, England: Longman.
- Pratt, C. C. (1931). *The meaning of music: A study in psychological aesthetics*. New York, NY: McGraw-Hill.
- Radford, C. (1989). Emotions and music: A reply to the cognitivists. *Journal of Aesthetics and Art Criticism*, *47*, 69–76.
- Radford, C. (1991). Muddy Waters. *Journal of Aesthetics and Art Criticism*, *49*, 247–252.
- Robinson, J. (2007). Can music function as a metaphor of emotional life? In K. Stock (Ed.), *Philosophers on music: Experience, meaning, and work* (pp. 149–177). Oxford, England: Oxford University Press.
- Robinson, J. (2008). Do all musical emotions have the music itself as their intentional object? *Behavioral and Brain Sciences*, *31*, 592–593.
- Scherer, K. R., & Zentner, M. R. (2001). Emotional effects of music: Production rules. In P. N. Juslin & J. A. Sloboda (Eds.), *Music and emotion: Theory and research* (pp. 361–392). Oxford, England: Oxford University Press.
- Scherer, K. R., & Zentner, M. R. (2008). Music evoked emotions are different—More often aesthetic than utilitarian. *Behavioral and Brain Sciences*, *31*, 595–596.
- Scruton, R. (2007). Thoughts on rhythm. In K. Stock (Ed.), *Philosophers on music: Experience, meaning, and work* (pp. 226–256). Oxford, England: Oxford University Press.
- Sizer, L. (2007). Moods in the music and the man: A response to Kivy and Carroll. *Journal of Aesthetics and Art Criticism*, *65*, 307–312.
- Thayer, R. E., Newman, J. R., & McClain, T. M. (1994). Self-regulation of mood: Strategies for changing a bad mood, raising energy, and reducing tension. *Journal of Personality and Social Psychology*, *67*, 910–925.
- Thompson, W. F., & Coltheart, M. (2008). The role of signal detection and amplification in the induction of emotion by music. *Behavioral and Brain Sciences*, *31*, 597–598.

