

Musicality of Coordinated Non-representational Forms of Vitality

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In line with the view of ethnomusicologist and social anthropologist John Blacking (Blacking, 1995, p. 224) that "... every known human society has what trained musicologists would recognise as 'music'" although "there are some that have no word for music or whose concept of music has a significance quite different from that generally associated with the word 'music'," cognitive musicologist Ian Cross, who is oriented at ethnomusicological research, insists on the notion of universal musicality (Cross, 2009, p. 182). On the other hand, pop music researcher Diederich Diederichsen claims that pop music is not so much a form of music but rather a constellation of different media channels, i.e. "pictures, performances, (mostly popular) music, texts, and narrations tied into real persons" (Diederichsen, 2014, p. xi; translated by the author), social spaces and behavioral systems, of which music is only one part. Diederichsen's concept of music seems to be a narrow one that is limited to sonorous phenomena based on compositional intentions. Taking into account what Diederichsen refers to as pop music as well as non-Western musical practices including musical rituals that do not display a clear boundary between speech and music, however, allows us to critically scrutinize the narrow concept of music.

Cross conceives of music and language as complementary media for communicative interaction (Cross, 2008, 2009, 2014) and claims that musical interaction overlaps in function with the phatic speech register, suggesting that musical interaction and phatic conversation are manifestations of a superordinate domain of affiliative communicative interaction (Cross, 2022). Moreover, he argues that while musical interaction exhibits many of the attributes of affiliative interaction, in speech only one register, namely the phatic one used in "free, aimless, and social intercourse" (Malinowski 1923, cited from Coupland et al., 1992, p. 208), is affiliative (Cross, 2022, p. 3). According to social anthropologist Bronislaw Malinowski, communicative interaction with the phatic function serves as a type of communicative exchange that is not aimed at communicating ideas but primarily establishes social relationships, such as constituting social groups, or confirms the participants' group affiliation. This kind of phatic function has been integrated into some forms of ritual communication such as *biga taloi*, a form of greeting, and *biga sopa*, a kind of indirect speech for jokes or lies, among the Trobrianders of Papua New Guinea (cf. Senft, 2018). *Biga sopa* is used in everyday conversation, in small talk, when flirting, in public debates, and in songs and stories as a rhetorical device to avoid possible conflicts and to relax the atmosphere of the conversational situation. It provides a forum where breaking taboos is allowed (cf. *ibid.*) Taking into account Cross's suggestion that affiliative interaction tends to have features that he would describe as musical, such as a tendency for the behaviors of interactants to be adaptively coordinated or aligned in terms of form and timing (Cross, 2022, p. 4), the following questions could be raised concerning the present paper: Can speech that is characterized by the phatic function be described as "musical" and even as "music" in a broader sense? Can other modi of affiliative communicative interaction such as non-verbal gestural interaction then also fall into the category of music?

Another point worth noting when addressing a close relationship between music and speech is whether the idea that music, unlike language, bears no extra-musical meanings, which has been widespread in contexts of formalist aesthetics, is tenable. Concerning vocal music, some scholars assume that its extra-musical meanings lie in its verbal or textual basis and hence they focus on absolute music that does not entail any verbal components. However, it would be important to carefully discuss whether instrumental music does not bear any extra-musical meanings, examining how extra-musical meanings of music are determined and discussed. Do extra-musical meanings of music not differ from representational meanings of a sign that are often assigned to a linguistic sign? This paper first addresses those questions, focusing on the extent to which phenomena and behaviors that are described as “musical” are meaningful, and then suggests a broader concept of musicality and music.

Does instrumental music bear no extra-musical meanings?

With the beginning of absolute music in the history of Western Art Music, extra-musical meanings of music have been contrasted with intra-musical meanings of music, with an approach to the latter being called “absolutist” (Meyer, 1956, p. 1). Music philosopher and music theorist Leonard Meyer places the former on a level of referential meanings, suggesting that “music also communicates meanings which in some way refer to the extra-musical world of concepts, actions, emotional states, and characters” (ibid.). It is, however, not clear what Meyer precisely means by “reference,” since concepts and emotional states are representations whereas actions and characters could be extensions rather than representations. In his treatise *Emotion and Meaning in Music* (1956), Meyer discusses referential meanings only in passing and mainly focuses on his own absolutist approach to musical meaning. It is only in the last chapter of his work (ibid., p. 258ff.) that he goes into more detail about the reference to the extra-musical world, which he specifies as “connotation.” Among musical connotations, he counts culturally widespread associations such as religious belief, death, or emotional states that music refers to. Meyer does not consider the extensionality of music in this context. Only in his reference to a relationship of similarity between “musical mood gestures” and “behavioral mood gestures” can we detect a hint at an extensional meaning of music but he does not elaborate further (ibid., p. 268). So the term “reference” seems to be used by Meyer for a semantic or symbolic relation to what is not a sign itself in general, without specifying whether it is concerned with a representational or an extensional reference.

While a linguistic sign generally possesses a representational reference, and therefore both an extension and an intension (cf. Frege, 1892), the question of whether music has a representational meaning is contentious. In contexts of instrumental music, program music is often assigned extra-musical meanings. But those extra-musical meanings are extensional meanings, i.e. referential meanings, rather than representational meanings. Take for example Bedrich Smetana’s symphonic poem *The Moldau*: To our ears, some of its musical passages have a “rippling” quality. In this case, we could argue that their extension consists in the set of all events that have some property such as swirling water, which bring forth events that are rippling causally. Although musical passages do not “ripple”, they share properties with rippling events (cf. Koelsch et al., forthcoming). Such extensional meanings are also found in the first movement of Mahler’s first symphony. The two succeeding tones, a falling perfect fourth interval often associated with the cuckoo call, refer to cuckoos since cuckoo calls have a property similar to the musical property of the falling perfect fourth interval. In the course of the first movement, however, this musical element is transformed into a bass figure, which is no longer heard as a salient musical feature, i.e. as a falling perfect fourth, due to being embedded in a harmony, so that in this case it no longer has cuckoos as its extension.¹ This example shows that even in absolute music, musical components can partially have extensional extra-musical meanings. In his treatise *How do we hear music? Principles of musical aesthetics* [*Wie hören wir Musik? Grundlinien der Musikästhetik* (1911)], Hugo Riemann characterizes such a reference as an “objectification of a subjectified object” (Riemann 1911, p. 72; translated by the author) through which musical components “appear not as an expression of the artist’s life, but as [...] forces of nature, scenes, landscapes, etc.” (ibid., p. 71).

Regarding absolute music, the formalist position has articulated either the claim that music has no meaning at all, “only forms, regulated combinations of tones and tone rows to form” (Nägeli, 1826, p. 32; translated by the author), or that musical meaning is a “syntactically generated meaning” (Faltin, 1978, p. 20; translated by the author), which cannot be justified within the framework of a semantic theory. Musicologist Peter Faltin regards semantics as a theory of designation (*ibid.*, p. 13), within whose framework music is considered “asemantic” or “meaningless” (*ibid.*, p. 10). Therefore, he suggests studying musical meaning outside of semantic theories, since he assumes that musical meaning, which arises through the relation of musical elements to one another, is not supported semantically (*ibid.*, p. 20) but constituted by musical syntax. He regards musical syntax as “a meaning making process whose experienced products are the meanings of music” (*ibid.*, p. 25). His assumption that without musical syntax, there would only be “the chaos of an amorphous set of sounds” (*ibid.*), offers a basis for discussion. However, the question that is raised is whether there can be a unit of music whose meanings can be grasped without taking into account the relation of musical elements to one another, since musical forms that arise through the relation of musical elements to one another build musical units, and their meanings should be examined when investigating the meanings of music. Eduard Hanslick is one of the scholars who express this idea, in his seminal treatise *On the Musically Beautiful: A Contribution to the Revision of the Aesthetics of Music [Vom Musikalisch-Schönen. Ein Beitrag zur Revision der Ästhetik der Tonkunst (1854)]*.

Hanslick’s thesis that “tonally moved forms [...] are the sole content and object of music” (Hanslick 1854, p. 32; translated by the author), explicitly states that music does not refer to the non-musical world of concepts and human desires. It is well known that for Hanslick, the seemingly emotional content of music is unrelated to musical meaning. However, what he means by “tonally moved forms” is rarely discussed. This term first emphasizes musical forms irreducible to isolated musical elements as essential units of music that are considered meaningful. Moreover, the term “tonally moved forms” establishes the importance of musical forms by highlighting that musical forms whose material consists of tones are characterized as movement: “changes in time, in force, in proportion” that refer to “the idea of the swelling, the dying, the rushing, hesitation, of the artificially convoluted, of the simply accompanying and the like” are audible (*ibid.*, p. 14). Musical forms are therefore able to “recreate the movement of a physical process according to the moments: fast, slow, strong, weak, rising, falling” (*ibid.*, p. 13). In other words: Music can depict neither abstract concepts nor emotional content, but the moments of movement of ideas, i.e. the “concepts that have come to life” (*ibid.*, p. 16) and the dynamic of a psychological process, for instance, the dynamics of feeling: “a moment of feeling” only becomes accessible through tonally moved forms (*ibid.*). However, Hanslick does not specify what exactly he means by “depicting” movement or dynamics. Since he uses the term “*darstellen*” (“depicting” in German) in relation to both emotional content and emotional dynamics, this term cannot be interpreted as “representation” as it is used within the scope of modern semantic theories, according to which the dynamics of feeling and the movement of ideas do not have any representational semantic content. In the foreword to his treatise (2nd edition), Hanslick describes only very briefly that “[a] thing ‘depicting’ [...] always [involves] the notion of two separate, distinct things, one of which only becomes explicit through a particular act related to the other” (Hanslick 1858, p. vii; translated by the author). In this respect, the otherwise very insightful idea that the movement of musical forms (which is not the partial moment of musical forms, but makes up musical forms) is related to the dynamics of feeling (the partial moment of feelings) and/or the movement of ideas (the partial moment of ideas) deserves thorough discussion.

Philosopher Susanne K. Langer elaborates upon the relationship between the inner dynamics of music and the dynamics of feeling. For Langer, art, in general, is “the creation of forms symbolic of human feeling” (Langer, 1953, p. 40), and “feeling” means, according to philosopher Christian Grüny’s interpretation, the “experience of what it is like to feel, experience or think something in particular, especially in terms of its temporal articulation” (Grüny, 2018, p. 27; translated by the

author). “Feeling” thus refers to the life experience accessible to phenomenal consciousness. Referring to Wolfgang Köhler’s theory of Gestalt psychology, Langer assumes that musical forms that emerge from the combination of several elements possess properties that create a semantic reference to subjective experience. Musical forms thus involve the purely structural conditions as to how they function as “symbolic forms” through which the world is grasped. However, unlike words, those elements that are combined into musical forms have no fixed meanings (cf. Langer, 1942, p. 76). On this basis, among other things, Langer distinguishes a theory of the semantics of music from a language-oriented theory of semantics.

Although Langer develops a theory of musical meaning that pertains to musical forms, her position differs from that of Hanslick since Langer argues that the semantic content of music is “symbolized” (ibid., p. 181). A musical form—melody, rhythm, etc.—is a “disciplined and articulated form” (ibid.), which Langer refers to as “a symbolic form”, and has a semantic content. For the discussion of a semantic relationship, she points to a clear distinction between denotation and connotation: She conceives of denotation as a central semantic relationship of language and describes language as “a discursive symbolic form” (cf. ibid., p. 82). However, no specific denotations can be assigned to a musical symbolic form that is non-discursive and untranslatable (ibid.). For Langer, music has a connotational relation to human experience that has formal properties such as “patterns of motion and rest, of tension and release, of agreement and disagreement, preparation, fulfillment, excitation, sudden change, etc.” (ibid., p. 185). So Langer advocates a purely connotative semantics of the music, whereby there is no fixed connotation, which in turn does not lead to a fixed connotative meaning of music, since it is not about a conventionalized sign (cf. ibid., p. 195). Based on a relationship of similarity between musical forms and forms of feeling or the “morphology of feeling” (ibid., p. 193), connotative meanings of music are not about specific emotional content, but about (general) forms of feeling that are grasped. As an example, Langer points out a similar morphology of some sad and some happy conditions (ibid.). However, the semantic relationships of music are determined by the fact that forms are “articulated” (ibid., p. 190). Even if “certain [non-musical] aspects of the so-called ‘inner life’—physical or mental—[possess] formal properties similar to those of music” (ibid., pp. 184f.), these forms are not present before they are articulated. In this respect, “possible articulations suggested entirely by the musical material” (ibid., p. 195) come into focus.

It becomes obvious that Langer’s conceptualization of music as a symbolic form through which forms of feeling are articulated is very similar to Hanslick’s thesis that the content of music consists in “tonally moved forms.” While Langer justifies extra-musical meanings linked to musical forms that arise through the relation of musical elements to one another, Hanslick’s focus lies on musical functional contexts although he also suggests that music is able to depict the dynamics of feeling. In order to elucidate the relationship between the tonally moved forms and the forms of feeling, however, it is not enough to only consider the intra-musical functional relationship. In the following, I will discuss the possibility of exploring this relationship, introducing the term “forms of vitality.”

Forms of vitality

The term “vitality form,” coined by developmental psychologist and psychoanalyst Daniel N. Stern, in conjunction with Susanne K. Langer’s concept of forms of feeling, among other things (Stern, 2010; Langer, 1953), is of importance for the development of a theory of meanings of musical forms. This term describes a form of behavior of a living being or of the arts consisting of movement, time, force, space, and directionality, which is constituted relationally—i.e. through interaction with the world and others (Stern, 2010, pp. 5f.). Just as Langer (1953) emphasized with her concept of forms of feeling, forms of vitality that manifest themselves in both physical actions and mental processes (ibid., p. 4) are about the way (“how”) in which inner—physical or psychological—life is shaped relationally rather than emotional content or mental concepts (“what”). Stern points out, however, that such forms of vitality can accompany categorizable emotional states and,

in this case, can contribute to understanding such emotional states of others through observable behavior that exhibits vitality forms. As a result, a representational meaning in the sense of modern theories of representational semantics could be assigned to forms of vitality that manifest in observable behavior. This is an essential aspect in which Stern's vitality form and Langer's non-discursive symbolic form both differ from and resemble each other. While both can be viewed as representational signs characterized by a dynamic form of movement, a representational reference to categorizable mental states of others does not form the basis for Langer's non-discursive symbolic form. Stern's form of vitality, on the other hand, can be an expressive sign of the emotional states of others, although the forms of vitality observable in human behavior or the arts, in which forms of feeling become accessible, do not directly express categorizable emotional states of others. Another difference is that Stern views forms of vitality as relational, i.e. emerging through interaction with others, and Langer does not highlight interactive-relational conditions for the articulation of forms symbolic of human feeling.

Observable forms of vitality, however, are not exclusively representational signs. According to Stern, there are also "content free vitality forms" (Stern, 2009, p. 315), which he also describes as "pure dynamic form(s) of vitality" (*ibid.*, p. 314). A paradigmatic example of such vitality forms is the way in which a 2-3-month-old infant's interactive behavior relates to their caregiver's body movements and voices (cf. Stern, 1985, p. 143). The ability of mind-reading is developed in the later stages of childhood, i.e. at 7-18 months (cf. Buttelmann et al., 2009; Carruthers, 2013). Babies are therefore able to associate their forms of vitality with content-related verbal utterances and non-verbal gestures, facial expressions, etc. through interaction with the caregiver. Before this stage, the communication of infants relies on "content free" forms of vitality, which do not involve social cognition such as the so-called theory theory and simulation theory of understanding the mental states of others. These forms of vitality that I call non-representational vitality forms serve as the basis for interpersonal understanding, which could also involve representational signs at a later stage. What is constituted through infant-caregiver interaction based on non-representational vitality forms is interaffectivity (see Stern, 1985, pp. 138ff.). This dyadic affectivity, on which the development of a subjective perspective is based, can be characterized as a pre-reflective experience, which Stern termed "vitality affects" (Stern, 1985) and which have come to be known under terms like "felt sense" (Gendlin, 1996), "intuitive experience" (Petitmengin, 1999), "background feelings" (Damasio, 1999), "existential feelings" (Ratcliffe, 2008), "background bodily feelings" (Colombetti, 2011). However, the role of non-representational forms of vitality, which involve basic processes of coordination rather than higher-order processes of cognition such as social cognition, has been little discussed so far. Therefore, the forms of vitality that Stern calls "pure dynamic form(s) of vitality" will first be discussed in order to develop my own thesis that musical forms are coordinated non-representational forms of vitality.

Stern assumes that pre-reflective experience has a structured form (cf. Stern 1985, p. 7; Stern 2009, p. 309). He supports this assumption, taking the results of developmental psychological research into account (Stern, 1985, pp. 6ff.). One of the essential features of this structured form of pre-reflective experience is a Gestalt or "emergent property" (Stern, 2010, p. 5) arising from perceptions of movement, time, force, space, and directionality. Movement and its proprioceptive perception are fundamental to the basic awareness of life (cf. *ibid.*, p. 9). pre-reflective experience does not have a static form but a moving form that has a beginning and an end and has an ascending and descending contour. Thus, movement is accompanied by the experience of time and space. When experiencing movement, force is felt because the effort associated with the movement is also experienced (cf. Stern, 2009, p. 315). In addition, movement is directed towards its goal, through which the tendency of the movement towards (non-)completion is experienced (cf. *ibid.*, p. 316). In the course of interaction, forms of vitality can be coordinated and span all sensory modalities by adjusting to one modality of vitality forms through the other, as Stern observes in behavior in dyadic interaction

between infant and caregiver (cf. Stern 1985, pp. 140f.). For example, the infant's mimic contour corresponds to the prosodic contour of the caregiver's verbal expression in that both the infant's facial expression and the caregiver's voice exhibit the "crescendo" patterns (*ibid.*).

Stern argues that the arts exhibit forms of vitality in such a way that their dynamic characteristics "can be amplified, refined, and rehearsed repeatedly" (Stern, 2010, p. 75). He also partially discusses basic forms of musical vitality and a notation system for identifying these forms. However, some musical examples given by Stern are more about accent, volume, and tempo indications as well as notations for rhythm and tempo changes that are known as performance characteristics (*ibid.*, pp. 82f.). While Stern (1985, p. 159) considers "stylistic" and "conventionalized" dimensions of forms of vitality in relation to visual arts, he does not take into account musical forms related to musical styles and conventions. Hence, in the following, I will elaborate upon the extent to which musical forms are characterized as forms of vitality.

Musical forms as coordinated non-representational forms of vitality

Musical forms are musical units that are formed through musical creative processes—be they composition, improvisation, interpretation, or ritual processes, which result in the forms of musical materials such as timbre, pitch, volume, rhythm, melody, and harmony. Examples are a call-and-response pattern in Black Atlantic Music or Balinese *kecak*, a cadence in Western tonal music, a metric-rhythmic structure, melodic structure, transformations of a motif, a timbre-related microsound structure in electroacoustic music, spectral music, and overtone singing.

Musical forms are not constituted as a succession of elements, but as a kind of Gestalt, as the whole that cannot be reduced to individual elements. This holistic or figurative property of musical forms is described as "inner dynamics" or "inner form" of music (cf. Dahlhaus, 1975; Rothfarb, 2002), which cannot be explained in terms of musical syntax (cf. Dahlhaus, 1975). An attempt to grammatically explain musical forms is based on a "static" approach to musical forms, presupposing the smallest musical constituents (Zbikowski, 2002). Understanding musical forms as inner dynamics is based on a "dynamic" approach to musical forms (*ibid.*), which is supported by music theorists whose work is characterized as (musical) "energetics" (cf. Rothfarb, 2002; Schäfke, 1934). Among Western classical music theorists, Adolph Bernhard Marx's dynamic scheme "Rest – Motion – Rest" for musical formal processes and "Rise – Intensification – Climax – Return – Rest" for processes of sonata form and Hugo Riemann's organic concept of the motif can be counted as precursors of energetic approaches. The concept of force, which was central to Ernst Kurth's view of melody as a dynamic movement (Kurth, 1917), also comes into play in Hans Mersmann's music theory in which musical forms are characterized as "organic unit[ies] of forces" (Mersmann, 1925, p. 376; translated by the author). Moreover, Arnold Schering's categories of opposites related to formal arrangements, which are of a purely elementary, tonal nature, are considered to be associated with energetics (cf. Schering, 1914) especially since directional tendencies that result dynamically from their succession are taken into account. Examples of the categories of purely elementary tonal contrasts given by Schering are: Sound – Pause; Long – Short; Fast – Slow; Crescendo – Diminuendo. Incomplete versus complete coherence (e.g. half sentence – full sentence), contrast (e.g. motif – counter-motif), repetition, imitation, and variation are examples of the opposites of formal arrangements.

A musical form that emerges through directional tendencies is characterized as a Gestalt that consists of movement, time, force, space, and directionality that progresses from a beginning to a point in time. Such a Gestalt is to be referred to as a "vitality form." A piece of music or musical ritual tends towards an end; a first phrase ending in a half cadence that feels tense is resolved through a second phrase ending in a strong cadence that gives rise to relaxation.

The structuring of musical forms requires physical effort—or its simulation when using digital musical instruments—to generate and shape sounds. Sounds used as musical material are structured in a specific way, depending on how their frequencies and intensities or their attack, decay, sustain

and release processes are distributed as well as on how microsound phenomena such as vibrato and tremolo are controlled. The structuring of musical forms based on microsounds, which can be investigated by an FFT-based spectral analysis (cf. Rapoport, 1996; Kim, 2003), proves to be a highly sophisticated and controllable process so that they can be generated repeatedly. Amplified and refined forms of vitality that can be rehearsed repeatedly emerge when structuring musical forms. Moreover, the structuring of timbre-related musical forms gives rise to a dynamic property of sounds involving tension and relaxation (cf. McAdams & Giordano, 2016).

Even while shaping larger units of musical forms, a directional tendency towards an end based on music-structural progression plays an important role. During musical shaping processes, the perception of a sound event currently generated is linked to motor schemata (Schmidt, 1975; Arbib, 1981) that underlie goal-oriented motor movements or activities. Therefore, musical shaping processes are accompanied by those of musical understanding that single out one or more of their dynamic properties through the interplay between perceptual schemata and motor schemata while perceiving generated sound events. These processes of musical understanding constitute musical forms as vitality forms. More precisely, musical forms can be characterized as coordinated forms of vitality that emerge holistically, using specific procedures including repetition, imitative variation, displacement, and fragmentary or expanding transformations of a musical unit, call and response, polyrhythms/polyrhythms, polyphony, heterophony, hocketing, or an interplay of different dimensions of musical structural features such as a timbre-related, a melodic, a rhythmic, and a stylistic-formal one. Although as discussed in the previous section, coordinated musical forms of vitality are considered non-representational, they serve as a common ground for the meanings of music. The extent to which my view that music consists in coordinated non-representational forms of vitality can comply with the fact that music bears extra-musical meanings is addressed in the following section.

Musical forms of vitality and extra-musical meanings

In the section *Does instrumental music bear no extra-musical meanings?* I discussed that instrumental music can bear extra-musical meanings, showing that some musical passages, while lacking representational content, have extensions. Having proposed to view musical forms as coordinated non-representational forms of vitality in the previous section, the relationship between musical forms and the dynamics of feeling (Hanslick; Langer) could be elaborated upon as follows. As a first step, it can be postulated that the extension of musical forms that are perceived as energetically dynamic—i.e. as displaying the property of vitality or living (Stern, 2010)—and that therefore can be called musical forms of vitality (Kim, 2013, 2020) is the set of all things characterized by the property causally produced by physiological processes of vitality that support the survival of living beings and show a dynamic structure (such as the rhythm of a beating heart). As Fraise (1982) and Todd (1994) pointed to musical correlates of body motions, musical pulse (beat) and heartbeat, as well as musical phrase and breathing, share properties. Iyer (2002) claims that music perception is connected to human motion, for instance, tempo to speed of human motion, meter to regularity of human motion, polyrhythm to coordinated contrasting human motion, loudness to degree of effort, exertion (cf. Iyer, 2002, p. 394, table 2). Moreover, vitality processes underlying the shared property of the behavior of living beings and musical forms include mental processes of vitality, specifically motivational states, which in turn are related to physiological processes of vitality. In this way, mental processes of vitality and musical forms also share their dynamic properties. Despite being causally produced by mental processes of vitality, musical forms, however, do not serve as expressive signs of the motivational states of music producers, given that motivational states are not representational states. On this basis, it can be argued that even forms of absolute music bear extensional extra-musical meanings. Unlike Hanslick and Langer, the relationship between musical forms and the dynamics of feeling is neither grounded in aesthetic formalism, nor in connotative symbolic forms, but in coordinated non-representational forms of vitality.

Although musical forms can therefore be considered as having a general extension, i.e., referent, the vitality processes that beget coordinated non-representational forms of vitality do not simply belong to the world in a way that is pre-given, irrespective of experiential forms of understanding. Musical forms cannot be perceived as energetically dynamic unless their forms of vitality are singled out through forms of understanding involving an experiential re-enactment (Vogel, 2007; Kim & Vogel, forthcoming) and interactive participation (Söffner, 2014; Kim & Vogel, forthcoming). Musical sequences, for instance, are then perceived as rhythmical forms of vitality either if their rhythmic structures are re-enacted through covert kinaesthetic imagery (Kim, 2022) or overt gestural-vocal activity (Cox, 2006) or if we interactively participate in the process of shaping rhythmical forms of vitality, e.g. through dancing and conducting. Hence, what musical forms refer to are not the things given in our reality (*realitas*) separately from the things that do within a world of musical understanding, but rather the world (*actualitas*) co-constituted while (co)shaping musical forms of vitality. This world goes beyond an intra-musical world and can therefore be characterized as an extra-musical world, yet it is not independent of musical forms that render coordinated non-representational forms of vitality during the process of musical understanding. Moreover, vitality processes that cause a property similar to the dynamic property of musical forms are not independent of context. According to a given context, identical musical sequences can be perceived as different forms of vitality, which in turn depends on the mental or physical processes of vitality involved in musical understanding. The meaning of a specific musical act may therefore be experienced differently in both intracultural and intercultural contexts (cf. Cross, 2009, p. 183) as Blacking (1995, p. 237) also described, noting that “[n]ot only can the ‘same’ patterns of sound have different meanings in different societies; they can also have different meanings within the same society because of different social contexts.” Therefore, musical forms could be understood as bearing *floating referentiality*: The same musical forms might refer to different things that share properties causally produced by culture-specific vitality processes. The term “floating referentiality”² would foreground the idea that musical forms of vitality have an extension in the world (*actualitas*) co-constituted while (co)shaping musical forms of vitality that involve experiential forms of understanding.

Towards a broader concept of musicality and music

So far, the discussion has been focused on the extent to which music can bear extra-musical meanings, based on the concept of vitality forms. Inspired by Hanslick’s thesis that music is to be found in its tonally moved forms, my thesis holds that music is to be found in its coordinated non-representational forms of vitality. Those forms are however not limited to tonally moved forms since the latter excludes both sonorous forms that do not consist of pitched tones such as percussion music and noise music, nevertheless could be characterized as sonorous forms of vitality, and gestural forms that are not sonorous forms, yet, according to my aforementioned thesis, to be described as “musical.” Phenomena and behaviors that can be called music are merged into a meaningful unit, i.e. a musical form, by virtue of being related to one another as well as to the world while being experientially understood in terms of interactive participation and embodied re-enactment. Unlike Hanslick, I foreground music’s relation to the world by making clear that a non-representational relation can also be a relation to the extra-musical world. The term “floating referentiality” that I suggest highlights the idea that the world that music refers to is co-constituted while (co)shaping coordinated non-representational forms of vitality rather than given in our reality.

This discussion allows scholars to address the questions raised in the beginning of the present paper, whether speech that is characterized by the phatic function can be described as “musical” and even as “music” in a broader sense and whether other modi of affiliative communicative interaction such as non-verbal gestural interaction can then also fall into the category of music. Coordinated non-representational forms of vitality are (co)shaped during the practices of affiliative interaction consisting of sounds and/or body movements that structure shared experiences and are considered

meaningful in that act of understanding occurring in terms of interactive participation and embodied re-enactment, although they do not bear any representational semantics. I propose to describe such practices as *music in a broader sense*. Compared to Small's concept of musicking (Small, 1998), this broader concept of music also highlights a pragmatic dimension of the practices that are described as "musical," yet it includes semantic and hermeneutic dimensions although those approaches discussed in the present paper differ from traditional ones to musical semantics and hermeneutics in such a way that the meanings of music are not grounded in representational semantics, nevertheless not refused, and considered to emerge through experiential forms of understanding; this approach to musical understanding goes beyond textual hermeneutics. According to this broader concept of music, musicality might be ascribed to specific practices of speech and non-verbal gestural interaction that fulfill the aforementioned minimal conditions for (co)shaping coordinated non-representational forms of vitality. Taking into account the fact that those practices have not been usually considered as music yet, a re-thinking of the concept of music and musicality would deserve more extensive discussion.

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Notes

- ¹ Musicologist Vladimír Karbusický (Karbusický 1990, p. 12) discusses that falling perfect fourth in the introductory chapter of the volume *Sense and Meaning in Music* [Sinn und Bedeutung in der Musik (1990)] that he edited. However, he does not explicitly contextualize the semantic reference of this falling perfect fourth associated with the cuckoo call as an extensional one.
- ² I suggest using this term, inspired by the term "floating intentionality" coined by Cross to point out the ambiguity of musical meanings (Cross, 2003), replacing "intentionality" with "referentiality." This is because within the scope of modern theories of representation (cf. Speaks, 2019), "intentionality" is used interchangeably with "representationality." Hence, the term "floating intentionality" could be misleading.

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