

Music as a non-arbitrary avenue for exploration of the social

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Abstract. The article examines how *music* affords exploration of social aspects of semiosis: how music signifies *the social*, beyond the fact that music is an inherently participatory social process.

Pentti Määttänen extends Peirce's notion of 'hard fact' to 'soft facts' to which we accommodate our behaviour in order to get along in society. As mutual beliefs, soft facts are continuously tested and updated in inquiry. Representation of oneself is also continuously correlated, thrown together, with that of the rest of the world, yielding positioning of self in ways we call emotions.

In music, com-positions of sound constitute hard facts that stand for other facts, soft or hard, by being their metaphors. Shaping and reshaping music allows for safe playing and testing of acts and events, anticipating upcoming situations and changes through virtual situations of the world, social and non-social.

Music analysis examines how features of sound offer complex ways of constructing and interpreting metaphors, and how the narratives in music unfold through presentation of metaphors of subjects' existence, identity and relations, evoking dialogue, drama, tension, even crises to be resolved.

Keywords: semiosis; social; relations; Charles Sanders Peirce; Z-model; metaphor; experience; music analysis

The article addresses the question how music allows exploration of social aspects of semiosis in ways that are not arbitrarily negotiated, but embodied and metaphorical. Across cultures and styles, music is an inherently social process, involving performers, listeners, composers – active participants and agents in different roles of *music* (Small 1998: 9).² John Blacking (1973: 3, 86) famously

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² Small (1998: 9; emphasis in the original) re-coined the word with a '-ck-' and defined the verb as follows: "To music is to take part, in any capacity, in a musical performance, whether by performing, by listening, by rehearsing or practicing, by providing material for performance (what is called composing), or by dancing".

described music as “humanly organised sound” and “soundly organised humanity”. The social in music is closely tied to our human existence and our being-in-the-world – no culture, anywhere, anytime, is known not to have had music, in one form or another. However, in researching the processes of signification in the context of music it would be insufficient and too easy just to take the social in music as a given, in the style of a Wittgensteinian language game, and consider music, in terms of its ontology, simply as a collection of socially negotiated processes into which members of the social group and society become more or less encultured (see, e.g., Moisala 1991: 7; Leman 2008: 62).

The emphasis here is on signification *in* music, rather than signification *of* music. That is, the main interest is in how signs in music operate on social relations, patterns, and identities, and their changes, leading to anticipations, reactions, assessments, and narratives. In this sense, music as a *semiotic praxis* provides a platform, a playground, a laboratory for producing and safely testing our experiences of social situations in meaningful ways.

Without going deeper into naturalist critique, it suffices to point out that there is no direct, logically solid connection between a mind and another. Social and cultural practices, such as music, are necessarily mediated between subjects, through objects of the actual world. However, if the social were taken to be founded on language or other arbitrary agreements, the problem would remain: how do we account for all the communication and semiosis that does not fit in the hegemony of language? Particularly in this context music would indeed appear merely as “auditory cheesecake”, as Steven Pinker (1997: 534) unsuccessfully attempted to maintain (see also Carroll 1998; Secora Pearl, Prince 2014), and yet, despite that, survive the principle of natural selection through eons, across cultures – merely as a “by-product of adaptations” (Pinker 2005: 21).³ As far as music is concerned, *arbitrary* semiosis seems to be the exception and *embodied* semiosis rather the rule. This leads to the central question of how we account for the representations of the social *in* musical signification – assuming such representations exist – that is, the social communicated meaningfully in musical sound, going beyond (or beneath) the fact that the participants “musick” in social settings, as social groups, in social roles, with socially-negotiated identities. In short, ‘social’ here refers to whatever actions, interactions or transactions take place by virtue of the existence of subjects and their mutual relations.

Although my viewpoint is decidedly Peircean at its core, Charles S. Peirce’s work really does not seem to be of much immediate help here: his direct contri-

³ “I suspect that music is auditory cheesecake, an exquisite confection crafted to tickle the sensitive spots of at least six of our mental faculties” (Pinker 1997: 534).

butions to music and the arts are few, and he was well aware of his lack of expertise in this respect (see, for instance, CP 1.314, 1.657). Instead, I will start from Eero Tarasti’s existential-semiotic Z-model and proceed to a Peircean and post-Peircean pragmatist-semiotic framework, which seems applicable to addressing the social and the embodied in musical semiosis.

Z-model, the semiotic triangle, and soft facts

Bridging the corporeal, subjective, social, and cultural, Tarasti’s Z-model (2000, 2009, 2012, 2015; see Fig. 1) outlines the extents of the subject from *MOI* to *SOI* and *vice versa*: from the bodily self (*Moi1*) to subject with habits and identity (*Moi2*), *transcendentally* spanning to social roles and practices (*Moi3*) and further to values and norms (*Moi4*). To quote Tarasti (2012: 328–329),

[t]he essential aspect of the model is that it combines the spheres of the *Moi* and the *Soi*, the individual and collective subjectivities. [...] It shows how the social intrudes our innermost being and makes us social “animals”.

In a dialogic fashion, the Z-model, according to Tarasti (2015: 82; see also Tarasti 2005: 26–27), “depicts two semiotic forces, one going from body to social norms, the other from social norms to body”. This raises the question of how we account for the driving forces of transcendence, and the process that bridges across *Moi* and *Soi*. Assuming the naturalist starting point of an organism’s existence, contrary to non-naturalist sociocultural premisses, let us examine this, using a pragmatist-semiotic framework.

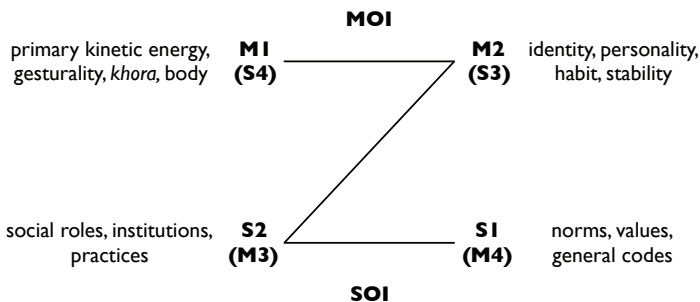


Figure 1. Eero Tarasti’s existential-semiotic Z-model (after Tarasti 2000, 2009, 2012, 2015).

The semiotic *triangle* (Fig. 2; see Määttänen 1993: 42; Ojala 2009: 268–269; cf. Lyons 1977: 96) completes the more traditional semiotic triad (e.g. Ogden, Richards 1936[1923]: 11) by including the aspect of action, resulting from our habits, that is, meanings (CP 5.400; see also Bergman 2016; Määttänen 2015: 41–51). The semiotic triangle describes the relationship of the sign, its object and interpretant. Here, also the development of the representative ability, the mind, is coarsely depicted, from a mere causal reaction of the organism to a subject with agency. In brief, using formulations by Pentti Määttänen (2015: 58),

the dominant flow of causal effect goes from the organism to the environment through action and [...] perception. This loop [of action and perception] is realized through causal physical processes, which is why the notion is fully consistent with [...] soft naturalism [...]

and

also fully consistent with the pragmatist definition of experience [...]. [...] Pragmatism widens the concept of experience. It consists of perception and action. Pragmatism puts action in the first place [...] : action – obstacle encountered – search for new possibilities of action – reflection – decision – action.

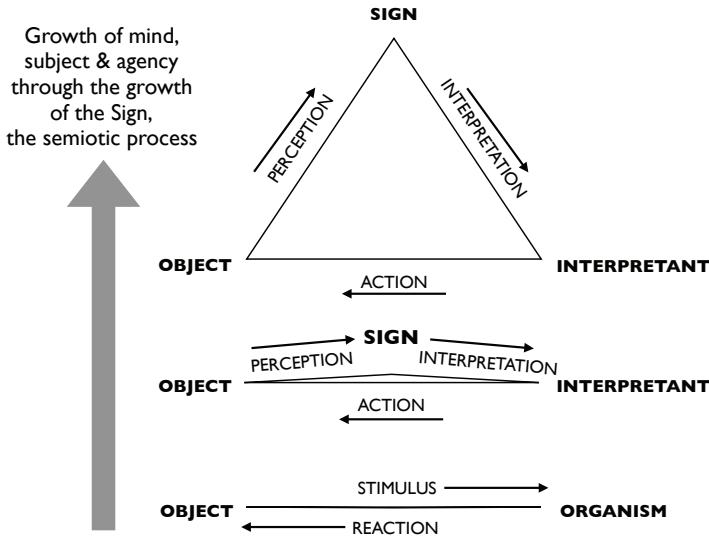


Figure 2. The emerging of the semiotic triangle from organism's interaction with object, modelling the growth of mind and sign, and the rising of the semiotic process.

The three levels in Fig. 2 depict the developmental stages of the system from a “mere dyadic relation” (CP 1.274) between organism and object through intermediate systems capable of e.g. factual representation and goal-oriented action, to a fully developed system capable of e.g. understanding the self and the others, and, finally, semiosis itself as the object of the sign. In terms of Peirce’s theory of the sign, the stages are differentiated by the classes of signs and the phaneroscopic categories: icons and rhemes versus indeces and dicents versus symbols and the argument (Ojala 2010, forthcoming).

The semiotic triangle outlines a pragmatist account of being-in-the-world as *inquiry* (CP 5.370–376, 5.394–400), to which notion the process of transcendence in the Z-model can be returned, it seems. Our continuing struggle of inquiry strives for settling our beliefs regarding the world (and ourselves in it), and is driven by the irritation of doubt, caused by how the hard facts of the world are misaligned, incompatible with our existing beliefs and meanings, that is, with our habits.⁴ The pragmatist, soft naturalist stance taken here, and, e.g., by Määttänen, considers us natural *and* cultural beings, and extends the notion of the ‘hard fact’ (of the dynamic objects; CP 1.431) to ‘soft facts’ (operating through the hard ones). According to Määttänen (2006: 14), “to get along in a society, we have to accommodate our behaviour to social facts, which might be called ‘soft facts’”. Soft facts are imaginary but also objective. To quote Määttänen (2006: 14) again,

[s]oft facts are based on mutual beliefs about correct behaviour. [...] We may choose which side of the road we drive on, but once the convention is in place, we are forced to obey the convention at the risk of getting involved with quite hard facts.

Fundamentally, soft facts are based on hard ones, their affordances and habits of action they produce. We learn soft facts by learning hard facts. Through both of them, we negotiate our subjectivity and intersubjectivity in our social environment and interaction. Through the facts, our social roles and practices as well as norms (of *Moi3* and *Moi4*) – our social and cultural environment – become part of our subject’s account for and being in the world, logically, through our interplay as objects in the world with the hard facts of other objects. This mediation of the soft facts through the hard facts is the gist of social embodiment – understood here as a *generalization* of the embodiment depicted in the semiotic triangle (see Figs. 2 and 3).

⁴ Treating the notion of ‘inquiry’ in detail is outside the scope of this article, as is the constitution of a fully developed sign in semiosis. For ‘inquiry’ in this respect, see “The fixation of belief” by C. S. Peirce (CP 5.358–387), “Logic: The Theory of Inquiry” by John Dewey (LW 12), or e.g. Ojala 2009: 29–34, 48–49, 76–78.

Note that as a consequence of the fact that we, as living beings, are (dynamical) objects in the world, our interaction with the hard facts and our negotiation with the soft facts deals with not only things “external”, so to say, but “internal” ones as well. In this dual process of semiosis, akin to endo- and exosemiotic processes (Sebeok 1976; Hoffmeyer 1992), the representation of oneself⁵ is continuously correlated, thrown together⁶ with that of the rest of the world, yielding positioning of ourselves and projecting our future existence in ways we call ‘emotions’ (Fig. 3).⁷

Representations of hard and soft facts accumulate in our experience and habits, and we communicate them, make them common, through instantiating our habits of action, our meanings, in action. While some soft facts are arbitrarily negotiated – such as terms used in verbal language – and some of the hard facts are contextually (and thereby socially and culturally) differentiated, semiosis can fundamentally rely on the relative consistency of the facts, our perception of them and action upon them.

This entails that through hard facts we can purposefully communicate, make our subjective and intersubjective being-in-the-world common and known to others (and to ourselves), share and incrementally add to our experience, to the degree of similarities in our phylogenesis, ontogenesis, and sociogenesis, taking note of both the risk of misunderstanding, and the potential for learning and growth of understanding.

⁵ Representation of oneself as an object among other objects – living and non-living, thus not digging Cartesian moats, rather the opposite.

⁶ Cf. ‘*sumballein*’, in Peirce’s description of ‘symbol’ (CP 2.297).

⁷ In Fig. 3, labels World1 and World2 refer to subjective being in the world, differentiated through accumulation of experience, while the embodied grounding of semiosis through action and facts prevails. Facts** are both hard, based on dynamical objects, and soft, mediated by the hard facts. The label Sound* is to function as an example of dynamical objects, and to point out that sound is an actual object, involving hard and soft facts. The question emerging from the parallels of endo- and exosemiotic aspects and the parallel processes of semiosis described here, that of the relation between the Peircean notion of inquiry and the biosemiotic notion of *umwelt* by Jakob von Uexküll would deserve attention, but remain beyond the scope of the article.

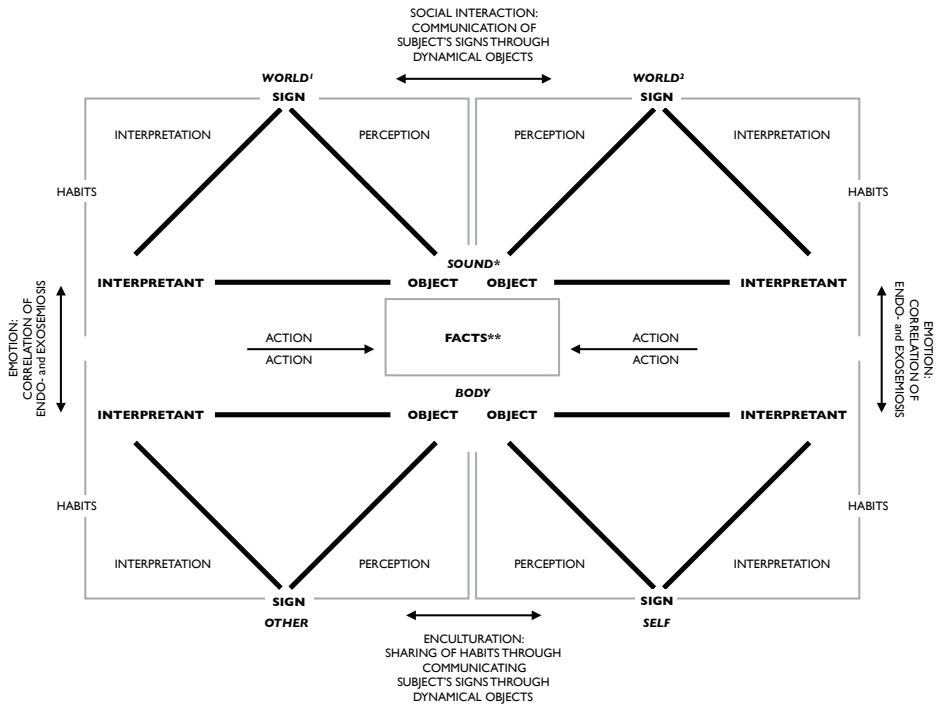


Figure 3. Parallel processes of semiosis: emotions as interpretation of situations in the world in relation to self (depicted vertically), social interaction as communication of facts through dynamical objects, and, based on that, enculturation as sharing of habits (depicted horizontally). After Ojala (2020).

Music as social and embodied semiosis of social and embodied situations

In music, com-positions of sound constitute hard facts that stand for other facts, soft and hard, by being their analogues, metaphors – and sometimes, albeit rarely, by being literally similar to them.⁸ This is useful, meaningful, since it allows, as Dewey (LW 10: 54–55) put it, for the “doing and undergoing” of “an experience”: playing and testing of acts and events, virtual situations of the world, safely, without breaking anything, anticipating upcoming situations and changes (see also LW 10:24 *et passim* in LW 10).

⁸ For a closer look into metaphors in general and the related concept of conceptual blending, see e.g. Lakoff, Johnson 1999; Gibbs 2008 and Fauconnier, Turner 2002; for the same in music, see e.g. Cox 1999, 2016; Larson 2012; Zbikowski 2002, 2008; Ojala 2009.

Consequently, music, through its situations, provides us with a means for not only doing and undergoing past and present experiences and projections of the future, actual or virtual, *in and for ourselves*, but also *for others*, and engaging in those of others, through shared metaphors, without linguistic or other agreements distancing the experience. This opens up an avenue for subjective and intersubjective exploration and communication of experience, and for empathy and enculturation: “Know my song and you know me”. In brief: the ontological stance to music taken here maintains that music is a semiotic praxis where sound is used to explore, affect and develop the experiences of self or others, thereby potentially preparing for future situations, or to deal with and to process those experienced in the past.

At this point, we need to back up a little, and heed the complexity of both semiosis and musics (the latter in the plural). Musical semiosis is social in various respects: from composing to listening, performing, producing, that is, in Small’s “musicking”, the participating agents have their more or less intertwined social roles, identities and environments. These are studied by ethnomusicologists, music sociologists and cultural musicologists. The interest here is more in signification *in* music, that entails issues such as musical actoriality and agency (see, e.g., Hatten 2018), that is, how sound is used to convey – and interpreted as representing – subjects, their actions and their mutual relations, social situations and alternative chains of acts and events, and their means. This, in turn, entails analysis of different metaphoric uses of the feature spaces of sound: the diachronic and synchronic pitch spaces, timbre, dynamic, acoustic, and other spaces (Ojala 2009).

Clearly, it would be impossible to give an exhaustive explanation of musical semiosis and how embodied metaphors function in it: this is the immense task of the disciplines of music analysis and semiotics of music. Yet to get some insight into how the social can be represented and explored in the semiosis conveyed by sound in music, we could first consider whether we listen to and perceive features of music “literally” or metaphorically: musical sound can quite literally stand for an actual thing. For instance, the tempo and rhythm of inhaling and exhaling or a birdlike sound need not be interpreted as more than just what they sound like – as icons.⁹ More significantly, however, the sound is perceived as being *acousmatically liberated*, that is, set up and presented for us to perceive in ways in which we disregard its actual origin and literal references for the benefit of being able to interpret it metaphorically, according to our experience, habits, context, and current needs.

⁹ Cf. Philip Tagg (2013: 582), whose notion of ‘anaphone’ refers to this type of musical sign that bears “iconic resemblance to what it can be heard to represent”.

Furthermore, we could distinguish between observational stances. Do we observe and perceive ‘sound objects’ via a distanced mode of listening, as if an observer *outside* the realm of events, towards whom and whose ‘now’ the sound objects move from the future, after which they pass to the past, potentially narrating stories about other subjects, perhaps empathetically interpreted? Or do we take on a more active, participatory insider’s mode, where we interpret the sound somehow representing *ourselves*, narrating our own story, true or not, pathetically interpreted (‘pathetic’ here referring to emotions without consideration of positive or negative valence).¹⁰ There seems no inherent reason to value one mode of listening over the other, albeit the latter, the listening mode of *participatory agency* might be inductive to more subjective, self-identified and emotional interpretations than the mode of *observing agency*.

Beyond this, I am afraid I will first have to make the general note that the variety and complexity of usable features in musical sound afford to varied and complex ways of interpreting sound metaphorically, depending on how socio-culturally differentiated the embodied experience (and thereby the collection of habits, that is, meanings) is across the listeners. In music, each state in a feature space of sound may be taken as a *location* of something or someone, each point in a space as *existence*, each location in a “tessellated” space (Gärdenfors 2000: 84–92, 2014: 21–52) as *belonging* to a category (or not belonging, thereby creating differentiation and identity), each attribute to a perceived entity as its *possession*, each change as their *motion* – and each lack of change as continuation, resistance or stasis. The narrative thereby unfolds through presenting of sounding materials, perceiving of meaningful features, identifying or associating the perceived entities (such as grouped sets of pitches with certain timbres and dynamics, for instance) as standing for objects or subjects, affirming their existence and *identity*, then – typically – evoking changes, and thereby dialogue, drama, tension, even crisis, to be subsequently resolved. All this is being interpreted in relation to the listener’s experience and context, and possibly taking simultaneously place in different feature spaces, which more or less may confirm or contradict one another, and in various magnitudes of time scale, as well as on various levels of abstraction in terms of literal versus metaphorical representation.

This does not lead to chaos, however, since the practices of making music are guided by the goals and constraints of praxis, as well as the logic of embodied experience: how sound affords coherent, meaningful interpretation. In terms of the communicational setting, this entails delivering the musical sound in

¹⁰ The former mode, that of observing agency, correlates with the Moving Time Metaphor in cognitive metaphor theory; the latter mode, that of participatory agency, with the Moving Observer Metaphor (Lakoff, Johnson 1999: 137–161; see also Larson 2012).

settings suitable for the listener (such as shared concert settings or private settings for headphone listening) and, reciprocally, orientation and attitude by the listener towards the communicational settings. More so, in terms of the actual communication, this entails designing the sound so that it constitutes perceivable, interpretable forms with identities, that can be presented and established as actants – “sound subjects” – of the narrative; that are recognizable and malleable for transpiration of virtual acts and events (Tarasti 1998); and that can be juxtaposed with one another, for instance to stand for intersubjective, social relations.

Next, I will try to illustrate these briefly with two simple and straightforward examples (choosing any feasible number of examples from the expanse of possible repertoires necessarily will be no more than scratching the surface). Of the different feature spaces (or parameters) of sound in music, I will focus on melodic lines and their relations, and leave out most considerations of temporal, timbral, harmonic, and other features contributing to signification. Other perceptions, experiences, and interpretations of the examples are not only possible, but also likely, yet I hope those below might serve to make a point here. The abductive analysis is based primarily on (analytic and holistic) close listening, which is supported by close reading of the notation (see, e.g., Cook 2014).

In the case of the bebop jazz classic *Swingin'* by the Clifford Brown–Max Roach Quintet¹¹ (1955; Fig. 4; see Meadows 2011), both the intro and the theme operate to a great extent on *iconic* representations of ascending and descending motion, both in pitch cells of three and two tones as well as in larger structures.¹² Although the tempo is fast, the iconicity of motion is clearly audible. It is also visible when notated (Fig. 4), the vertical notation of pitch over horizontally represented time itself being a metaphorical structure. In fact, a ‘high’ pitch is not literally ‘high’, albeit logically so embodied: for instance, the use of ‘higher’ frequencies *indicates* ‘higher’ levels of muscular energy, string tension, air pressure needed for the production of sound, etc. (see Cox 1999: 18–29; Ojala 2009, 405–431; cf. Zbikowski 2002: 82–95). As the ascending motion of a melody is logically associated with the increase of physical and experienced energy and power, it also *symbolizes* strength, power, a high position in a more abstract sense – things of positive valence, to put it in terms of psychology of emotion. Reversely, the descending motion indicates decrease in tension, absence of pressure, relaxation, resolving, and abandonment,

¹¹ Brown, Clifford 1955. *Swingin'*. *Study in Brown*. Clifford Brown (trp), Max Roach (dr), Harold Land (t.sax), George Morrow (b), Richie Powell (p). EmArcy 814 646-2. Recorded in 1955. Notation in Fig. 4 by the author of the article.

¹² The full structure of the piece as played by Brown, Roach, and others is: Intro – Theme: AABA – Trumpet solo (solos AABA) – Saxophone solo – Piano solo – Drums and horns trade fours in A, drum solo in B – Theme: AABA – Tag (intro recapped).

and thereby, advancing from Peircean Secondness to Thirdness, symbolizes, among other things, sadness, misery, submission, resignation, and death – things of mostly negative valence.

Swingin'

Clifford Brown

Figure 4. Notation of the opening of *Swingin'* by Clifford Brown with Max Roach Quintet (Brown 1955), displaying the introduction and section A of the theme. The B section and solos have been omitted.

The intro lays out the context by setting up an active, fast, but coordinated pace of events and gives a background to the presentation of the theme. The first half of the pitch contour of the intro (measures 0–2) consists of cells of three slurred pitches moving symmetrically down and up, perhaps positively limping, perhaps negatively limping. The five cells descend a full octave, until the fifth cell in the middle of the intro is cut and left unfinished. The latter half (mm. 3–6) consists of cells of two pitches, second pitch articulated shorter than the first one. The first three cells ascend (mm. 3–4), reaching a local apex of contour (E natural), contrasting the tonal centre (B flat), followed by yet other three cells again descending (mm. 4–5). The intro ends with a temporal augmentation of the very first cell, now an octave lower (mm. 5–6).

The smooth yet simple articulation of the first half of the intro appears to stand for a downward path from bright heights to low points, a path that might be either voluntarily taken or set forth by others, a direction taken by or given to the *virtual subject* in the pace of events. The latter half responds to this with increased activity: sharper articulation, shorter, faster motion of cells, first up, indicating more energy, efforts to climb up from the low point. However, the steps immediately decrease in size, and once the clashing tritone of local apex is reached, they change their direction back down, settling finally again in the lowest positions, a perfect octave – most harmonious interval – below the starting level. The effort to climb back up seems to fail, but the narrative will continue with the actual theme.

Like the latter half of the intro, the theme itself operates on a contour of first ascending, then descending pitches: the solid and smooth, almost step-wise run in high tempo climbs up in pitch (m. 7), jumps to the peaking pitch for a moment, but lands almost immediately back down, quasi-sliding (m. 8). The climb repeats and lands down again, verbatim (mm. 9–10), and still repeats twice more (mm. 11–12), as if insisting on trying the jump until it succeeds, but now without the preceding approach, before settling down – yet only for a second, until the whole of section A gets repeated after an open-ended cadence (m. 13).

The ascending and descending motions of the melody create contrasting narratives of rising and falling energy, waxing and waning forces, forming a path that serves as a metaphor (cf. Lakoff, Johnson 1999; Larson 2012: 61–81). For the sake of clarity, let us now consider only the pathetic, that is, the more active, participatory observational stance: the insider's mode of listening in which we interpret the sound somehow representing ourselves, telling our own story, true or not. (In the other stance we would be more of an outsider, observing someone or something other than ourselves.) As the melody unfolds, the path is travelled, and at each moment, what is sounding becomes the past, what will be sounding is the future, with expectations set by what has been. The location in the pitch space positions the virtual subject of us (the metaphor of us) on the path, moving actively or passively, reaching the goal set in our direction or not, being in control of our motion or not, forced to act or not forced, and so on, the metaphor of which we experience based on the behaviour of the melody and the expectations build (cf. Huron 2006). A melody line is a metaphor of the subject. Several lines of melodies and their relations are metaphors of multiple subjects and their mutual relations.¹³

This notion of melody as a virtual subject is an abstraction from experiencing and interpreting the sound. The abstraction is, however, inseparable from the actual musicians and the sounds produced (and their timbre and other features). In the case of *Swingin'*, the melody lines are produced by different performers on different instruments, sometimes together, sometimes solo. The intro and the A section of the theme, presented by the duo of trumpet and saxophone, are only the beginning of the adventure. In later stages, the piano introduces the B section of the theme and the A section returns with trumpet and sax playing together again. The individual explorations, commentaries, or reflections by the trumpet, saxophone and piano solos then take over, and, finally, the drums are given their own moments of telling, until the theme, again, is restated by the protagonists, the trumpet and saxophone, in the end.

¹³ For the general and social Self metaphors, see Lakoff, Johnson 1999: 267–290.

The path up and down, the efforts and setbacks of the virtual subject in climbing towards a higher position, against the continuous pull downwards, are repeated and restated on different timescales from the level of cells to the main structure of the piece. It is noteworthy that the virtual subject is not led – or the plural subjects are not led – along the path by one player only: the trumpet and sax present the theme together, in octaves, *in perfect mutual harmony*, while the bass and drums, with the piano, keep up the pace of events, and comment on the activities of the front figures. Taking a note of the cultural history and social context of the performers and the performance, that of the 1950s African-American jazz and jazz musicians, and their life histories involved, it seems almost too easy to take the introduction and the theme – and the narrative of the piece as a whole – as a *symbol* of the story of the African-American position and struggle, and, from that viewpoint, as a narrative of coordinated valiant efforts of two determinate and active subjects (performed to the audience as both virtual and actual) supported by their close ones, friends or family, each carrying their responsibilities as members of a group, in situations where the odds are against them. Indeed, according to Gebhardt (2001: 113), bebop was “a *social* and *historical* act”, and bebop musicians’ “camaraderie provided an ideological means to rationalize both the bebop act’s radical contingency and the struggle for the form of the act”. Furthermore, referring to LeRoi Jones’s (2010[1968]) analysis, Gebhardt (2001: 113) maintains that

the emergence of bebop was linked to an epochal transformation in black consciousness, and the bebop musicians themselves, in their “rejection” of the jazz “mainstream,” were the active embodiments of this struggle for a new relation to the American state.

There would clearly be much more to analyse and discuss in *Swingin’*. However, already the intro and the exposition of the theme might serve to illustrate how the actual performing, as part of the process of musical semiosis, is an inherently social process where the members of the ensemble divide the labour to reach the common goal, each with an own voice in communicating the narrative to the audience, sometimes voices together, sometimes one accompanying the other in the background, setting the context cooperatively.¹⁴ The main message here, the

¹⁴ Although there is no strict, direct one-to-one correspondence between the player, the instrument, and the voices as the independent lines of melody here, especially in the main narrative roles, the trumpet and the saxophone, there is a blend between the player as an actual subject, the instrument as an actual tool, and the one-voiced melody line produced, carrying what we might perceive as a virtual subject. This can be seen in the established ways

theme and the intro leading to it, the narrative of the sound, that of the struggle and the continuous efforts of ascending, seems to use efficiently the metaphor of *verticality* in pitch space of music, and working from primary metaphors, such as Happy is Up, More is Up, Difficulties are Burdens, Change is Motion, Purposes are Destinations, and Control is Up (Lakoff, Johnson 1999: 50–53) to more complex ones, such as Being In The Same Place As is Having The Same Values As and Self Control Is Being In One’s Normal Location (Lakoff, Johnson 1999: 267–287), and the associated *conceptual blends* (e.g. Zbikowski 2002: 68–74, 2006: 123–126, 2008) – to communicate what seems to signify the social struggle and the efforts and resistance involved. As noted, this is to be taken as one interpretation.

Fuga XVII
a 4 voci
BWV 886

Johann Sebastian Bach (1685-1750)

Subject: dux in alto

Subject: comes in soprano (voices crossing)

Counter-subject 1 in alto

6 3 3 6

4

(syncopation)

3 6 7 3 2 d5 3

(false entry of subject)

Counter-subject 1 in soprano

Counter-subject 2 in alto

Subject: dux in tenor

7

Counter-subject 2 in soprano

Counter-subject 1 in tenor

Subject: comes in bass

Figure 5. Notation of the opening of Fuga XVII, BWV 886, in Ab major, from the *Well-Tempered Clavier II* by Johann Sebastian Bach (1685–1750), with entries given for the four voices. The first exposition, displayed here, presents the material in the main key and introduces the mutual relations of the thematic material in different combinations.

of speaking of them, without necessarily differentiating between them, fusing them to a certain degree. This underlines the embodiment of the social in the process.

The second example takes us to the early-18th-century Germany (Fig. 5), and to Fuga XVII from the *Well-Tempered Clavier II* by Johann Sebastian Bach (1742)¹⁵. This is a four-voice fugue; the sounding texture consists of four independent but mutually compatible voices, labelled soprano, alto, tenor and bass. Also from the fugue we mostly observe the opening, the first exposition, but, unlike in *Swingin'*, due to the different social and cultural habits of the genres the analysis will now pay less attention to the specific performance, and instead takes more into account the notated instructions. Being nowadays part of the tradition of Western art music, which has emphasized the concept of *the work* (and thereby adherence to the notation and the established performance practices),¹⁶ and being usually performed by one player on one instrument (which can vary), the four voices of the fugue tend not to be associated with specific performances, performing instruments, or players. The representations of the social (or other matters) in a fugue can therefore be considered quite independent of the actual performing forces and more acousmatically liberated than in the first example, although the listening experience remains the basis for analytic judgment here.

In music terminology, a fugue theme, specifically, is called 'subject'. Typically, there are two versions of a fugue subject, the first habitually called '*dux*' (referring to 'duke', a leader), and the other '*comes*' ('guide, helper'; also called 'answer' to the subject). This fugue, like many others, also has a *countersubject*, a counterpart to the subject, with a different but compatible character to the subject, created by means of mutually complementing the materials in terms of e.g. rhythm, register, articulation, or dynamics. There is also another countersubject, whose character is fast-moving, steady-paced, but contour-wise more ambiguous, even sneaky. For instance, the steady, slowly downwards-oriented character of countersubject 1 (*cf.* the motion in the theme of *Swingin'*) differs from, and complements that of, the subject and its faster, rhythmically and motion-wise more varied, and thereby more joyous, even capricious character. In fact, the chromatic motion downward of countersubject 1 is a token of *passus duriusculus*, a well-established figure which has been used to represent sadness, lament and death, among other things (*cf.* the material of *Swingin'* above; Aksnes 2001: 91; Monelle 2000: 73–76; Williams 1997).¹⁷

¹⁵ Bach, Johann Sebastian 1742. *Fuga XVII, BWV 886, Das Wohltemperierte Klavier II*. Notations in Figs. 5 and 6 are by the author of the article, based on the manuscript by J. S. Bach (1739–1742), British Library, Add MS 35021, f014r, and the manuscript copy by J. C. Altnikol (ca. 1755), Staatsbibliothek zu Berlin (D-B), Mus.ms. Bach P 402 (2). The sources are available online.

¹⁶ Both in music, as well as in other arts, this adherence is often referred to with the term '*Werktreue*' (e.g. Goehr 2007: 231–234).

¹⁷ The fugue could also be approached by means of analysis of metaphors and cognitive blends, as briefly shown with *Swingin'* above, but that would be beyond the article's scope and beside the point here.

The fugue is a polyphonic genre. In homophonic genres, one (or more voices) is given more emphasis – more power, while the others stay in the background, accompanying it. In polyphony, the voices are “democratic” in the sense that their roles are, at least in principle, equal in presenting and treating the thematic and other material and thereby contributing to the overall texture of the piece. In a fugue, the four voices share the thematic material and constitute a unified texture. Benjamin (2004: 42; my emphasis, J. O.) lists four principles for Bach’s counterpoint (regarding the fugue and other polyphonic genres): *integrity* of the individual voices, their *equality*, *consistency* of materials between the voices, and considerable *independence* of line: “While the voices must *interrelate successfully*, they must also *exhibit individual identity*. They will be to some extent distinct from each other [...]”. On the other hand, the subjects and countersubjects are also composed so that they have distinct, mutually compatible, but also discernible, identities that are mostly retained throughout the fugue, regardless of how they are combined with one another, transposed, and manipulated by various contrapuntal techniques (such as inversion or augmentation). In short, the process of shaping the subjects and using them in order to create the unfolding narrative of the fugue can be thought of as a process of creating metaphors of the social and of matters such as identity, social relation, individual and collective, interdependence, cohesion, interaction, and change (cf. e.g. Robinson 1996).

The mutual relations of the contrasting materials form consonances and dissonances (resolved to consonances), controlled with techniques of invertible counterpoint. For instance, the subject in soprano and countersubject 1 in alto, first constitute consonant intervals of thirds and sixths (m. 3, Fig. 5), followed by more dissonant intervals (of seventh, second and diminished fifth, m. 4), finally resolving to consonance again (the third on downbeat, m. 5). The discordant change from less tense consonances to the dissonances is initiated by the momentary halt of the constant motion of eighths (marked by asterisk), and enhanced by the syncopation in both voices, that is, by momentary rhythmic destabilization. The maximum distance between the two voices here is only an octave. Note also the crossing of voices (m. 3), tying the voices close together, despite the different characters of the materials.

The function of the first exposition, that is, the opening section of a fugue, is to introduce the thematic material, present it in the different voices of the fugue, above and below one another, thereby revealing not only the character of the different thematic materials, but also their mutual relations, before embarking on voyage for the remainder of the fugue. After the first exposition, the material is restated several times, transposed to different keys, and possibly modified using the traditional techniques of counterpoint.

Fig. 6 illustrates a passage, where the key has changed to C minor. Although this is an *episode*, a transitional passage between full thematic entries of the subject, the texture consists of thematic material – properties of the subjects – which are manipulated (using contrapuntal techniques and according to stylistic conventions). The material is partly inverted (vertically) from the original, partly the same. The modified countersubject 2 now slithers upwards. The head of the subject is slightly abridged and also turned upside down. The rhythm of countersubject 1 has been altered, but the slowly, chromatically descending contour remains. Yet, depending on how the listener is familiar with the material and on their habits of listening, the perceived treatment of the material might verge on limits of recognition.

At the end, the last exposition returns to the original key, usually restating the thematic material again as complete themes. The modulations to different keys and the changes produced by transpositions and contrapuntal techniques on the material between the framing expositions constitute the signifying narrative in the fugue.

Figure 6. An excerpt of an episode in the second exposition of the same fugue (mm. 27–29).

The distinctive characters – identities – of the thematic material (the subject and the countersubjects) and their treatment in each of the four voices in the expositions and different keys lay the basis for the (intended) signification in the fugue. On the one hand, the different, complementary characters and distinctly identifiable features of the material, which (at least in the end) persist through the modifications and make it possible to interpret the *subject* and the *countersubjects as virtual subjects*, each with a “personality” that stands in relation to those of others. The narratives they produce can be observed and experienced pathetically, that is, by setting one’s listening perspective in the position of the thematic material, or empathetically, from an outsider’s perspective. On the other hand, the listeners may assume a position where the *voices* of the fugue are perceived *as virtual*

subjects, and again, may position themselves to listening either empathetically or pathetically. That is, the listener may observe the narrative as an unfolding of different kinds of events that are based on the thematic material and its modifications in each voice *in toto*, or especially identifying with one voice (perhaps based on the listener's own register of speech, singing voice, or instrument played), and observing the narrative from the perspective of that voice, in particular, in relation to those of the other voices.

Either way, regardless of the listening perspective, the thematic material and its changes, being presented and represented in different voices, in varying combinations, both simultaneously and sequentially, in varying (tonal) contexts (of keys), and in varying forms (yet with their *identity* more or less in tact), the narrative texture of the fugue allows interpretation as a narrative of virtual subjects, protagonists and antagonists, and their mutual relations as metaphors of social relations.

Conclusion

It now seems possible to return the transcendence in the Z-model to the Peircean (and pragmatist) notion of inquiry. Although dissipating and volatile, sound is an actual object that causally affects us as objects in the world. Sound constitutes hard facts. In musical praxis, with the *humanly organized sound*, we produce those hard facts in order to convey soft facts and subjective meanings for ourselves and others to experience. Operating on embodied metaphors, the hard facts in music may stand for hard facts, and thereby soft facts, meaningful to human life. Sound and its features may stand, as hopefully illustrated by the two examples, for the bodily selves (of *Moi1*), for subjects with habits and identities (*Moi2*), for social roles and practices (*Moi3*), and, finally, for values and norms (*Moi4*).

When we perceive sound, in music, as constituting signs that stand for subjects, features of subjects and relations of subjects, we participate in a semiotic process that explores social relations and social interaction. The social in music is present by means of metaphoric spatiality, as well as in the actual social and cultural processes of musical praxis: listening and reacting to sound, performing, arranging and composing, in any role we take. Regardless of the role, the participation in music affords playing and testing of acts and events, anticipating situations and change. Music constitutes a safe, purposeful laboratory of embodied, cognitive, social and cultural meaning-making, spanning from the bodily self to shared experiences, habits, practices and values – a meaningful, multifarious, soundly organized part of humanity – and should therefore be a human right.

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Музыка как произвольный подход для изучения социальности

В статье рассматриваются возможности музыки в изучении социальных аспектов семиозиса: каким образом музыка выступает означаемым по отношению к социальному (принимая во внимание, что музыка в своей основе является социальным, вовлекающим процессом).

Автор переносит понятие «жесткого факта» Пирса на «мягкие факты», к которым мы приспособляем свое поведение для того, чтобы уживаться в обществе. Мягкие факты как общие убеждения постоянно перепроверяются и обновляются. Представление самого себя также постоянно корректируется, сопоставляясь с

репрезентациями внешнего мира, предлагающего нам позиционирование себя с помощью эмоций.

В музыке композиции звуков представляют собой твердые факты, являясь метафорами других, как мягких, так и жестких фактов. Разработка и реструктуризация музыки позволяют безопасно пробовать и проверять акты и события, предвидя приближающиеся ситуации и изменения в мире через социальные и несоциальные виртуальные ситуации. Анализ музыки показывает, как характеристики звука предлагают сложные способы построения и интерпретации метафор, а также как музыкальные нарративы проявляются посредством представления метафор существования, идентичности и отношений.

Muusika kui mittearbitraarne tee sotsiaalsuse uurimiseks

Artiklis vaadeldakse, kuidas muusika võimaldab käsitleda semioosi sotsiaalseid aspekte: kuidas muusika tähistab sotsiaalset lisaks tööga, et muusika on olemuslikult osalusel põhinev sotsiaalne protsess.

Pentti Määttänen laiendab Peirce'i 'kõvade faktide' mõistet 'pehmetele faktidele', millega peame oma käitumist sobitama, et ühiskonnas toime tulla. Pehmeid fakte kui ühiseid uskumusi kontrollitakse pidevalt ja uuendatakse järelepärimiste valguses. Eneserepresentatsiooni viiakse samuti pidevalt korrelatsiooni, tuuakse kokku ülejäänud maailma representeerimisega, mis pakub Ise positsioneerimist viisidel, mida me nimetame emotsioonideks. Muusikas moodustuvad helide kom-positsioonidest kõvad faktid, mis esindavad teisi (pehmeid või kõvu) fakte, olles nende metafoorid. Muusika kujundamine ja ümberkujundamine võimaldab ohutult proovida ning katsetada tegusid ja sündmuseid, ennetades lähenevaid olukordi ja muutuseid maailma sotsiaalsete ja mittesotsiaalsete virtuaalolukordade kaudu. Muusikaanalüüsis uuritakse, kuidas heli omadused pakuvad kompleksseid võimalusi metafooride konstrueerimiseks ja tõlgendamiseks ning kuidas narratiivid muusikas edenevad subjektide eksistentsi, identiteeti ja suhteid puudutavate metafooride esitamise kaudu, tuues esile dialooge, draamat, pingeid ja isegi lahendamist vajavaid kriise.