

THE SEMIOTIC GESTURE

Ole Kühl

Centre of Semiotics, University of Aarhus; Royal Academy of Music, Aarhus.

ABSTRACT

Musical meaning is fluid. The same piece of music can mean different things to different people, and the same person can experience a piece of music differently in different contexts. This does not mean, however, that the relationship between music as perceived structure and music as experienced content is absolutely arbitrary. We can share a musical experience, we can identify with specific musical styles, and, most importantly, we seem – in all cultures and at all times – to use music as an indispensable part of our most meaningful moments, as a device for sharing and bonding. So, although musical meaning cannot be pinpointed in any specified manner, like the meaning of language, there is still an amount of stable substance in musical communication, which can be defined. The most important, stable element in a musical semantics is the primary signification from musical phrase to gesture and from musical gesture to emotional content and social belongingness.

Introduction

The musical gesture epitomizes human expressivity. It represents an implied level of communication, in which a musical phrase signifies a gesture. In this way, gesture becomes the key to the understanding of musical meaning. To borrow an elegant formulation from Colwyn Trevarthen, ‘music is audible gesture’ (Trevarthen, 2000: 172). Our perception seems to extract certain shapes and patterns from the surface of the musical stream, which are subsequently represented in the mind as internalised gesture. This is no surprise for those of us, who happen to experience music in this way, and there is further confirmation from neuroscience that somatosensory centers in the brain are active when we are engaged in musical activities. It is, perhaps, a little more surprising that one of the primary voices against the idea of extramusical meaning – that of Eduard Hanslick – also could be interpreted in support of this idea. What else should Hanslick mean by his famous statement that music is ‘*Tönend bewegte Formen*’, which has been variously translated as ‘dynamic sound-patterns’ by Susanne Langer (Langer, 1942: 225); as ‘tonally sounding form’ by Robert Hatten (Hatten, 2004: 224); and as ‘sonically moving forms’ by Thomas Grey (Grey, 2006)?

In what follows, I shall discuss the psychological and cognitive perspectives of this strange phenomenon of metaphoric mapping from the sound domain to the body domain. I shall then plead for a re-orientation of musical semiotics, where I will be arguing that the gesture represents a denotational level in music. Finally, I shall propose that the musical gesture, as a sign, represents the link between music as sound, on the one hand, and an intersubjectively founded social and emotional content on the other.

Gesture as Expressive Sharing

The view of musical gesture that I am advocating here, is inspired by the work of developmental psychologists like Colwyn Trevarthen and Daniel Stern (Trevarthen 2000; Stern 1998). According to their account of the development of social and cognitive skills, our unique human ability to have a language and a culture begins with the primordial experience of the intersubjective sharing of emotion and sensation between infant and careperson. It seems that our earliest, dyadic communication combines gestures with vocalisations and touch, thus unfolding in several modalities simultaneously: visually, somatically, and aurally.

There is ample clinical evidence that perception at the earliest stages of consciousness is not modality specific (Stern, 1998: 57 ff.; Trevarthen, 1994; Trevarthen, 2000). A perceived gestalt in the mind of a baby is thought not to be tied to the visual, the auditory or the sensory-motoric modality, but rather to be represented amodally. When an infant is engaged in the exchange of gestures, vocalisations and facial expressions with a careperson, there is no distinction for the infant between the different modes of communication (somatic, auditory, and visual). They are, according to this theory, represented in the mind of the infant as a unified, amodal gestalt. Stern describes the properties of such a gestalt in the following terms: ‘The experiments on cross-modal capacities suggest that some properties of people and things, such as shape, intensity level, motion, number, and rhythm, are experienced directly as global, amodal perceptual qualities.’ (Stern, 1998: 53)

The primordial perception can be characterized as integrated, amodal, preverbal, and generic, and only at a later point does it become stratified into different modalities, in fact much of the learning process in kindergartens and preschools is concerned with the establishment of a modality-specific perception, in which the child becomes adept in distinguishing the functioning of the ears, the eyes etc. At a later age many of us lose the ability to consciously access the level of amodal perception, but it is believed that much artistic expression originates from layers of preverbal consciousness, thus being partly dependent on functions of cross-modality.

Considering the development of human cognition in this light, we find that cognitive functions are active at all levels of consciousness. At the deeper, or earlier, levels they form the foundation of a mature and sophisticated cognition, emerging at a later age. It is important to understand that the earliest levels of what Stern calls ‘senses of self’ are not simply replaced, the way a snake sheds his

hide, but stays with us as more abstract levels of thought. And, just like the next stage of consciousness does not replace the earlier form, but depends on it like the learning of arithmetic depends on the ability to count, the development of more sophisticated cognitive functions does not mean that simpler forms are excluded. In other words, even though we may not be aware of it, this early state of intersubjective sharing of amodal gestalts remains with us as fundamental for our social and communicative skills. Such is the origin of the musical gesture.

Musical Element and Cognitive Response

But how are we to understand this phenomenon we call a musical gesture? Can music make gestures? Or is music merely ‘auditory cheesecake’, something that pleases the senses like a stream of hot water in the shower? Cognitive science teaches us that neither is true. Music is sound structured in a human fashion. The structure makes it feasible for humans to respond in certain ways when perceiving the sound. These responses are biologically constrained, while being shared by many people in a culture, and the creators of the music – musicians and composers – shape the music they produce based on their knowledge of our cognitive responses.

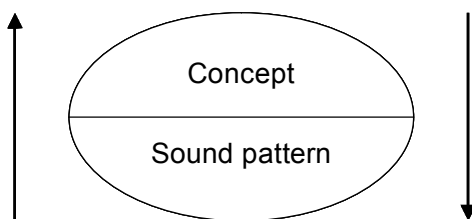
The musical gesture is a cognitive phenomenon, emerging in the mind in response to musical priming. When we listen to music, what we actually hear is an auditory stream, which is subsequently being processed by auditory perception. In order to economically and effectually process the sonic stream of information, our cognitive apparatus stands in need of organizing input in “chunks” of a certain size. These chunks are represented amodally in the mind as gestalts, and variously described as ‘moving forms’ (Hanslick), ‘vitality affects’ (Stern) and ‘energetic shaping’ (Hatten). Musical gesture stems from the generic level of perception, where it is tied to gestalt perception, motor movement and mental imagery. Gestures, accordingly, are rich gestalts, that combine auditory information (hearing the movement) with implied visual information (imagining the movement), somato-sensory information (feeling the movement), and emotional information (interpreting the movement). At a higher level of cognition, gestures are organized in groups and sequences, leading to musical form and narrative, but that will not be considered here.

The Musical Sign

The pairing of musical element with cognitive response, the metaphoric mapping from music domain to motor domain, is semiotic by nature. It pertains to the way human beings make sense of the world. In other words, I am suggesting that the musical gesture – as a cognitive response to musical priming – is a way of making sense of music, through the transformation of the auditory stream to interpretable chunks. The gesture becomes a way of understanding music as a semiotic system, which is comparable to other semiotic systems. Such a view could help to bring music out of its isolated status as a highly specialised phenomenon and into the broader social and aesthetic field of human activity, expression and communication.

In order to understand this, we have to perform a careful analysis of the sign function. Interestingly, the analysis of the sign as a cognitive function brings us right back to Saussure. In his original definition of the sign function, Saussure declares that ‘the two elements involved in the linguistic sign are both psychological and are connected in the brain by an associative link’ (Saussure, 1995: 66). In the sign, Saussure sees the linking of a sound pattern with a concept, where the former is to be understood as ‘a hearer’s psychological impression of a sound’ (Saussure, 1995: 66) and not as the physical sound itself,

Figure 1: The Saussurean Sign Function



For Saussure, the sign is a mental entity, and the sign function is purely phenomenological. We can contrast this with the sign according to Peirce, with whom a sign stands for something to someone (Peirce, 1992). He tries to combine the best of both worlds, holding the sign to be something that links the pheno-physical (mental world) with the geno-physical (real world), thus leaving the status of the sign ontologically adrift. Whether signs are physical, psychological, both, or neither, is never quite clear with Peirce, and his development of sign typologies and levels of signification has not made this crucial question any clearer. This is the crux of the controversy between American semiotics and European semiology, with the American branch leaning ever stronger to the physical side, and the European branch to the phenomenological.

It concerns the present discussion, because musical semiotics to date mainly has been based on Peircean theories. The two most well known and influential theories, those of Philip Tagg and Eero Tarasti (Tagg 1992; Tarasti 1994), have, their many qualities notwithstanding, developed intricate, music-specific sign typologies based on Peirce. This means that they analyze musical phenomena through a coding system, in which a specific musical element is said to belong to a specific class of signs. In order to understand this

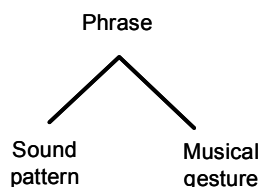
code, you have to understand the sign system, and this understanding fails at a certain point, because of an insufficient analysis of the sign function. Taking a system that is already unclear at the outset, and applying it to something as enigmatic as music, does not bring greater clarity to the field. At the same time, such a procedure adds to the division between music and the rest of the human sphere, because it is based on the assumption that musical cognition is separate from general cognition. Nothing could be more wrong!

The Sign Function

All human activities can be subject to specialization, and humans can develop great skills in any field they set their mind to, including music. But, at the outset, an activity like musical expression and reception is ubiquitously human, and therefore must proceed from general human cognition first, before being specialized. Therefore, an understanding of highly developed musical cognition cannot be valid, if it does not proceed from an account of 'natural', generic musical cognition. And, this account must be based on a theory of general cognition first, before a musical specialization of theories is attempted. A theory of musical cognition can only be useful and valid – for musicology as well as for general cognitive science – when the following is clear: what is the limitations of the general theory that forces us to look for a specialized theory? and how does the specialized theory relate to and improve the general theory?

An analysis of the sign function must be based on cognitive theory and neuroscientific data to be plausible. Using the musical gesture as a paradigm example, we have seen that the auditory system extracts patterns, like musical phrases, from the auditory stream. In a Saussurean sign function these will function as signifiers or *signifiants*. Then a cognitive response is evoked in the form of a musical gesture, which will serve as the signified or *signifié*. The sign is a unified whole with an expression plane (signifier) and a content plane (signified). This makes the musical phrase be experienced semiotically as a sound pattern signifying a gesture. Movement is embedded in sound:

Figure 2: The Musical Sign Function



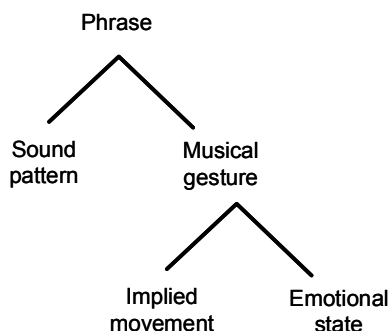
This is the basic musical sign function, and it represents the denotational level of musical signification. The cognitive function: musical element to evoked response is basically a sign function with an expression level and a content level, like Hjelmslev demands of a biplanar or true semiotics (Hjelmslev, 1961). One can find many other music-response pairs like this, but the sound-to-gesture sign is generic because it instantiates the embodied level of musical experience. Just like the musical gesture is the key to musical meaning, the phrase-to-gesture sign invokes a new, semiotic approach to musical analysis.

The Meaning of Gesture

When we compare a sign like the musical phrase with a sign like a sentence, we see of course that the musical sign has a low level of specification, while the linguistic sign has a high level of specification. The musical sign is more vague, more general, while the linguistic sign is more precisely defined. This difference does not make the musical phrase any less a sign. Instead, it should be seen as a qualitative distinction between two semiotic systems, telling us something about what it means to be human. The apparent vagueness of the musical sign does not make it completely empty, a non-sign as Umberto Eco would have it (Eco, 1976). The specification is at a lower level, indicating a general direction rather than a specific object. A gesture communicates, in fact it represents a more basic or generic level of communication than words. It is a natural form of communication, the first one learned, and the last resort when language fails. It has become internalised through a so-called Vygotskian turn, and now it can be activated by music as a mentally represented gesture, as indicated by activity in the Supplementary Motor Area (SMA).

The gesture is a physical expression of feeling and sensation. The intersubjective sharing of facial expressions and communicative gestures means the sharing of inner states of being. These kinds of somatic signs are directly conveying information of a subject's emotional state and intention. Such information is embedded in the gesture-as-sign, and evoked by the implied gesture of a musical phrase. The signified becomes a new sign with a signifier (movement) and a signified (emotional state), yielding a so-called sign cascade:

Figure 3: The Gesture as Sign



As part of our cultural programming, the re-performance of specific manners of gesticulation and signification – as in classical concerts and other musical rites – represent a level of learning and reinforcement of cultural values and of stylized levels of communication. Music can be seen as a whole semiosphere of signs and sign functions, of signs yielding signs, of learned evoked responses to certain types of input. Gestures transmit meaning, not only in the present, but through history as well. Consider the gallant style of Mozart, which transmits gestures from the royal courts of 18th century central Europe to the present; or the vocal articulations of joy in gospel music, that has saturated so much of 20th century popular music. As embodied meaning, gestures are an important part of our national and cultural identities. And in music, the sharing of gestures is further intensified through the pulse, which brings about a synchronisation of implied movements. This is the power of music.

We can share a musical experience, we can identify with specific musical styles, and, most importantly, we seem – in all cultures and at all times – to use music as an indispensable part of our most meaningful moments, as a device for sharing and bonding. So, although musical meaning cannot be pinpointed in any specified manner, like the meaning of language, there is still an amount of stable substance in musical communication, which can be defined. The most important, stable element in a musical semantics is the primary signification from musical phrase to gesture and from musical gesture to emotional content and social belongingness.

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