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# Eero Tarasti, existential semiotics, music, and mind. On the existential and cognitive notions of situation

**Abstract:** In recent decades, there has been a shift both in semiotics and in cognitive science to novel, perhaps more flexible currents of research. This applies to semiotic and cognitive musicology as well, and raises interest in the conceptual correlates in the historical shifts, particularly in how the shifts have opened avenue for addressing both the social and cultural, and the subject's embodied mind in the study of signification within a systematic framework. Emblematic of the paradigmatic shifts, *situation* emerges as a key notion.

From the current, pragmatist perspective, a comparison of Eero Tarasti's existential-semiotic and Mauri Kaipainen's cognitive notions of situation reveals striking similarities. For one, situations become meaningful only in their contexts and through their use, as they are dynamically established in the processes of being in the world. Besides the evident methodological and topical differences, fundamental differences are to be found in the attention paid to the epistemic conditions of subject's being in the world, and the acknowledged complexity of the situations, illustrated by the recursive agent/patient-levels by Tarasti.

For the study of musical signification, the pragmatist approach may help reconcile the differences, contributing to the necessary groundwork for a theory that could incorporate complex, iterative levels of narration spanning between signs as acts, stylistic constraints of musical discourse, social contexts, and epistemes of culture, while also taking into account the view of mind as embodied, embedded, enactive, and extended cognition.

**Keywords:** situation, existential semiotics, embodied cognition, music, signification, pragmatism

## 1 Introduction

Over the recent decades, a paradigmatic shift has taken place in semiotics: a re-turn away from the language-oriented view of signification. This shift resembles the paradigmatic changes in cognitive sciences. In semiotics of music and in cognitive musicology, these advances are particularly pronounced. The study of

signification and mind across these traditions of music research may well yield better understanding of the semiotic and cognitive processes at large.

The history of semiotics has witnessed several strong research traditions, e.g. those of

1. empirical semioticians, studying medical symptoms, etc.
2. linguistic semioticians, such as de Saussure, Jakobson, Hjelmslev and Greimas
3. philosophical semioticians, such as John Locke and Charles Peirce, and
4. cultural semioticians, such as those of the Tartu-Moscow school (see Nöth 1995: 11–38; Tarasti 1990: 5–11).

These traditions or paradigms have constituted the domain of *classical semiotics*. Recently, there has been a shift taking place both in musical and in general semiotics from the classical semiotics to less traditional and more novel, original, and perhaps more flexible currents of research, as professor Eero Tarasti (2000: 3–4, 1998: 39–44) has pointed out. According to Tarasti (1998: 39), the classical musical semiotics attempted “to reduce a musical sign to a normative, constraining set of rules, whether it be a generative grammar, style norms, or various classes of signs as defined by general semiotics.” More recently, “one need not try to reduce the object to a code system, but may conceive of it in a more phenomenological and hermeneutic way so as to understand its originality” (Tarasti 1998: 40).

In cognitive sciences, somewhat similarly, the classical, *symbolic* paradigm emphasized verbal language, symbol manipulation, and rules. It also relied on computer metaphor, and serial or linear computing – computationalism. To a degree, the classical paradigm survived parallel to the more recent cognitive paradigms, such as the *connectionist* (a.k.a. associationist, subsymbolic, non-symbolic) paradigm of the late 20<sup>th</sup> century, fostered particularly in neurophysiology, natural and artificial neural network research, parallel computing, and naturalist modeling of cognition. More recently, however, the classical and connectionist views have given way to the subsequent, interdisciplinary 4E paradigm (paradigm of embodied, embedded, enactive, and extended cognition; see, e.g., Newen, De Bruin, and Gallagher 2018), and the cognitive views of subject and mind as a brain/body-in-the-world system (e.g. Rossi et al. 2019).

These changes apply to cognitive musicology as well. While both the older and the newer paradigm of cognitive musicology consider music a cognitive process, the difference lies in beliefs regarding what kind of representative system music is or uses. In the older, symbolic paradigm, music was regarded as rule-based symbol manipulation, akin to verbal language, as opposed to the newer view of music as asymbolic, non-arbitrary process of (embodied and social) interaction, that has uses or functions for organism’s being in the environment.

Emblematic of the new paradigm in semiotics, Eero Tarasti's existential semiotics has searched for a balance between the communicational and the signification. Central also to the quest of cognitive inquiry to understand the mind's functioning in the world, *situation* emerges as a key notion. Despite the differences between the traditions of semiotics and cognitive sciences, the existential and cognitive notions of situation have striking similarities. The similarities suggest a possibility of a *pragmatist* reconciliation of the contentions between the semiotic and cognitive fields. In this article I explore, through the viewpoint of music research and the key notion of situation, how the recent changes in semiotics, particularly Eero Tarasti's existential semiotics, and the concurrent changes in cognitive science align with one another. As but one representative case of the latter, I make use primarily of the associationist paradigm as expressed by Mauri Kaipainen in his (1994) book *Dynamics of Musical Knowledge Ecology*. Similar comparisons could be made between other sources, but a more thorough analysis from the viewpoint of history of science would be out of scope here. Yet, the interest here is in the conceptual correlates in the historical shifts, that occurred quite simultaneously across the strands of research, from the "classical" stages, founded on linguistics, structuralism, and (arbitrary) symbol manipulation to the more holistic, dynamic paradigms. The shifts have turned out critical as they opened avenue for the contemporary theories on signification, that are able to take into account, with better balance, both the social and cultural, and the subject's embodied mind.

## 2 Paradigmatic shifts in semiotics, cognitive science, and musicology

In grand scale, the new directions of the late 20<sup>th</sup> and early 21<sup>st</sup> century musical semiotics have been holistic, scrutinizing "the whole situation of communication, taking into account the fact that every sign is an act committed by some subject." (Tarasti 1998: 41). While in (1998: 41), Tarasti expected that "this concrete physiological and bodily perspective" might open up an avenue for analysis, "which connects music to the prevailing epistemes of a culture, to its dominant canons, to the stylistic constraints of musical discourse," he also expressed his concerns regarding the approaches in which "[m]usic is viewed merely as a transaction according to the traditional model of communication" or in which the musical sign is contextualized "as a way of living in a sociological context" or "as a transmission in modern media society" (Tarasti 1998: 43). Consequently, in search for

an approach that balances both the communicational and the significational, he embarked towards existential semiotics (Tarasti 2015, 2012, 2000, 1996a).

Interestingly, the shift in semiotics “away from universality, and toward more particularity” (Tarasti 1998: 40) is reminiscent of the paradigm shift in cognitive sciences in a specific way. Namely, it coincided quite well with the shift away from the exclusive top-down, rule-based, constraint-oriented and grammar-searching symbolist view of the classical cognitive science and the “good old-fashioned artificial intelligence” towards including and preferring the subsymbolic, neurally-inspired connectionist paradigm.

Illustrative of this, Tarasti (1998: 40) referred to Raymond Monelle’s deconstructionist analyses (Monelle 1992), in which “textual ‘ruptures’ are identified, which momentarily reveal the universe of unarticulated semiotic, the pre-symbolic world of gestures and desires.” Meanwhile, in cognitive sciences and cognitive musicology, the target of study moved from a hermetic mind, black-boxed brain or operationally more or less static symbol-manipulating machine into a (more or less) genuinely existing sensomotor organism dynamically interacting with the objects of its environment, with or without symbols. Similarly, in musical semiotics, the target of study moved towards that of the new, connectionist paradigm in cognitive musicology: from a static musical object equipped with a code and thereby significant in itself in virtue of its internal relations into a dynamic musical process and its ecology involving both musical objects and musical subjects, and the relations thereof, implying referential or contextual analysis in addition to analysis of the inner relations of a musical object or work of art.

These shifts in both semiotics and in cognitive sciences, seem reactions to the earlier linguistic turn (Rorty [1967] 1992), a *re-turn* away from the language-oriented view of signification as a symbol-manipulating, rule-based system. In musicology, this entails a “shift from mere observation of a musical utterance (text)” (Tarasti 1998: 41) to the more holistic view of scrutinizing the whole situation and subject’s (and organism’s) embodied role in communication. As Tarasti (1998: 41) put it, “[i]n general, one realizes that communication involves a dialogue between subject and utterance. Efforts in this direction have been made in psychoanalytic and feminist-oriented analysis, where scholars have theorized how the human body is projected into music.”

The differences between the old and the new are radical. From a pragmatist perspective, the new in musical semiotics as described by Tarasti seems to get to the heart of it: The dialogue between subject and utterance as described above corresponds to the Deweyan process of shaping and reshaping (see Dewey [1934] 1980: 51). In contemporary musical semiotics, music is understood as a holistic and dynamic process of communication or dialogue involving embodied, social subject and subject’s meanings, actions and experience. Instead of static struc-

tures and musical works, for instance, we are dealing with subject engaged in dynamic processes of interaction. In Tarasti's existential perspective, "music is portrayed as a rich interaction between all participants in the communication and the meaning involved in the music itself" (1998: 43). Essentially, this disrupts "the unidirectional, linear-chain model, since in real communication our exchanges go back and forth and not in just one direction," and consequently, "music already appears as a certain situation rather than as a fixed object" (Tarasti 1998: 43).

Here we encounter something that we come across in conjunction with the contemporary cognitive approach to music: the notion of situation. How do the key notions of *situation* in two contemporary musicological traditions relate to each other?

### 3 Situation in existential semiotics and cognitive musicology

According to Mauri Kaipainen (1994: 15), the fundamental assumption of cognitive musicology that "music is regarded as a process of the human mind" implies, that "there is no manifestation of music without cognitive involvement" by cognizing organisms engaged in the process. It is worth emphasizing, that in the connectionist view, music, being a process, was no longer considered to exist as static objects although objects are involved. Since music "unfolds in time," and the process is driven "from mental states to others," the nature of the musical process is inherently dynamic (Kaipainen 1994: 20). Following the tradition of methodological solipsism (e.g. Fodor 1991), the premiss was that music "can always be characterized as knowledge interaction between an individual and her/his sonorous environment" (Kaipainen 1994: 23). More recently, this has been expanded to considering how musical processes may or may not involve others, and Zbikowski (2012: 152), for instance, has pointed out how the cognitive science has further transitioned during the past two decades from viewing "the mind as individual and incorporeal, and on thought as the exclusive province of language" to recognizing "that the human mind is also a social mind, that experience shaped by the mediation of the human body does much to shape human cognition, and that language captures only a portion of what can properly be called thought."

As a representative of the connectionist paradigm in cognitive musicology, and furthermore, focusing on knowledge ecology, Kaipainen (1994: 21) also subscribed to "musical holism" and asserted, that

musical representation must be based on what we sense as our internal states. This includes primarily the input of the auditory modality, but also vision, somatosensory and motor information, representational states generated by the brain, and possibly other internal states (e.g. hormonal) – altogether forming a holistic configuration of features that defines the coordinates of the music-cognizer in the virtual experiential space, present in parallel at any given moment.

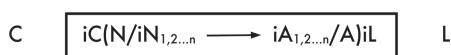
Corresponding again with the notions of shaping and reshaping imagined and perceived situations (Dewey 1980: 49), Kaipainen called these holistic configurations “musical situations” (1994: 21).

In comparison, Tarasti’s existential semiotic concept of situation “first of all refers always to a certain particularity” (1998: 44), in the sense that typologisation of situations “presumes that the situational phenomenon has first been investigated as its own entity.” According to Tarasti (1998: 45), “situation cannot be explained as a series of detached causal chains, but rather as a continuous intermingling of events representing various modes of being in the real contexts in which they occur.” More precisely, “[s]ituation is that part of the world with which one enters into a relationship. One is in a relationship to the world via his/her situation. Situation is the whole of all those phenomena, objects, and states of affairs under which and by which a person’s organic and conscious existence is realized. Situation always consists of a space of play – a *Spielraum* – of various factors” (Tarasti 1998: 45).

I read this as a manifest against a serial, linear, rule-based, absolutely (pre)determined view of signification, in which one state of affairs unavoidably would lead to another and that again to another. The notion of situation is central in cognitive, semiotic, as well as pragmatic approaches to signification: it is not only an interface or contact surface between subject and the world, but rather, the ever-changing situations are the interactions and the consequent mutual relations between the subject-organism and the actual world and all that it entails, in terms of other subjects, the actual process, and its context. Situation is what joins action and experience (cf. Määtänen 1993); it is where the subject and the actual world are joined. It is through situations that we exist in the actual world as organisms, and in our phenomenal worlds as subjects, and, finally, as agents in our social groups and cultures.

The existential approach insists on taking the uniqueness of situations into consideration as opposed to generalizing categorization, and therefore the analysis of situation ought to be scalable to different scopes, pending on the needs of scrutiny. Here, the needs are not focused on the surface structures, but the main interest is rather in the whole, both as semiosis in general and musical semiosis in particular are concerned, uniqueness of particular situations notwithstanding.

As far as music is concerned, musical communication and musical signification merge in the concept of situation: “A musical situation should be taken as the crossroads of signification and communication.” (Tarasti 1998: 46.) A typical model of communication (see, for instance Eco [1976] 1979: 33; Jakobson 1960; the Shannon and Weaver model in Shannon 1948) consists in coded message being transmitted through a channel from sender (source, emitter, etc.) to recipient, both with their codes and contexts. This traditional, simple, one-directional model can be replaced by a model that recursively embeds the agent/patient relations such as composer/audience or narrator/listener into concentric levels, for the benefit of examining musical narrativity (see Figure 1.).



**Figure 1:** The communicational and signification structure of narrative music. Adapted from Tarasti (1998: 47; 1996b: 434). In Figure 1,

C = the physical composer, that is, the creature “subject to historical and organic processes” (Tarasti 1998: 47)

iC = the implied composer, that is, “someone with a certain competence, who provides his musical message with signs” (Tarasti 1998: 48)

N = narrator, who, in each work, “organizes musical events according to a certain kind of logic, while taking into account a possible audience” (Tarasti 1998: 46)

iN = implied narrator, or theme-actors as agents, “which functions in a purely musical sense in such a way that it influences another theme-actor” (Tarasti 1998: 46)

L = physical listener

iL = implied listener, that is, the one who can “presumably receive and decode correctly” the signs provided by the implied composer (Tarasti 1998: 48)

A = audience, that is, the patient for whom the musical events are organized by the narrator in each work

iA = implied audience, or theme-actors as patients, that is, “theme-actor, which behaves as a recipient” of the purely musical action (Tarasti 1998: 46)

In brief, “the whole world of text is situated” (Tarasti 1998: 46) in the actual (physical) world inhabited by the actual composer and the actual listener. Matters related to performer, interpreter, etc., are omitted here, but could be incorporated by extending the model. As Tarasti (1998: 49) noted, a logical consequent of the view of situations as acts or events is that they can be described in terms of the logic of act and action, such as G. H. von Wright’s (1963) elaboration. Within the world of text (marked by the rectangular in Figure 1), the actual relationship of agent and patient is reiterated in embedded levels of narration. Consequently, while situation may refer to situation of the actual world, within music – or any other narrative – situations within the world of text represent: “elements of

outer reality are internalized so as to form factors that wield influence inside the musical discourse” (Tarasti 1998: 48).

Musical situations, regardless of the level of presentation or representation, are amalgamations of interaction of the agent and patient. “In music, situation always implies an actor; no situation can exist without an actor somehow pertaining to it. Therefore, what is crucial for a musical work is the way it draws listeners into this situation and invites or even forces them to participate in it. Situation is thus an act (i.e., an active situation) or an event (i.e., a passive situation) of a musical subject.” (Tarasti 1998: 49.)

Bluntly compared, both Kaipainen’s cognitive notion of situation and Tarasti’s existential notion of situation refer to particular instances or states of continuous complex holistic configurations that, in virtue of subject’s interaction, represent – stand for something – in their contexts. The configurations may represent via their internal relations and via their relations to other configurations of the world, which is also inhabited by the subjects involved in the situation (albeit the connectionist view did not take the social into account). In themselves, situations do not convey meanings or carry significance. They are not meaningful by themselves. They become meaningful only, and always, in their contexts and through their use, which are established during the process of semiosis, in cognition. That process of semiosis or cognition is the process of interaction with the actual world by the subject, subject being immersed in the world.

Besides the evident differences in methodology and detailed topics of research, the key difference between the two notions of situation in the paradigmatic shifts seems to be that the cognitive notion relied on methodological solipsism, in the way that the possible intersubjective issues were avoided by examining the interaction only as an interaction of organism and its environment. Consequently, the possible iterative levels embedded in narration were simplified to the single level between the organism and the actual environment (see Figure 1).

The existential notion, in turn, embarked upon the intersubjective end, top-down, rather than bottom-up, and seemed to disregard detailed analysis of the mind–body problem, although not categorically excluding it either. For the cognitive scientists, the mind–body problem is a central question, which got answered, briefly put, by folding any of the complex virtual experiential states or higher levels of representation back to the knowledge dynamics of the representative system, featuring, then, distributedness, parallelism, nonsymbolism, and connectionism. In other words, the starting point of the cognitive notion (in the connectionist paradigm) was a bottom-up approach, and situation pertains first and foremost to the low-level representation (while some kind of an insurance against the problems of implementation was usually taken), regardless of the simplicity or complexity of the holistic situation, as noted above. The simplification of the



levels of narration led to critique, and in the study of real life musical processes, this kind of simplification must at some point be overcome in order to reach the complexities, and sometimes even paradoxical aspects of signification and communication. At the same time, the connectionist methodology was a rewarding choice as it provided, in a relative short period of time, noteworthy results in the attempts of understanding particularly the so-called low cognitive faculties before taking up other challenges addressed today in cognitive science.

The existential notion of situation, in turn, differentiates a continuum of recursive levels of agent/patient, and while each level is tied to or manifested in the narrativity of the signifying process, it is not (necessarily) concerned with implementation, that is, with the actual operation of the representative system, but only the functional operation. Through its broader context of existential semiotics, the existential notion of situation is also in strictly critical stance on connectionism and the attempt to explain the so-called higher cognitive faculties based on descriptions of neural networks (see, for instance, Tarasti referring to G. H. von Wright's argument of a brain surgeon in Tarasti 2000: 4–5).

## 4 Pragmatism as a potential way to reconciliation

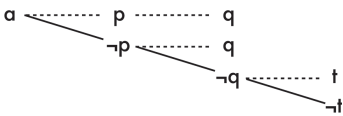
Hence, fundamental differences between the cognitive and existential notions of situation are to be found in how much attention is paid, first, to the epistemic conditions of how the subject's being in the world (or being-in-the-world) is tied to, based on, or constrained by the actual world inhabited by the subject's organism; and, second, to the complexity of the situations, as illustrated by the recursive agent/patient-levels. More so, fundamental differences can be found in their relations to naturalism.

Consequently, major issues appear to stand in front of convergence of the threads of cognitive and semiotic musicology. It seems, however, that with the help of naturalist pragmatism, there may open an alternative to reconcile some of the main incompatibilities between the cognitive and existential semiotic: the unheeded grounding of socially significant interaction into actual reality in existential semiotics, and the seeming solipsism and situational simplicity in cognitive semiotics (see also Madzia and Jung 2016). The key seems to be found in the explanation for the emergence of the competence underlying the communicative act, that is, the epistemology of signification.

While the reconciliation of the existential and cognitive conceptions of music does not seem impossible, whether these differences can be reconciled, or need to be reconciled, is now beside the point. What is attempted here is the

examination of certain salient features of these notions of situation and music for the benefit of working towards understanding the processes of musical signification.

Therefore, let us continue with the existential semiotic notion of situation for a moment. This will take us to a very pragmatist aspect of music, present also in the existential notion, namely usefulness. Situations provide “an occasion for an event or an act to occur or to be accomplished” (Tarasti 1998: 51 – here Tarasti followed G.H. von Wright 1963). In narrative processes, occurring events create sequences in which one situation may or may not be followed by another one, that is, event  $p$  may result in event  $q$  or event  $\neg q$ , and so “there emerges a network of alternative chains of events,” a network (idem, see Figure 2).



**Figure 2:** Network of alternative chains of event, and the actual chain of events. Adapted from Tarasti 1998: 51.

A musical style is a *habit* that takes shape as alternatives in the chains are observed. There are possible choices for each branch in the network of events, and a chain of those that actually occur. “How we conceive the range of possibilities,” that is, musical style, “is a consequence of what we observe on the surface of the reality,” that is, the actually occurring events (Tarasti 1998: 51). We learn the possible choices by observing the occurring choices. And vice versa, we choose the events from the possible choices based on their usefulness to us, that is, their meaning. This idea of learning situated possibilities clearly correlates with the process of enculturation, and more broadly to adaptation. Also, Tarasti (1998: 51–52) connects this idea with Heidegger: “*Dasein* represents the whole situation with all its possibilities. *Da-sein*, however, refers only to the being-there of the surface reality.”

The narrativity that is created through the dialogue between the continuation of expected or possible, and the actually occurring continuation of the situations provides a possibility to create a virtual world with its own logic, own habits, own time and space. “When a primitive man, while listening to or telling a myth, sinks into a fabled and extrahistoric time, for us the need to escape mentally into ‘a strange universe and time’ is fulfilled when hearing music” (Tarasti 1978: 33, quoting Mircea Eliade’s expression from *Aspects du mythe*, 1963). Thereby music, just as myth, may be effective in resolving conflicts or contradictions of the actual life by transferring them to a virtual reality of its own, in which the alternatives may be tested safely (Tarasti 1978: 33).

“Situation might be easily identified with a space,” Tarasti pointed out (1998: 49), and hence, the continuum of actually occurring situations versus situations that are possible at any given moment could also be approached in terms of actual and virtual (or phenomenal) spaces, and musical narrativity as changes in actual and virtual space. It is noteworthy, that both Tarasti and Kaipainen (see the quote above on musical holism) make references to space. It seems that the key notion of situation and the whole of the signifying process can be approached in terms of space as a conceptual tool (see Ojala 2009, 328–342).

While Tarasti has connected situation and situatedness as existential concepts with Heidegger’s concept of *in-der-Welt-sein*, and has not underwritten the naturalist groundings of the representative process, similarities to cognitive and pragmatist concepts such as object, organism, action, interaction, experience, mind, subject, and representation are striking, and the same holds for the conception of music, at its core. Music is meaningful, not in virtue of the sound itself regardless of the subjects, but through the relations of the musical sounds within themselves, and together with the experiential aggregate of the subject interacting with her environment. The experiential aggregate is accumulated in order for the subject to be in the world. And the significance of musical processes can be found in their ability to provide means of working out virtual situations, that is, situations that stand for actual situations of the world, in order for the subject’s mind to guide the actions of the organism in the actual world. (This is a very pragmatist conception of music, cf. Ojala 2009, 94–156.)

Consequently, music has uses or functions for the individual (and society, and culture), through subject’s relation to and interaction with the world, and hence the term ‘existential’ is very apt in this context. From this perspective, it is no surprise the cognitive study of music has then evolved towards including the embodied subjects, and the social. Music operates by means of situations and events, and their expectations and confirmation or disconfirmation, and these situations somehow stand for – are signs of – situations that may actually or possibly be encountered in the world.

## 5 Conclusion

To summarize, it can be noted, that at heart, there is much in common between the existential, cognitive, and pragmatist conceptions of music. At the same time, still today, there remains much of the necessary groundwork to be done within both semiotics in general and musical semiotics in particular, in order to construe a logically solid understanding of musical signification that would incorporate

the differing stances or mutually compatible conceptions in various traditions of musicological research. This was aptly marked by Tarasti (1998: 45–46), as well: “An entirely different *semiotic* program takes shape on this basis, which is not very far from Peirce’s triadic sign categories. If *representamen* refers to organic process, to something physical, the *object*, in turn, to facticity, to that sign content which stems from outside, from ‘reality,’ then the *interpretant* would imply the consciousness, as a concept, which in our minds unites sign with the object. This new program takes a negative attitude towards linear causality and dissolves it into three dimensions of an existential sign: its facticity (being in *Dasein*), its physical aspect as an organic process, and its role in the consciousness.”

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