

Musical Empathy, Emotional Co-Constitution, and the “Musical Other”

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ABSTRACT: Musical experience can confront us with emotions that are not currently ours. We might remain unaffected by them, or be affected: retreat from them in avoidance, or embrace them and experience them as ours. This suggests that they are another’s. Whose are they? Do we arrive at them through empathy, turning our interest to the music as we do to others in an interpersonal encounter? In addressing these questions, I differentiate between musical and social empathy, rejecting the idea that the emotions arise as a direct consequence of empathizing with composers or performers. I argue that musical perception is doubly active: bodily knowledge can extend auditory perception cross-modally, which, in turn, can orient a bodily hermeneutic. Musical passages thus acquire adverbial expressivity, an expressivity which, as I discuss, is co-constituted, and engenders a “musical other.” This leads me to a reinterpretation of the musical persona and to consider a dialectic between social and musical empathy that I think plays a central role in the individuation of shared emotion in musical experience. Musical empathy, then, occurs via a combination of self-involvement and self-effacement—leading us first into, and then perhaps beyond, ourselves.

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BEYOND just hearing sounds and sound sequences as “mere” sounds, our musical experience frequently is psychological. Often enough the experience is only accidentally related to the heard detail. Re-hearing a composition associated with a cherished time in life, for example, could trigger an episode of nostalgia. The composition’s place in our personal history is then part of what we are nostalgic about, rather than it—the composition—somehow embodying nostalgia. Sometimes, however, the psychological experience can also be closely related to the music’s detailed qualities, in the sense that it is specifically related to how the qualities and their complex interrelations were composed and are being performed. Emotions emerging within the ongoing musical experience can be felt as being one’s own—for example, as a performance unfolds, one can notice one’s growing or receding sadness, hopefulness, pride, or elation (without these being *about* the music)—or they can be felt as being “the music’s” (i.e. as somehow residing in the music) *without* necessarily becoming one’s own. Music thus seems to confront us not only with our own current emotions, but with other emotions, or the emotions of others. Importantly, the presence of such emotions in music is felt, rather than merely recognized or brought up in response to the music. This is reminiscent of how, in an interpersonal encounter, we get a sense of another person’s emotional states without—unlike in contagion—necessarily getting into the states ourselves (yet doing so potentially). The interpersonal capacity by which we get a sense of another’s emotional state (beyond recognizing or understanding the state they are in) via upheld perceptual involvement with them yet without necessarily being “infected” by those states is called empathy.[2] Does, then, psychologically involved listening to music of the outlined sort—where the psychological experience is closely related to the unfolding musical detail—build on, afford, or exercise empathetic acts? And if so, whom do we empathize with, and to what extent? These questions drive my following discussion of musical empathy.

I first distinguish the concept of empathy from other, related concepts, and, later, social empathy via music from musical empathy, problematizing the idea that empathetic processes inherent to musical experience are directed towards composers or, alternatively, performers, and that they are directed towards them separately, or only. I shall be critical on the way of some views that argue towards empathy on

insufficient or misleading grounds; I shall, however, not discuss other understandings of the relation or aspects of the relation between music and psychological experience, such as views based on contagion, in-his-shoes-imagining, arousal, and so on. I centrally argue towards a notion of the *musical other* as at the basis of genuine musical empathy, and as co-constituted and as relying, to a significant extent, on the listener's bodily interpretation of the heard. I show how this view leads to a reinterpretation of the musical persona, before discussing differences between degrees of musical empathy, and considering a dialectic between social and musical empathy that underlies emotional individuation within specific instances of listening.

CONCEPTS OF EMPATHY

First, a terminological issue: when authors in musicology or music philosophy speak of empathy, their understanding of the concept is often not articulated, or, where so, only in broad terms. By some, the terms "empathy" and "sympathy" are used synonymously and ambivalently; others only use one of the terms (sometimes "sympathy" is used for what in other understandings would be "empathy");[3] others still use both terms with distinctive meanings.[4] In order to be clear, I shall therefore begin by outlining the concept I use, before, in the next section, reflecting on its suitability to the experiential situation at hand.

When I compared the psychologically involved experience of music to an empathetic encounter with another human being, I introduced some basic conditions for empathy: (1) the observer's or listener's attention is—with some level of consistency—directed towards another person, or, respectively, the music; (2) beyond recognizing or understanding another's state, the observer or listener gets what I have called "a sense of" that state. For a refined understanding of the conditions for empathy I draw on Peter Goldie's analysis. Empathy, in Goldie's words, is "a process or procedure by which a person *centrally imagines the narrative* (the thoughts, feelings, and emotions) of another person" (2000, p. 195; emphasis original). In order for such a centrally imagined narrative to be empathy, Goldie names three necessary conditions: (1) an awareness of the other as a center of consciousness; (2) having a substantial characterization of the other; and (3) having a grasp of the narrative at the basis of an imaginative enaction.

It is largely with reference to these conditions that Goldie distinguishes empathy from other ways in which we perceive, grasp, and think of others' psychological states. Emotional contagion, for one, may occur without any of the three conditions: we may catch onto someone else's emotion without relating the emotion to them in any way, or turning our interest towards them. Commonly, this occurs unconsciously. We may also, as distinct from empathy, imagine ourselves "in someone else's shoes" (as Goldie and others call it). This process involves a shift of perspective but, like merely "centrally imagining oneself,"[5] requires no or only little characterization of the other. A third category of grasping others' emotions distinguished from empathy by Goldie eventuates through recognition and understanding and does not presuppose one's own emotional involvement. Lastly, sympathy, which as Goldie notes is often confused with empathy, is not a process of grasping, but rather itself an emotion (see Goldie, 2000, pp. 176-219).

MUSICAL EMPATHY AS EMPATHY WITH PERFORMER OR COMPOSER?

Does my initial comparison—between how we get a sense of another person's emotional states by way of empathy, and the psychologically involved, proximate experience of music—hold against the background of this more complex understanding of empathy? An obvious contender towards whom the listener's empathy might be directed would be the performer. When listening to music, do we empathize (in Goldie's sense) with the performer? Do we take the music as expressing the performer's emotions, and is it her emotions we hear in the music, or which we are confronted with via the act of listening? This would have to involve (1) a change of perspective, (2) a background characterization enabling that change, and (3) the imaginative enaction of a narrative (the narrative affording an ongoing revision of the imaginative process against what is currently perceived).

First: if a listener did achieve a change of perspective, what emotions would she find the performer to be engaged in? While I agree with Davies (2010, p. 29), that performers *might* but "need not feel the emotions they present," the idea of an empathetic engagement with the performer influencing the emotion experienced by the listener is not quite as readily fended off by this single observation as Davies thinks. Even if, during concert performance, a performer were to shape the music's expressivity in an entirely emotionally detached manner—as one might "make a mask that wears [...] an expression" (2010, p.

29)—the very working out of that expression would have afforded the performer’s genuine emotional involvement at the very least at a stage where, prior to the performance, she worked out her interpretation. Performers, hence, need not *currently* feel the emotions they present. Those *formerly* felt emotions, then and now somehow molded into the performance, might *still* be thought to be the goal of the listener’s empathetic inquiry.[6]

The conviction that the listener is accessing the performer’s current or prior emotions via music—emotions which are thus “communicated” to, “enacted” by, or “covertly performed” by the listener—stands behind the recently fashionable idea that a listener achieves this access through a mimetic process of “mental simulation.”[7] Might we not enter the performer’s emotional world, empathizing with her via some kind of internal imitation of her performance? Could not a minute observation of performing actions, in combination with an imaginative recreation of such actions from the heard (based on memorized performances and knowledge of performance gestures, conditions, instrumental affordances, and acoustic properties), be the basis of an imaginative enaction of the performer’s narrative (recalling Goldie’s third condition)? Could this not lead the listener to the performer’s emotion projected into or presented in the music?

There are at least two points that render such a view deficient. Firstly, the view overburdens the listener’s ability to discern or imagine the performance and its myriad bodily intricacies in sufficient detail and nuance. Yet, even if we *were* able to see or imagine something like the gist of the movements on and towards the instrument, there is still the mediation of movement effected by the instruments’ mechanics. Many of the technical subtleties of supremely expressive playing, such as right-hand violin bowing finesse demonstrated and described by Boris Kuschnir (2014), are almost opaque, even to many high-level professional players and arguably unknown to audiences. Some instrument-specific actions are invisible, such as those inside a wind player’s mouth. The problem multiplies when there is more than one performer. Just whom do we watch or imagine in ensemble and orchestral performance? The performer with the most salient sound? The often asynchronous conductor? An amalgam of individual players, orchestra, and conductor?

As if such questions did not exist, arguments for listener involvement via cognitive imitation of performing actions often point to neuroscientific research on mirror neurons. Does such neuroscientific research really offer the proclaimed opportunities to ground statements regarding performer imitation in musical perception? Rather not. One example: Kohler et al. (2002) report their findings of how certain groups of mirror neurons, part of a monkey’s ventral premotor cortex area F5, responded to both the monkey’s own manipulation of things (amongst these actions were peanut breaking and paper ripping), and also to the monkey only hearing digital recordings of such actions, or only seeing such actions performed by a human. They also describe how a large percentage of the neurons concerned were specialized, responding to peanut breaking but not to paper ripping, and vice versa. If their interpretation of the neuron responses is correct, then this means that certain neurons in monkey brains embody, in their lighting up, the monkey’s ability to differentiate certain actions and their sounds from other actions and their sounds, and to relate specific sounds to specific actions, even in the absence of these actions. What would a transfer of this interpretation to the domain of human musical perception yield? Does this mean that, when hearing music, mirror neurons light up that embody such relations between sounds of actions and actual actions that are currently absent? Do the findings by Kohler et al. support a theory of hearing instrumental actions in music?

Yes, and no. An observation on this question key within the present context is that Kohler et al. identify a difference in the degree of responses: “Although monkeys can perform a variety of hand actions that produce sound, breaking and tearing actions are by far the most frequent. Neuronal behaviour reflected this fact” (2002, p. 846). With other actions, such as plastic crumpling, metal hitting metal, paper shaking, or stick dropping, the response was much weaker. From this, it seems that, put simply, something the monkeys themselves did most frequently—and presumably were acquainted with best—produced the strongest presence in its absence apart from sonic stimulation. Those specific neurons, in other words, represent bodily knowledge of the relation between *their* actions and sound. They did not respond well at all to less familiar sounds of less familiar actions. It therefore seems at least premature, if not presumptuous, to think that the sheer existence of mirror neurons and their involvement in a process of making the absent present would simply be applicable to specific highly specialized actions, such as piano, koto, or cello playing (in which the right hand particularly makes a difference unknown to many a listener), to result in significant lightings up in the bulk of listeners who have minimal or no experience at all at these instruments. No such thing seems likely, at least considering the above findings of Kohler et al.—if

anything, the experiments' results point towards an irreducible role of prior experience and familiarity, habit, and skill in the very establishing of such mirror neurons. Neurons "mirror" prior acquaintance rather than mirroring the *other's* action behind the perceived. Put differently, they speak to, or of, familiarity rather than unfamiliarity. Like worldly mirrors, the neurons seem to reflect a process in which we mirror our own (albeit past) actions, rather than mirroring—in the sense of re-creating or matching—those of others. This would, in fact, be in line with the view I unfold in section 4.

A second point against the simple performer-empathy-by-imitation view: if a listener (say, herself an expert performer) actually managed to accurately "represent" and simulate performers' actions, it seems that any direct attempt at imaginatively embodying the performer's narrative and situation would lead one to a state in which the physical and psychological domain and effort of performing the work currently and an emotion present sometime during the working out of an interpretation are at least conflated. It might be argued that some performers may manage to make their current psychological state during performance transparent; yet this transparency and the unlikelihood or even impossibility of accurate simulation, would lead the listener's empathetic inquiry, via the music as performed, to a situation in which the performance as a whole turns transparent—from where it would then be impossible to distinguish the emotions felt and projected by a performer from those of the composer.

This brings me to the second contender for a potential act of empathy: the composer. But what would be the imaginatively enacted narrative here? Do we, perhaps, picture her or him in a state of creative possession—even just a mild one, narrowed down to a heightened mood and some emotional coloration, as Eduard Hanslick suggests?[8] But a listener has little if any access to whatever experiential qualities the composer engaged with at the very time of composition, no way of knowing whether there were any such qualities and, if so, what they were. Joyous music might well be written in dire times, and vice versa. Biographical information can orient an *interpretation* of the heard, but it cannot secure its emotional genesis. Hence, if there is any non-trivial relation between the composer's psychological life or imagination and the composition, it is heard in the music (as a result of the composer's creative decisions), not seen in the composer (as a result of an imagined emotionalized manner of composition, even if this might indeed sometimes be part of a creative process). This, again, gives a listener little in the way of distinguishing emotions felt and projected by performer from those of the composer.

The intuition that the performer's and composer's expressions play into the listener's experience is, however, too important to be ignored or prematurely discarded. What seems likely after this initial consideration is that whatever ephemeral emotional presences a listener discovers within the performer's realm of activity seem to take root in the music and its sounding realization rather than the other way around. Thus, the more a listener successfully engages with the performer or composer as subjects, the more this would effectively be empathy *supported* by perceiving musical activity, that is, empathy through music, rather than musical empathy. Such empathetic acts are certainly of important social significance, as in the multitude of cases where music mediates political activity, gives voice to injustice or plain misery, is part of ritualistic practice, or where musical activity supports the formation of prosocial behavioral skills (for examples of related studies see Laurence, 2008; Rabinowitch, Cross, & Burnard, 2013). But, they should not be confused with musical empathy. The difference is particularly clear when considering how sometimes we hear performers' or composers' personal traits or (to a greater extent in the case of performers) current disposition in music—such as dashing youthfulness, poetic refinement, dullness, courage, insecurity, anxiety, or austerity—realizing that these are aspects of heard *musical* character that help us build a performer-oriented or composer-oriented background characterization in Goldie's sense. The aspects are folded into, to sometimes stand out from, our *wider* experience of the music and its expressivity. Thus, while the comparison that started the line of thought still seems meaningful, it seems that the notion of music's "own" expressivity needs to be accounted for.

EMPATHY WITH A "PERSONA"?

If one takes up the suggestion that the psychological experience is of "the music," or of the music's "own" expressivity, then this potentially personifies music and runs close to attributing to it the status of a sentient being. Stephen Davies (2010) seeks to avoid this attribution—and also the personification—by conceiving of music as "wearing an appearance" and as "presenting emotion characteristics":

The claim is that the expressiveness is a property of the music itself [...]. When we attribute emotions to music, we are describing the emotional character it presents, just as

we do when we call the willow sad or the car happy. In the case of music, this “appearance” depends on its dynamic topography, as this unfolds through time. In general, music resembles gaits, carriages, or comportments that are typically expressive of human occurrent emotions, rather than facial expressions. (Davies, 2010, p. 31)

Davies does not articulate further *how* such resemblance can be given.[9] He thinks of the process of perceiving emotional expressivity as one of music-listener contagion in which “we tend to resonate with the emotional tenor of the music, much as we catch the emotional ambience emanating from other people” (Davies, 2011, p. 134). Leaving aside the many troubling aspects of this statement (physio-psychological resonance, an obscure notion of “emotional tenor,” a nonsensical combination of emotion and ambience), most troubling is the undercurrent of a fixed and predetermined content, of perception as an involuntary undergoing, and as an unconscious reception, which all come with the idea of contagion. Further, Davies’ use of the term “music” in the cited passage is, despite his protest to the contrary, not free of animation or anthropomorphization. It seems, therefore, unresolved whether the term “music” could be conceived of in an entirely non-personifying manner within an account of the emotional experience of music. In my view, such an endeavor is unnecessary, as it discounts the (animate) phenomenology of musical experience.

While music itself is not sentient (at least in its abstraction from live and lived performance), then, its *personification*—its experience of it as holding the status of a living being—seems to viably occur as part of listening. Music could not possibly hold this status without the participation of our imagination. A sophisticated conceptualization of this role of our imagination in endowing music with such being is Jerrold Levinson’s version of the persona-theory.[10] In Levinson’s view, an imagined person or fictional character, the “persona,” is the agent of, or acts out, the music’s expression. Levinson regards the persona’s expression as musically analogous to the behavioral expression of emotion: music is viewed as being expressive, in sound and to our hearing, in a way analogous to how our bodies are physically expressive to vision. The persona—which Levinson thinks potentially consists of nothing more than an idea of agency ventured by us—holds ownership of such expressive musical movements and gestures. These movements and gestures are, in Levinson’s view, metaphorically related to the performers’ movements and gestures, but (intrinsic to the process of perception) go beyond these imaginatively as well. We recall and estimate emotions on the basis of the persona’s expressive movements, without necessarily taking the emotions on as ours. However, we can and sometimes do take the emotions on as ours, entering, as Levinson puts it, by way of our “empathetic capacity [...] into the life [...] with which one is confronted” (2009, p. 417).

Levinson’s view is an attractive one. First, it is not inference-based, that is, it accounts for the immediacy in the way musical expressivity is experienced, thus refraining from over-intellectualizing the process; it does not conceive of musical experience as being disembodied. Second, it is not centrally based on arousal or contagion, that is, it offers means to understand how we can perceive emotion in the music independently of experiencing the emotion as ours, consciously so, and as part of an ongoing inquiry that is other-directed. Third, it also avoids an introspection-projection account, in which too little emphasis is placed on perception (Levinson, 1996, p. 95). Finally, it is not overly reductive: it does not abstract essential features of musical expression away, such as timbral expressivity, and avoids treating the production process, material, and situation as transparent to, or entirely separate from, listening.

What makes Levinson’s account still more attractive is that it gives a lead in the right direction regarding the question of whose emotions we are experiencing. On the one hand, the persona’s emotional expressions appear to be ordinary, that is, not ours. We enter “into the life” with which we are “confronted,” empathetically “recalling” and “estimating” emotions from the persona’s perceived expressions. This might at first sight appear to be a version of the views that believe the emotions to be the composers’ or the performers’. But within the “estimation,” Levinson subtly introduces an active participation of the imagination to the process of perception which could have an effect on the perceived emotion. Levinson argues that the creation of an emotional quality is not entirely unidirectional: not only do the expressive signs of emotion displayed by the persona turn into felt emotions (via a process of simulation), but there are:

at least three main routes by which an expressive passage of music may produce affect in the listener. One involves the listener consciously recognizing and identifying a passage’s E-ness [E being a particular emotion], and then reacting to that, empathetically, sympathetically, or antipathetically. Another involves the listener’s subconsciously grasping a passage’s E-ness, for example, by modelling its gestures mentally, though

without this eventuating in an intellectual recognition of the sort of emotion being modeled. And the third involves the listener, with his or her particular set of expectations, merely producing the passage's musical progression and having induced in him or her various small-scale reactions or microfeelings [...], which naturally feed back as data into the listener's apprehension, consciously or subconsciously, of the passage's expressiveness and thus finally influence what emotion the passage is heard as an expression of. Feeling response to music is thus not always the result of voluntary identification with a musical persona's emotion construed already as such-and-such. Equally often, certain sorts of feeling response – ones I call subemotional – will precede and fuel such identification with a persona, as well as influence how that persona's emotion will be construed, or as what. (1996, p. 114)

This third “route” could, therefore, either just support the expression of an emotion that is in line with the other two routes; or it could also lead to emotional “responses” (originary to the listener and potentially different from those of the first and second routes) to those subemotional feeling responses[11] which “influence” an emotion then felt to be the persona's.

FELT ASPECTS OF MUSICAL EXPERIENCE, ACTIVE PERCEPTION, AND EMOTION

Implicit in this mutual influencing between the listener's perceptions and responses within Levinson's three main routes of affect production, but unexplored by him, is—if thought through—a radical notion of emotional “co-constitution.” The co-constitution takes place within the act of perception; it is integral to it. To see this affords a fresh understanding of auditory perception as *doubly* active. Auditory perception, as I shall argue, is active in two ways that are intertwined with each other: one, our body is active in it inasmuch it brings (rudimentary) tactile and kinaesthetic knowledge related to the heard into the perceptive experience, *extending* auditory perception cross-modally; two, our bodily imagination is active in it, in *interpreting* the heard and rudimentarily felt further in bodily terms.[12] Taken together, I shall argue, the felt aspects of auditory perception and musical bodily interpretation form part of a process in which (together with the listener's background knowledge, expectations, and other cognitive and perceptive acts that prime, frame, and situate the listening experience) emotions are individuated. In the next section, I then turn to elaborating on how within this doubly active perceptive act, musical expressivity is pluralistically constituted.

Emotions have a felt component: the heat of anger, rigidity of pride, weight of sadness. The felt component is such an important part of the emotion that William James (1884) famously thought that emotions were nothing *but* such bodily feelings. However, even though such felt components arguably do not, against James, exhaustively define an emotion (one argument being that emotions can, after Freud, be unconscious, whereas bodily feelings are *per definitionem* conscious), they are neither just an expression of a cognitive state that forms around an evaluative judgment,[13] feelings can be viewed as being parts of emotions, even if this entanglement is extremely difficult to conceive (Peter Goldie argues towards a category of “feelings towards” [2000, pp. 72–83]). I shall now examine how bodily feelings emergent from the musical experience can become part of and contribute to the individuation of emotional episodes.

As already sketched, there are two forces at play out of which bodily feelings emerge in sonic perception: on the one hand there are cross-modal sensations integral to auditory perception. The cross-modal sensations are dynamic and somatic, i.e. of the body and temporally extended yet cohesive—they occur on the level of brief sonic events as well as on the level of entire sonic gestures. On the other hand, there is a bodily hermeneutic, an active and partly voluntary process of bodily interpretation, geared at the heard and its ephemerally felt (or even unconsciously active) cross-modality. In other words, there is an aspect of the auditory experience that affects bodily memory and imagination, and a capacity and readiness on behalf of a listener to engage in bodily “readings” or interpretation. The former is part of a perceptive capability the *awareness* of which can be improved, the latter is a largely culturally acquired and nurtured imaginative habit and capacity.

My reasoning in support of my view is twofold. First, on the cross-modality of sonic experience: we have embodied knowledge of sonic–tactile–kinaesthetic correspondences from our everyday life. We know what it feels like to make sounds, from everyday movements and contact with the world. This is first-hand knowledge, and it is sonically, kinaesthetically, and haptically fine-grained. It is embodied, tactile-

sonic knowledge. Almost any daily action we engage in—any swiping, scratching, sliding, stroking, slapping, clapping, pushing—makes sounds or soundings, and those soundings are *felt* soundings. We have rich and intimate bodily knowledge of the variation of sound that goes hand in hand with the variation of gesture, and the variation of its feel (including, say, pressure levels and speeds of movement). This is what I have called “corpophonic” knowledge. My claim is, then, that upon hearing sounds not actually made by us, the absent can become present—our corpophonic knowledge can make itself felt actively in what we hear. The presence generated by the implication of corpophonic knowledge is often vague and ephemeral; sometimes, however, it is rather pronounced (e.g. part of the visceral “effect” of a film’s soundtrack).[14]

Second, a bodily hermeneutic reaches into and links up with the cross-modal experience: in looking at an artwork, for example, we engage in a visual interpretation of what we see; we see, for instance, a figure in those painterly strokes, and we even see someone in that figure. We enliven the seen with our bodily imagination, extending it as a way of making sense of it, even extending it with feelings (of a figure’s threatening confinement, say, or its exposed, endangered placement and empowered pose, such as in Caspar David Friedrich’s *Der Wanderer über dem Nebelmeer*, 1818). This, I claim, is also true for hearing. This claim is not new, of course, as it is closely related to the essential notions of “hearing in” and of musical movement. My claim, however, refines and departs from the existing notions in that it grounds the aptness of an interpretation in the cross-modal inklings, and in treating the entire act as an act of interpretation (rather than essentializing the idea of musical motion). Rather than further unfolding the reasoning behind my view,[15] I shall here discuss its implications, as they unlock the domain of musical empathy.

The view supports three important claims. Firstly, our listening at the felt level immediately attends to the performed sound, and only thereafter to the performance—and not necessarily to the latter. This is not to say that performance isn’t expressive—it certainly is—but it is to say that our experience at the felt level is not primarily based on a recreation of the performance’s expressivity via its simulated doubling. Of course we *can* hear the performer’s performance, her attention to detail or negligence of it, her effort or effortlessness, her bodily attendance to the sound making, her relation to the instrument, and so forth. Yet, we hear the performance in the sounds as a consequence of hearing them in terms of *our* bodies first, from which we embark on a more elaborate bodily interpretation and empathetic inquiry.

Secondly: since hearing the performance in the sounds is, in this view, *not necessary* for the sounds to be perceived as bodily feelings, it is also seen that the ownership of any emergent agency is, at first, *indeterminate*. The feelings’ dynamics produce an agency that—while being a consequence of the performer’s sound-making—takes place in our lived bodies. As such, the agency is a synthesis of the performer’s and ours, without belonging entirely to either. Because of this initial indeterminacy of agential ownership, the perceptual process leading to emotional individuation permits our taking different stances, viewpoints, or possessions of the agency. We could imagine being the originators of the agency (identifying, when listening to particular passages in Stravinsky’s *Rite of Spring* for example, with the viciousness and anger we may feel in the music), or we can imagine being subjected to it (we could be shaken up by the viciousness and anger), or we can remain distanced (recognizing and contemplating the viciousness and anger). In other words, the individuated emotion may be construed as being our own, or as that of an other, and that construction depends on the way the music is staged as much as on some fundamental inclinations and sensibilities of the listener.

A third claim concerns the emotional content that emerges from the process of bodily perception and interpretation: Peter Goldie (2000), in his *The Emotions*, discusses a way in which mundane actions are expressive of emotions without themselves being motivated by these emotions:

The ordinary action becomes, so to speak, infused with expression of emotion. Leaving the room in a huff, you do not just shut the door, you *slam* it; arguing with your husband at breakfast, you do not slice the bread, you *hack* at it; angry with the person at the other end of the phone, you ‘throttle’ the receiver. [...] In such cases as these, where expression of emotion is, as I will put it, *adverbial*, there will be distinct vectors of explanation for verb and for adverb: the perfectly ordinary action, picked out by the verb (the door-shutting, the bread-slicing, and so forth), is explained by reference to a belief and a desire which have no reference to an emotion; and the expression, picked out by the adverb (the violence of the shutting, the vigorousness of the slicing, and so forth), is explained by reference to a wish. (2000, pp. 133–134)

What Goldie reveals is that the character of a gesture made for one purpose often becomes modulated by the expression of an emotion related to a latent wish, a wish that does not *motivate* the actual gesture itself, but *colors it in*. Goldie points out that “much of one’s emotional life is expressed in this way” (2000, p. 134), a way which, notably, does not exclusively or even primarily proceed via the recognition of certain standard facial expressions. And, as Goldie elaborates, not all adverbial expression needs to relate to a wish, but may be “due simply to the agent’s being in the grip of an emotion” (p. 134).[16] Put shortly, any movement one makes can, to some degree, be made in a way that is adverbially expressive of character, without this being its purpose (such as the enraged slamming of a door, or the affectionate casting of a glance). The felt quality of sonic shapes, I claim, is of this adverbial kind. Its quality is, in part, given by our bodily knowledge of the emotional colorings of our own actions, and in part given in our application of the bodily hermeneutic. It is due to both bodily involvements that we feel the sonic shapes as (co-constituted) adverbial expressions of emotions.

A musical passage that encompasses a development of dynamic intensification might offer, thus, tactile inklings of a pushing gesture (going temporally and timbrally *across* the passage), which can be taken up by a bodily interpretation to feel as a push (against resistance) traversing, say, one’s spine, chest, and arms (a push which could be *danced* as such). This enacted push would at first be felt as a push “in” the listener, yet its agency might be attributed to the listener herself or to another, fictional or real agent. The push would have a specific character—it might be calm, decisive, insisting, graceful, vicious, and so on—and, within the context of its musical situation and embedded in a broader structure or narrative, it could be heard *and experienced* as part of an episode of firmness, anger, or triumph. If, for instance, the pushing gesture is then followed by a floating gesture, the combination could be interpreted as a “letting go.” It could nurture or help individuate an imagined episode of abandoning, liberation, or a turn from harsh rejection to affectionate invitation. The point in my giving this broad example is, of course, not normative: it is not to prescribe, but to suggest some potential readings and experiences as an illustration of the way in which sounding materials, cross-modal perceptions, bodily hermeneutic, and ongoing emotional narrative interrelate and intertwine.

At this point one might ask: how, beyond dynamic increases and decreases, does the bodily knowledge tied to the everyday sound-world of noises we make relate to the world of pitches, textures, melodies, and harmonies encountered in music? The briefest answer I can give for reasons of scope is: by two cases of likeness. The likeness, unlike the “analogy” between *behavioral* expressions and *musical* expressions of emotion discussed by Davies and Levinson, [9] is, in the first case of the bodily inklings, a likeness in sound being the medium: we are (in both noise and music) perceiving timbral variations. The bodily inklings then, in the second case, are enlarged via bodily interpretation (here, we are experiencing both in tactile–kinaesthetic terms). In combination, then, when hearing a melodic figure for example, we can hear a gesture going through it, the emerging feeling of which corresponds to the sounds’ dynamic shading and timbral variations, which are like those of the noises we make corpophonically. The likeness stands out when bracketing the discreetness of the pitch variation by not *attending* to their discreetness. Another example from the realm of vocal experience: the voice we hear in a well-played *cantabile* on the piano is, first and foremost, *ours*, attending to the timbral identity of sustained parts of the piano’s sound while disregarding the inherently percussive attacks of the individual piano notes—disregarding them despite their acoustic and performative presence.[17] The likeness is one of articulation also: salient moments in the shapes of sonic motions will be salient in bodily terms.

EMOTIONAL CO-CONSTITUTION AND THE “MUSICAL OTHER”: REINTERPRETING THE PERSONA

In the given example of the passage in which a listener may hear a push of a certain character, both the pushing action (in its emotional character or coloring) and its participation in the individuation of an emotion are *pluralistically* constituted.[18] The passage comes to be by being composed, performed, and heard; yet, crucially, its being heard as a push with a particular emotional quality that feeds into and forms part of a particular emotional episode is itself composed by a potentiality that lies in the choice of material (and its cultural and historical charge), choices of its performance (and their relation to performance practices), and choices made when the listener(s)—including performer as actual and composer as imaginative listeners—engage *their* bodily hermeneutic. The hermeneutic and imaginative horizon of each person involved makes a difference and contributes to the listening experience, which is, accordingly, not one in which an objectual content is crafted by a composer, instantiated by a performer, and passed on as a

finished entity to the listener. Rather, it is one in which each listener, from within very different situations (e.g. in the performer's case from an ongoing bodily engagement with the instrumental and sonic environment), may engage in bodily interpretation and emotional experience.[19]

Listening in the outlined manner into the realm of bodily experience, listeners tap into past encounters with others: individual and social encounters, cherished ones, forgotten ones, disliked ones, and traumatic ones. This *embodied* layer of social entwinement in musical experience is, in my view, the "deepest" such layer.[20] In applying my bodily readiness to the sound, in making *my* body present in it, co-creating its agency, in listening from the body, I make present my past encounters with others and the world. This "making present" is part of the way in which the body actively re-members the heard, turning it into current experience. This literally re-membered otherness, *together* with the identified indeterminate agency, forms a musical other.

The understanding reached of the presence of a musical other, and of a co-constituted emotional experience, enables a reinterpretation of the persona's genesis, a reinterpretation of what it is and how it comes to be. With the persona's feelings emerging from (and through) our bodies (though not necessarily in terms of conscious possession), it is now clear that the persona is an attribution, rather than an entity whose expression is independently constituted from the listener's psyche. In other words, the persona is not an entirely predefined entity *with* whom we engage empathetically, but it comes into existence through the attribution of the (initially underdetermined) emotional ownership to an imagined agent that is not us.[21] Sometimes this attribution might go hand in hand with an act of repression: refusing to acknowledge ownership of, say, a profound sadness or existential despair, and of memories of encounters and events which have nurtured and given substance to such emotions, we might find ourselves "recognizing," in a detached manner, "the persona's emotions." At other times, the persona might be an imaginatively entertained combination of our own outright psychological experience with the thought of a character or agent. The thought in question could be part of an ongoing narrative, a listening situation, or framed by background knowledge. It could contain whoever captures our imaginative interest—be it the composer, performer, musical character, or a fictive person, including the personification of "music."

Once the ownership of a co-constituted emotion is affirmedly that of an imagined agent, the listener can embark on a shift of perspective towards the musical other. If that shift succeeds, if one loses oneself in the music, "becoming the music" (with "music" being an umbrella term for the varying agencies), then *this*, I think, marks musical empathy. If empathy is an act in which we inquire into another's behavior and situation, their bodies and, in particular, their faces, then music's "face" or physiognomy is a compound entity: born out of a (musically prepared) confrontation with the often unnamed and ineffable traces of others *in us*—of life as it affects us, of individual encounters and encounters with society, culture, and nature. Musical empathy is empathy with a protean agency, an agency whose sometimes mundane and sometimes bizarre body and psyche emerges, profoundly co-constituted, from ours. If, in contrast, *no* shift of perspective occurs, we might, in the experience, just be centrally imagining ourselves.

THE DIALECTICS OF MUSICAL AND SOCIAL EMPATHY

The picture arrived at is this: when a musical work is performed before an audience, the event involves a complex of soundings, listenings, imaginations, and encounters. A listener may hear (1) her self, (2) an other through her self, (3) present others, and (4) the sounding environment in the sound. The listener's experience of a thus fourfold co-constituted emotion is paradoxical: it is simultaneously hers and not hers. Spurred by the paradox, she may shift or drift (Gritten, 2006; see note 20) between attributions often within the course of a single listening experience.

While all listeners in music—makers and audiences—at some level can and sometimes do engage empathetically with *music* as their other, empathetic interest may, however, also be social. Listeners could be socially empathetic by turning their interest to the personal and social situations, feelings, and emotions of performers and composers, or other listeners, and in doing so may exercise empathy (with different degrees of success in constructing characterizations and perceiving personal narratives). Performers may (bidirectionally) empathize in an ensemble,[22] or with a *textually* defined character they embody, and to whom, in Erin Heisel's (2013) fitting words, they give voice.[23] Listeners, performers, and composers can also empathize with another listener whom they know well, like a close friend sitting close by at a concert, or with someone specific we *know* or *imagine* the music to be about (like Monteverdi's *Lamento d'Arianna*) or, likewise, an entire social group, for example in religious, patriotic or Nationalist music,

“political” music (such as protest song), celebratory or consolatory music, youth musics, or music of the diaspora.

Such socially empathetic acts (invited by the music and, sometimes rather broadly, in line with its expressivity) can feed back on the frame of our perception of the work or performance. It can be part of what frames and primes our emotional reception of it. Conversely, socially empathetic acts can also be based on the musical experience. The two—socially empathetic act and musical empathy—are thus distinct but dialectically entwined.[24] The dialectic may act as a convergent force, supporting shared experience, like in the case where both performers and listeners embody a character such as Ariadne’s.

CONCLUDING REMARKS

Musical empathy as empathy with the musical other, I have argued, proceeds through the lived body and involves a bodily hermeneutic. It is supported by, and in turn supports, social empathy with those factually or imaginatively involved in the musical event. What does the reached understanding imply? Implications for empirical research are, on the general level, those lucidly presented by Stephen Davies:[25] a philosophical analysis can sharpen the concepts under which research questions and settings are designed. Further, it can contribute to the refinement of concepts under which experimental results (within areas such as cognitive musicology, performance research, music psychology, music therapy, and pedagogy) are interpreted—a concrete example is the re-interpretation of the results of research on auditory mirror-neurons I offer in section 2.[26] Turning to the philosophical implications: understanding musical empathy as empathy with the musical other offers a refined view on the genesis of the musical persona. Conceiving the persona as co-constituted throws light on how body and mind, perception, and imagination are unified in musical experience, and on the profound psychological and social entwinement in music. By listening from our bodies and through a musical art of emotional co-constitution, we may encounter and embrace an otherness within and without, which we more often than not ascribe to “the music,” perhaps so as to bear the intimate personal relevance of the experience.

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NOTES

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[2] See, for example, Hoffman (2000, p. 30): “The key requirement [...] is the involvement of psychological processes that make a person have feelings that are more congruent with another’s situation than with his own situation. The empathy-arousing processes often produce the same feeling in observer and victim but not necessarily.” Psychological involvement and “having feelings” is key, and the expression “getting a sense” I use above includes, with Edith Stein (1989, p. 60), “a constitution of the sensual level of the foreign physical body.” Another person’s sadness may thus be felt *in* her countenance (Stein, 1989, p. 6).

[3] For instance Roger Scruton’s “dance of sympathy” (Scruton, 1997, p. 354f.), and Noel Carroll’s notion of “sympathetic attention” (Carroll, 1999, pp. 170-173).

[4] For example Scherer (2004, p. 7). Levinson (2009, p. 421) includes antipathy: “The aesthetic appreciation of music ideally involves not merely perceiving, recognizing, or remarking the expressiveness of music, whatever the mechanism of that may be, but *responding* emotionally to that expressiveness, whether empathetically, sympathetically, antipathetically, or in some combination of those ways.” See also Levinson (1996, p. 94).

[5] In centrally imagining oneself one *imagines* experiencing a narrative (Goldie gives the example of imagining swimming in dangerous waters) from one's own, central point of view, with the imaginative process being perceptual (Goldie, 2000).

[6] It would require an extended argument to show that performers need *at no stage* feel the emotions they present in order to make Davies' claim stronger; however, I shall not rely upon such a claim in my argument.

[7] Tom Cochrane (2009, pp. 193, 198-199) offers an extensive argument. See also Godøy (2010, pp. 108-113), Cross (2010), and Cox (2011) for varieties of this widespread view.

[8] "During the creative activity, an exaltation will fill [the composer] such as can scarcely be thought superfluous for the release of the beautiful from the depths of the imagination. That this exalted mood, according to the idiosyncrasy of the artist, takes on more or less the coloration of the emerging artwork; that it will flow sometimes vehemently, sometimes moderately, but never with such overwhelming passion as to thwart artistic production; that lucid deliberation maintains, during all this, at least equal importance with inspiration: These are well-known rules [...]. The supremacy of feeling, which people so readily attribute to music, seems nowhere more misplaced than where it is presupposed of the composer in his creative activity" (Hanslick, 1986, pp. 45-46).

[9] Central to Stephen Davies' contagion-based approach is his idea that music presents the symptoms of emotion (Davies, 2011, p. 147); it remains obscure how we proceed from perceiving symptoms—even if these are present in an atmosphere rather than a person—to actually feeling the musical gestures' expressivity. As Jerrold Levinson points out: "There is no independent conception of, and no access to, what Davies calls musical emotion-characteristics-in-appearance [...] There is no translation rule from behavioral appearance-characteristics to musical appearance-characteristics" (Levinson, 1996, p. 104). For an eloquent critique of Davies' central argument, see Levinson (1996, pp. 102-105).

[10] A succinct version of Levinson's account is found in his *Contemplating Art* (Levinson, 2006, p. 85).

[11] Levinson (1996, p. 113) argues that such "microresponses" produced by music can be ingredients in emotions: "Even if they do not amount to the full experiential component of standard emotions, such reactions obviously bear many relations of affinity or compositionality to emotions and other intentional states of a full-fledged sort; they are ingredients in, and suggestive of, such states, even if not by themselves uniquely indicative of any."

[12] This understanding of perception as active draws on both phenomenological and hermeneutic thought.

[13] My description of the various conceptualizations of the role of feeling in emotion draws on John Deigh's *Concepts of Emotions in Modern Philosophy and Psychology* (Deigh, 2010).

[14] My view of the somatic introduction of tactile and kinaesthetic (proprioceptive) qualities to what we hear is related to Edith Stein's concept of "conoriginarity" (translated by Waltraut Stein as "con-primordiality")—one of the central concepts in her phenomenological analysis of empathy (Stein, 1989, p. 57). Stein, decades before Merleau-Ponty's *Phenomenology of Perception*, argues towards the cross-modality of visual perception, observing that "not only do we see the table and feel its hardness, but we also 'see' its hardness. The robes in van Dyck's paintings are not only as shiny as silk but also as smooth and as soft as silk" (p. 44). Further, to Stein, not only are tactile qualities visible, but another's perceptual experiences and emotional states are given to us in this way: "the foreign living body is 'seen' as a living body" (p. 57).

[15] For further reasoning on issues of cross-modality and active perception see Peters (2012, 2013, forthcoming).

[16] Both cases of adverbial expressivity are of interest in the present context.

[17] Cf. Collingwood, who in his *The Principles of Art* conceives of what I describe in terms of disregard as “disimagination” (Collingwood, 1938, p. 143).

[18] The constitutional dynamic may be a substantial factor in why music, in Anthony Gritten’s sharp characterization, “drifts” (Gritten, 2006, pp. 104-119, esp. 106, 107, and 112)—with this meaning a “loose relation” between music and listener, one which balances “possession and anonymity” of, for instance, musical gesture.

[19] It is due to a certain measure of intersubjectivity introduced by our shared bodily being and shared enculturation, and other common ground, that the experiences of the participants may sometimes be shared. When they are, we rationalize the shared experiences, in hindsight, as successful acts of communication and that which is shared as “content.”

[20] Other layers are formed by the social situatedness of listening, and by social connotation.

[21] “Persona” is an apt name for this *only* if it is granted that it could, for instance, refer to *nature* or *collective unconscious*, as well as (as its name suggests) to an anthropomorphic being. “The music” is another possible name for what I, however, shall here call and consider as the “musical other.”

[22] Caroline Waddington’s finding that co-performer empathy “consisted of three main components: a *shared approach* to interpretation and to working together, an *intentional awareness* of how colleagues are operating on both a musical and a practical level, and a *special connection* between players” (Waddington, 2013, p. 333) displays the presence of both categories developed here, social and musical empathy, with “special connection” perhaps most closely referring to musical empathy.

[23] “Singers enter the lives of the characters they portray [...]. Empathy in the work of singers becomes a humanizing process of embodiment whereby the singer, in a very real and meaningful way, gives the character voice” (Heisel, 2013).

[24] Roland Barthes (1985, pp. 299-312) gives a fascinating analysis of his experience of the “Schumannian body” that is acutely aware of both sides of the dialectic and combines an exploration of how a bodily hermeneutic could be articulated (in the music and in his reflection), and how it intertwines with Barthes’ knowledge of and empathetic inquiry towards Schumann.

[25] Davies (2010, pp. 15-20): “Philosophical questions [...] arise from deep conceptual confusions or subtleties, and [...] it is the purpose of philosophy to untangle these knotted skeins. [...] The usual scientific methods of inquiry typically presuppose certain answers to [philosophical questions], and the use of such approaches thereby prejudices the outcome of the study (p. 16)”; and “philosophical analyses must go beyond the facts in resolving the problems, paradoxes, and inconsistencies they can seem to generate. What is needed often is not more facts but a clarification of the issues raised by those that are available. The most familiar notions can raise conceptual puzzles, and then it is not more facts but a deepening of our current understanding or new interpretations of the resident data, that is needed. (p. 17)”

[26] Suggestions regarding potential applications for empirical research would require dedicated work and can in the present context only be tentative: two main components of the argument (the cross-modal involvement of corpophonic knowledge in auditory perception, and the practice of bodily interpretation) could, perhaps, be individually testable—the former by further cross-modal research, for instance, and the latter, potentially, in a meta-analysis of bodily interpretation evident in musicological readings, particularly in the hermeneutics part of the new musicology, music semiotics, critical musicology, or popular music studies discourses.

REFERENCES

Barthes, R. (1985). Rasch. In R. Barthes (Ed.), *The responsibility of forms: Critical essays on music, art and representation* (pp. 299-312). Berkeley: University of California Press.

- Carroll, N. (1999). *Philosophy of art: A contemporary introduction*. London: Routledge.
- Cochrane, T. (2010). A simulation theory of musical expressivity. *Australasian Journal of Philosophy*, 88(2), 191-207.
- Collingwood, R. G. (1938). *The principles of art*. Oxford: Oxford University Press.
- Cox, A. (2011). Embodying music: Principles of the mimetic hypothesis. *Music Theory Online*, 17(2).
- Cross, I. (2010). Listening as covert performance. *Journal of the Royal Musical Association*, 135(S1), 67-77.
- Davies, S. (2010). Emotions expressed and aroused by music: Philosophical perspectives. In P. N. Juslin & J. A. Sloboda (Eds.), *Handbook of music and emotion: Theory, research, applications* (pp. 15-43). Oxford: Oxford University Press.
- Davies, S. (2011). Infectious music: Music-Listener emotional contagion. In A. Coplan & P. Goldie (Eds.), *Empathy: Philosophical and psychological perspectives* (pp. 134-148). Oxford: Oxford University Press.
- Deigh, J. (2010). Concepts of emotions in modern philosophy and psychology. In P. Goldie (Ed.), *The Oxford handbook of philosophy of emotion* (pp. 17-40). Oxford: Oxford University Press.
- Godøy, R. I. (2010). Gestural affordances of musical sound. In R. I. Godøy & M. Leman (Eds.), *Musical gestures: Sound, movement, and meaning* (pp. 103-125). New York: Routledge.
- Goldie, P. (2000). *The emotions: A philosophical exploration*. Oxford: Oxford University Press.
- Gritten, A. (2006). Drift. In A. Gritten & E. King (Eds.), *Music and gesture* (pp. 104-125). Farnham: Ashgate.
- Hanslick, E. (1854/1986). *Vom Musikalisch-Schönen: Ein Beitrag zur Revision der Ästhetik der Tonkunst*. (G. Payzant Trans.). *On the musically beautiful: A contribution towards the revision of the aesthetics of music*. Indianapolis: Hackett Publishing Company.
- Heisel, E. (2013). Empathy as a humanizing process in music performance. Paper presented at *SEMPRE Music and Empathy conference*, University of Hull, 8-9 November, 2013.
- Hoffman, M. L. (2000). *Empathy and moral development: Implications for caring and justice*. Cambridge: Cambridge University Press.
- James, W. (1884). What is an emotion? *Mind*, 9, 188-205.
- Kohler, E., Keysers, C., Umiltà, M. A., Fogassi, L., Gallese, V., & Rizzolatti, G. (2002). Hearing sounds, understanding actions: Action representation in mirror neurons. *Science*, 297(2), 846-848.
- Kuschnir, B. (2014). Ausdruckvolles Spiel auf der modernen Konzertgeige. Paper presented at *Instrumentale Technik und musikalischer Ausdruck Symposium*, University for Music and Performing Arts Graz, 26 May 2014.
- Laurence, F. (2008). Music and empathy. In O. Urbain (Ed.), *Music and conflict transformation: Harmonies and dissonances in geopolitics* (pp. 13-25). London: I. B. Tauris.
- Levinson, J. (1996). Musical expressiveness. In J. Levinson (Ed.), *The pleasures of aesthetics: Philosophical essays* (pp. 90-125). Ithaca; London: Cornell University Press.

- Levinson, J. (2006). Musical chills. In J. Levinson (Ed.), *Contemplating art: Essays in aesthetics* (pp. 220-236). Oxford: Oxford University Press.
- Levinson, J. (2009). The aesthetic appreciation of music. *British Journal of Aesthetics*, 49(4), 415-425.
- Peters, D. (2012). Touch: Real, apparent, and absent: On bodily expression in electronic music. In D. Peters, G. Eckel, & A. Dorschel (Eds.), *Bodily expression in electronic music: Perspectives on reclaiming performativity* (pp. 17-34). New York: Routledge.
- Peters, D. (2013). Haptic illusions and imagined agency: Felt resistances in sonic experience. *Contemporary Music Review*, 32(2-3), 151-164. Open Access: <http://dx.doi.org/10.1080/07494467.2013.775815>
- Peters, D. (forthcoming). Sonic tactile gestures and daily urban listening. In A. Wilson (Ed.), *Listen! Sound worlds from body to city*. Newcastle: Cambridge Scholars Publishing.
- Rabinowitch, T., Cross, I., & Burnard, P. (2013). Long-term musical group interaction has a positive influence on empathy in children. *Psychology of Music*, 41(4), 484-498.
- Scherer, K. R. (2004). Which emotions can be induced by music? What are the underlying mechanisms? And how can we measure them? *Journal of New Music Research*, 33(3), 239-251.
- Scruton, R. (1997). *The aesthetics of music*. Oxford: Oxford University Press.
- Stein, E. (1917/1989). *Zum Problem der Einfühlung*. (W. Stein Trans.), *On the problem of empathy*. The collected works of Edith Stein Vol. 3. Washington Province of Discalced Carmelites.
- Waddington, C. E. (2013). Co-performer empathy and peak performance in expert ensemble playing. In A. Williamon & W. Goebel (Eds.), *International Symposium on Performance Science* (pp. 331-336). Brussels, Belgium: European Association of Conservatoires (AEC).