

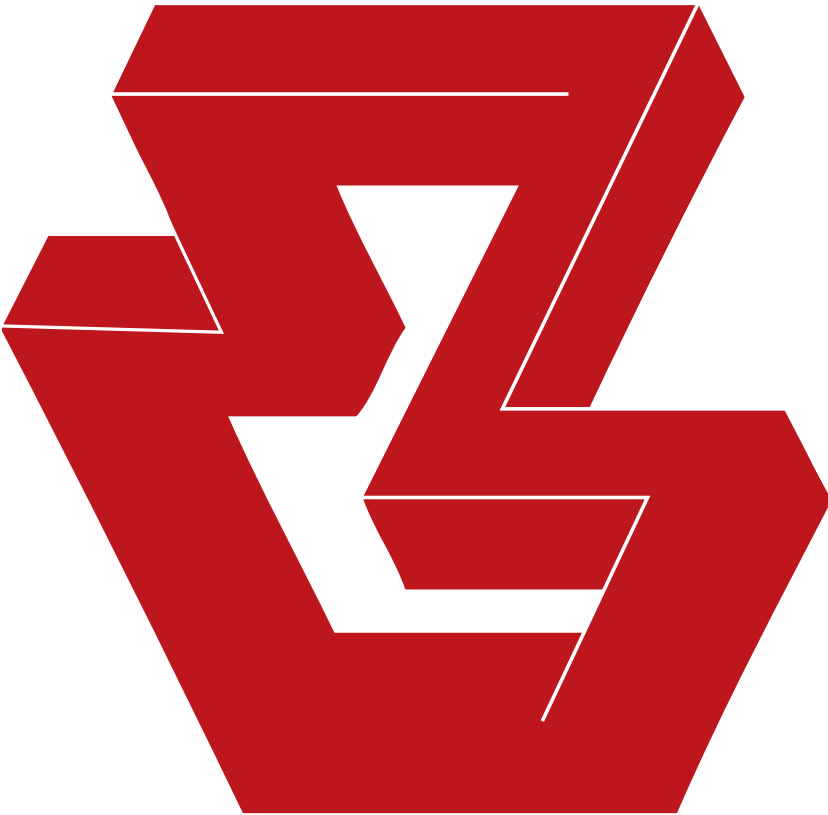
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*A multimodal model for musical meaning-making –  
designs for learning in choir*

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# DESIGNS FOR LEARNING #1/11

# A multimodal model for musical meaning-making – designs for learning in choir

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*This article presents musical communication from a multimodal, social semiotic and design-oriented perspective. Based on the notion that communication and learning constitute a social process of transformative sign-making, the article explores how choir conductors during video-recorded rehearsals and concerts use different modes of communication, such as gestures, gazes, body movements, singing, printed score and piano playing, as representations of the music they are working with, and how these modes are transformed into singing voices through translation, reshaping and imitation. The way conductors design their approaches to the music affords various choices and conditions for choir singers to learn and perform the music. The article draws attention to the complexity and multiplicity of an audiovisual music culture, characterised by different repertoires of action in performing and illustrating the music and by choir-specific, genre-specific and locally specific musical language constructions, in which learning is equated with interpretation and performance.*

## INTRODUCTION

This article presents a method to describe musical communication from a multimodal, social semiotic and design-oriented perspective with the aim of drawing attention to the multimodal model for musical meaning-making constructed in my doctoral thesis about musical communication in choirs (Sandberg Jurström, 2009). The great challenge posed to that study was to find relevant methods for studying musical communication that is non-verbal and takes place by way of bodily actions and sounding music. The main aim of the study was to identify and describe how choir conductors in their interaction with choir singers during rehearsals and concerts express and convey the music they are working with. A second aim was to investigate how musical performances as well as opportunities for musical learning are created in different choirs. My thesis therefore addressed the questions (a) how choir conductors use verbal, bodily and technical resources, (b) what functions these resources serve, and (c) how the resources are organized and interact. In other words, the study focused on choir conductors' use of different resources in their musical meaning-making in relation to the conditions for learning that were designed.

For my analysis of the communicative aspects of musical meaning-making and the learning process, the multimodal and social semiotic theory, with its focus on semiotic resources, sign-making, transformation of signs, and

the making of representations (Kress & van Leeuwen, 2001), provided a relevant theoretical framework and useful tools of investigation. In order to describe different conditions for musical meaning-making and learning, I also used the design-oriented perspective (Selander & Rostvall, 2008). Together, these perspectives provide new ways of studying how musical communication and meaning making among musicians can be analysed, identified and described. So, in the present article I will above all highlight the process of sign-making, transformation and representation: (a) how semiotic resources are used and transformed, (b) how resources can be seen as representations of musical ideas, (c) how resources are organized and interplayed in order to give an understanding of how conductors express the music and want the music to be performed by singers, and (d) how different designs create different conditions for learning. I will also illustrate these processes in a multimodal model for musical meaning-making. Finally, I will discuss some conclusions I have drawn from the result.

#### FROM SIGN TO DESIGN

In the multimodal and social semiotic theory, communication and learning are seen as social processes of transformative sign-making (Kress, Jewitt, Ogborn & Tsatsarelis, 2001; Kress & van Leeuwen, 2001; Kress, 2010). In this perspective, meanings are created and constructed by means of socially and historically determined meaning-making semiotic modes, such as speech, gestures, gazes, various bodily actions, images, or technical devices. The point is that human beings always use several different modes, all of which exist simultaneously, in their communication with the surrounding environment. Semiotic modes are thus in constant and transformational interplay with each other, offering individuals the opportunity to rhetorically organise different ways of representing the world and, accordingly, create meaning in various ways. Furthermore, meaning-making is seen as a motivated activity that is dependent on individuals' interests and how they want to form their own expressions in a given context. This view of communication is particularly apparent in the musical communication during choir rehearsals and concerts. I have observed that the communication is complex and full of nuances considering both how choir conductors choose and use semiotic modes such as gestures and gazes, how the modes shape the various ways of illustrating interpretations of the music, and how these modes are transformed by the choir singers into similar or other modes.

In a social semiotic practice, meaning-making can also be described and explained with the help of the concepts discourse and design. Discourse is here defined as “a construction of some aspect of reality from a particular point of view, a particular angle, in terms of particular interests” (The New London Group, 2000, p. 25). An example of a discourse is when choir conductors express various musical intentions and ideas by using pantomimes in order to instruct the music in a dramatized and silent form. Accordingly,

design is then the form used for the contextualisation and realisation of different discourses, and how these are made to function in a given communicative interaction (Kress & van Leeuwen, 2001). The mentioned pantomimic discourse implies a design that focuses on practical illustrations of how music can be performed. Design is also seen as a way to create different communicative conditions for learning in the environment and in the situation that different participants act in. The social framing for a design then influences what modalities are available, who has the right of interpretation, and what actions or attitudes are considered legitimate (Selander & Rostvall, 2008). Applied to a study of musical communication in choirs, these theoretical perspectives made it possible for me to see that the way conductors design their work with the music is realised and shaped by and through how they use different modes, how the modes are transformed, and how conductors represent their own expressions and interpretations of music in different discourses. It was also possible to observe how the designs afford choir singers variation of ways to learn the music.

#### A VIDEO-BASED INVESTIGATION

I considered it necessary to use video recording as a collection method in order to investigate how bodily, visual, auditory and linguistic resources were used in the communication that took place between choir conductor and choir singers. A video recording facilitates making the kind of detailed transcription of the communication necessary to analyse how semiotic resources work together to make meaning (Jewitt, 2006). A video recording also allows for repeated viewing and at a slow pace in order to visualize the complexity of the practices studied (Goldman & McDermott, 2007; Lemke, 2007). With the help of the video recordings I could study how, for example, gazes and gestures were used as a means to illustrate how the music should be sung, how the modes communicate various expressions, feelings and ideas, and how they integrate with other semiotic modes. Not least, it was possible to study how music content can be formed, expressed and illustrated. As regards the multimodal and social semiotic perspective, it is important to note that the researcher can only study and analyse the actors' "attention/awareness levels" (Norris, 2004, p. 5), and how individuals with the help of semiotic modes express interpretations, ideas, thoughts and feelings. The focus is thus on how interpretations and performances of the music are expressed, verbally and through other semiotic modes.

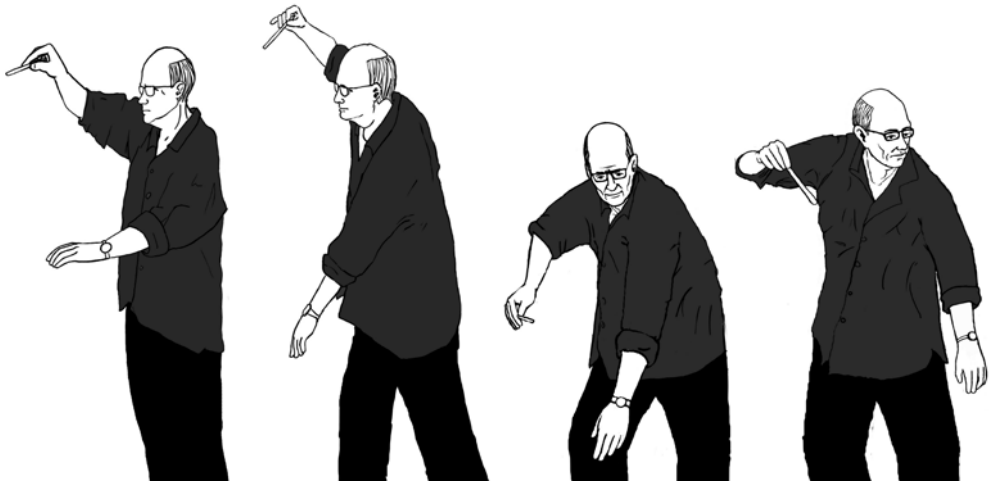
The data consisted of a total of approximately five hours of video-recorded rehearsals and concerts with six Swedish professional choir conductors and their choirs. The repertoire during the study involved classical music as well as gospel music and jazz. In the detailed transcriptions, the use of different semiotic resources such as speech, singing, printed score, piano playing, gestures, gazes, body movements and bodily positions were notated and described. The data analysis was conducted on the basis of Halliday's (2004)

and Kress and van Leeuwen's (1996) metafunctions of language, body movements and other semiotic resources, and also on the basis of the concepts discourse and design. Through the ideational metafunction and the concept discourse, the data analysis could shed light on how different semiotic resources in interplay were used as representations of how the choir conductors expressed and illustrated the music. The interpersonal metafunction of the semiotic modes illustrated how the choir conductors interacted with the singers. With the textual metafunction as an analytic tool it was possible to display how the conductors shaped different entities of designs, which created various conditions for how the music could be learned and performed. This analytical work was an attempt to describe and contribute to an understanding of a musical practice where actions based on bodily movements and non-verbal actions are extensively used.

### SHAPING MUSICAL PERFORMANCES

The variations in how the modes are used and organized by choir conductors when they interpret, express and mediate a piece of music, were termed the *conductors' repertoires of action* in my study. These categories can also be regarded as different forms of discourses, that is to say, meaningful actions with certain attitudes to how the music can be represented and performed. The repertoires of action express the conductors' ways of interpreting and mediating music. Each contains a set of different interacting modes such as speech, gazes, gestures and other bodily expressions. All the repertoires of action function as representations of the conductors' musical ideas, their intentions and feelings, or as representations of the characteristic style of the music in question. At the same time, the repertoires of action are also expressions of how the conductors want the choir singers to perform the music in their own voices. Together, the repertoires of action create variations in the modes of procedure for how a musical performance can be carried out and learned, especially since the conductors approach the music in various ways.

Some of the repertoires of action function as *demonstrations*, illustrating the music indirectly in the form of dramatisation and performance using resources other than those intended for the singers. One type of demonstration is the (a) *pantomimic repertoire of action*, based on a dramatised, figurative and soundless representation of the music and its expressions (see Figures 1-12). This repertoire of action puts emphasis on tacit dramatisations and indirect performances of musical interpretations using gestures, gazes and other bodily expressions, which then must be transformed into song by the singers.



Figures 1-4. Pantomimic representation of nuances.

In Figures 1-4 the conductor shows differences of nuances in the music. He illustrates nuances through the spatial positioning of the left hand, from high to low. A high position of the hand signifies a loud nuance, while a low position of the hand signifies a low nuance. He also illustrates low nuances with his bowed body and legs.



Figures 5-9. Pantomimic demonstration of energy and force.

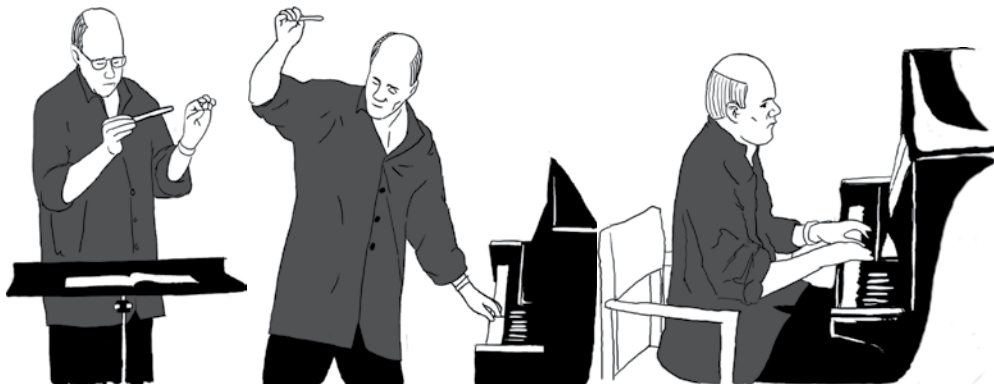
In Figures 5-9 the conductors demonstrate energy and force in the music, illustrated through tensed body, different facial expressions, clenched hand gesture, and taut arm muscles.



Figures 10-13. Pantomimic demonstration of legato, vibrato and a melodic phrase.

In Figure 10 the conductor pretends to play the violin in order to show the singers how to sing the musical tones legato, that is smoothly and ‘tied together’, and with a special sound similar to a violin. She uses her arms in order to imitate a violin player, while illustrating how to sing the song with her mouth. In Figure 11 the conductor illustrates with her waving fingers that she wants the singers to sing with vibrato, that is to say with a regular pulsating change of pitch. In Figures 12-13 the conductor illustrates a melodic phrase with scrolling gestures done with her arms and hands, and with her moving body.

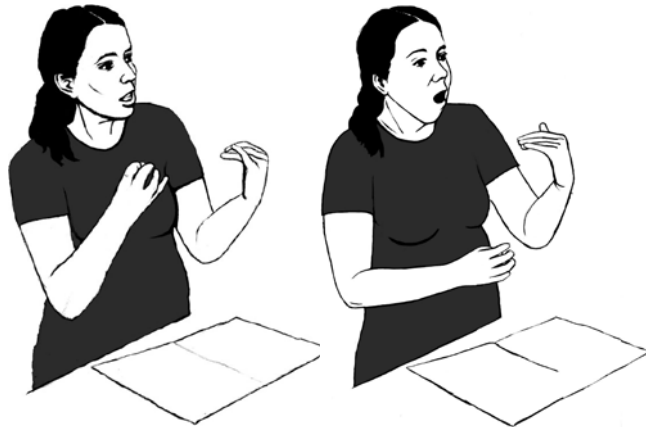
The other type of demonstration is the (b) *performative repertoire of action*, made up of illustrations of different musical passages in sounding form, usually piano playing (see Figure 16). Even here, the idea is that musical interpretations can be created in an indirect form with the help of a semiotic resource other than that intended for performing the music in question.



Figures 14-16. The pantomimic and performative repertoire of action.

In Figures 14-16 the conductor changes from the pantomimic repertoire of action to the performing repertoire by playing the voices parts on the piano instead of illustrating the music with his gestures.

The conductors also illustrate the music directly using the same resources as the choir singers. This form of demonstration include the (c) *prototypical repertoire of action*, which gives the singers both a visual and auditory performance picture of how the conductor interprets and expresses the piece of music with his/her own voice and bodily movements, and with several interacting semiotic modes (see Figures 17-18). In this repertoire of action the conductors use themselves as prototypes and tools to show the singers different possible ways to sing and act in. With their own voices and bodies, they present a direct picture of what they want the singers to do with their voices and bodies in the performance of the music.



Figures 17-18. The prototypical repertoire of action.

In the figures above, the conductor's body movements function as a prototype for the singers. The conductor shows with her own voice, face, mouth, arms and hands how to sing the music, how to pronounce the words, and how to place the sound in the vocal cords.

The conductors also indicate and suggest how the music can be interpreted and performed through *expressive evocation* by using the (d) *associative repertoire of action*. Here the character of the music is connected to expressions that are associated with something emotional and experiential beyond the actual music (see Figures 19-20). The conductors create musical meaning by associating and appealing to other existing non-musical tools and emotions in order to get the singers to sing with a specific feeling and expression.



Figures 19-20. The associative repertoire of action.

In Figure 19 the conductor evokes an image of an elastic band when she talks about the music in terms of going both back and forth. She talks about the interpretation of the music at the same time as she, with her body, illustrates how to stretch the elastic band. In Figure 20 the conductor evokes associations with a personal feeling when he shows the singers how to sing the music. He puts his hand on his chest, pats it with his hand and talks about the music as a feeling and a thought in the chest.

In contrast to the demonstrative and evocative approaches, there are actions in which conductors create musical meaning by means of *explanation*. In the *conceptual repertoire of action*, they give descriptions of the structure of the music in terms of musical concepts. Here the conductors talk about music in a factual and analytical way and with the use of conventional musical terminology. The *evaluative repertoire of action* is based on evaluations of the sound qualities of the choir singers' song. Here the conductors express different evaluations of what has been sung, both with verbal and bodily explanations. They create musical meaning by praising and affirming the singers, and also by comparing and correcting the singers' use of different semiotic resources.

The above-mentioned repertoires of action demonstrate the complexity of how the conductors use semiotic resources, how these resources cooperate, reinforcing and complementing one another. These repertoires of action never exist alone; they are constantly linked, they overlap, and the conductors sometimes use them together in different layers.

#### CREATING DESIGNS FOR MUSICAL LEARNING AND PERFORMANCES

My study demonstrates how the choir conductors create music meaning by using the repertoires of action in different ways. The wide variety of the conductors' repertoires of action is significant because it indicates the vast array of possibilities through which singers can learn and perform the mediated

music in rehearsals and concerts. The context indicates the frames and the conditions that apply as well as what should be encouraged and chosen in order to communicate the music. The context also indicates the attitude to take in regard to musical learning and performance. The ways in which the conductors in their interaction with the singers shape the available resources and conditions for learning and performing the music are described in three designs: (a) design for figurative demonstration, including the pantomimic, performative and prototypical repertoire of action, (b) design for expressive evocation, including the associative repertoire of action and (c) design for elucidative explanation, including the conceptual and evaluative repertoire of action.

In the *design for figurative demonstration*, the function is to create an environment where the practical representations of musical expressions are central. In the case of explicit and detailed instruction on how the conductors want the music to be expressed, they illustrate this with their own singing voices and bodies how the singers should perform the music, and how they should transform the conductor's sign-making into vocal and bodily reproductions. The singers then have to *imitate* the conductor's interpretations. This method leaves the singers little opportunity to make their own interpretations or versions of the music. On the other hand, when the conductors illustrate music by means of gestures, gazes, piano playing, and other bodily movements, the singers must transform more implicitly expressed versions of sound or gestures into vocal and bodily reinterpretations. This enables the choir singers to *reshape* the semiotic modes and make their own interpretations and expressions to a certain extent. In this design the act of *imitating* and *reshaping* the choir conductors' *figurative demonstrations* is central.

With the *design for expressive evocation*, an environment is created where emotional and experiential associations function as representations of the music. In this design the conductor's sign-making produces musical representations that require the singers to *reshape* the conductor's implicit verbal and bodily associations into singing voices. Accordingly, the singers have great opportunity to include their own experiences and commitment in the reinterpretations of the conductors' evocative use of semiotic resources. Thus, this design enables the choir singers to *reshape* the conductor's *expressive evocations* and make their own interpretations of the music.

The function of the *design for elucidative explanation* is to produce an environment where the conductor's sign-making, based on conceptual information and evaluative aspects of how the music can be performed, is dominant. The conductor's explicit use of semiotic modes, above all in the form of detailed verbal explanations and evaluations of how to interpret and sing the music, has to be *translated* by the singers into their voices and body movements. Even if the singers sometimes are invited to take part in conversations where they have opportunity to exert an influence, the conductor usually has the final say in regard to musical expression. In this design the choir

singers' *translation* of the choir conductors' *elucidative explanation* of musical terminology, musical signs and evaluations is dominant.

The three designs described above show how the conductors create different ways to work with and present the music to the choir and different conditions for how choir singers can learn and perform the music. Thus, the use of these designs is not clearly and distinctly demarcated. Rather, the conductors use mixtures of different designs during rehearsals. Consequently, the different ways of learning and performing music are constantly changing and overlapping.

#### A MULTIMODAL MODEL FOR MUSICAL MEANING MAKING

The issues of how the semiotic resources are used, organised and transformed by the conductors, and how they function as representations of how the music can be learned and performed by the singers, form the basis of my multimodal model for musical meaning making. The aim of this model is to portray and provide an understanding of the complexity and multiplicity of the transformative process of musical learning and performance.

The model illustrates how the choir conductors in my observations adopt the complex usage of different interacting semiotic resources in order to mediate a musical performance, and how these resources offer choir singers varied ways to learn and perform the music. In terms of the applied theoretical perspective (Kress et al., 2001; Kress & van Leeuwen, 2001; Kress 2010), musical interpretation, performance and learning rely on how conductors translate and transform different signs in the musical scores for their own interpretative performance of using several interacting modes, such as gestures, body movements, speech, singing and piano playing. These resources, created and organised in different repertoires of actions, provide different designs of explanations, demonstrations and evocations as to how music can then be translated, reshaped and imitated by choir singers in their own singing and body movements. Depending on the conductor's choice of semiotic modes, choir singers are offered a variety of procedures to choose from in order to arrive at the desired musical result. In this process, choir singers can make their own choices regarding how they want to receive and transform the information that choir conductors mediate. From a complex and multiple palettes of ways to perform the music they can reshape the conductor's gazes, gestures, body movements, singing voice, and tones or melodies played on the piano. They can imitate a specific sound in the conductor's prototypic singing or a rhythmic bodily illustration. They can also reshape different evocations, such as metaphors or bodily and verbal associations and feelings. Finally, they can translate conceptual explanations, instructions and evaluations into their own musical expressions. An alternative way for the singers is to transform and translate the notation on the printed score directly into their own vocal representations. How they make their choices depends on the situation, their interests, and what the conductor is

offering at the moment. The finished production, in the form of the joint effort of choir conductor and choir singers, is sung to an intended audience, either to the conductor who repeats the process until everyone is satisfied with the singing, or to a concert audience that has the opportunity to listen to the choir's finished production.

In these situated choir contexts the transformative process, the musical learning, interpretations and performances of the compositions vary in a very local way, as a result of cultural framings, musical conventions, and the interest and experience of conductors and singers.

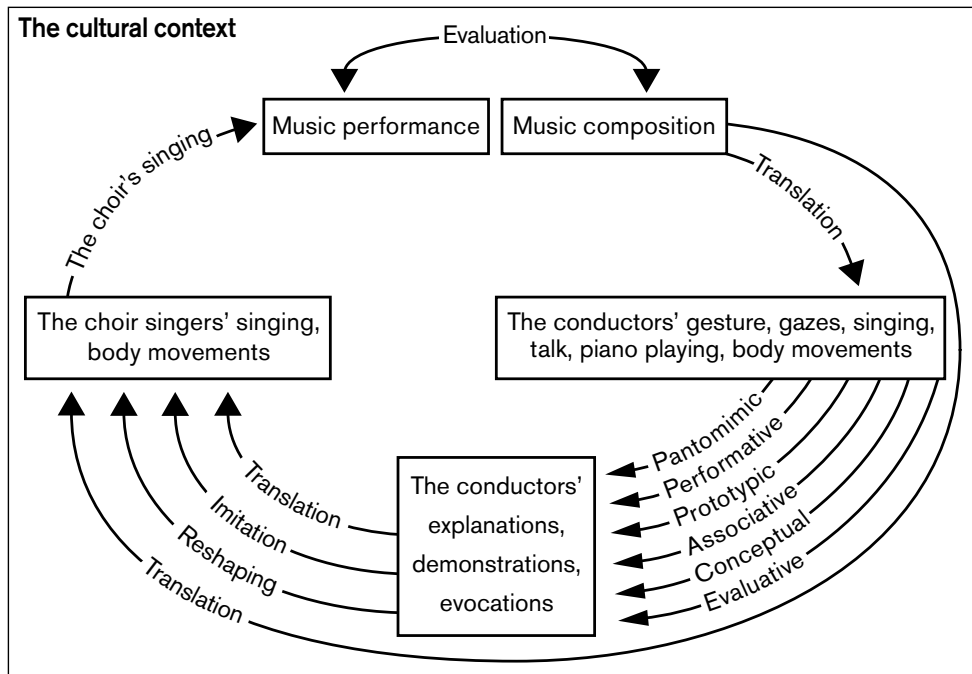


Figure 21. The transformative process of musical learning and performance.

The figure shows how conductors, in the cultural context of a choir, translate notes in a music composition or a music performance into different modes, how they organise these modes into different repertoires of action, how singers translate, imitate or reshape conductors' designs of explanation, demonstration and evocation (or translate the music score directly), how choirs perform the music, how conductors evaluate the music performance, and finally, how this process is ongoing until the conductor and choir is satisfied with the interpretation and outcome of the music.

#### LEARNING AND PERFORMANCE IN AN AUDIOVISUAL CULTURE

Together, these multiple variations of how music can be communicated and learned are related to both visual, aural, oral and other bodily resources. That is, they are related to listening and seeing as well as to speaking and doing. With the semiotic resources that choir conductors use in their repertoires of action, and on the basis of a printed score, they can provide a prototype of singing to be imitated, appeal to feelings, use gestures and bodily movements including gazes and other facial expressions to be reshaped, and verbally inform the singers about the structure of the music to be translated. Thus, the representations made by the conductors are always auditory, visual, verbal and kinaesthetic. In this context, musical notation is only a small part of the many resources that are used. Whether the singers look at or listen to the conductor, or directly interpret the musical score, the ways they learn and perform the music always involve translating, reshaping or imitating auditory as well as visual resources. According to the theory of social semiotics (Kress et al., 2001; Kress & van Leeuwen, 2001; Kress, 2010), the process of meaning-making is invariably multimodal because of the simultaneous interaction of several different resources in the making of musical meaning. Learning by reading musical score or 'reading' the conductor is therefore not opposed to the traditional concept of 'learning by ear', since a choir conductor always makes use of several interactive resources that are simultaneously combined and integrated. These learning aspects, often seen as dichotomies, should instead be considered as different aspects of the same phenomenon in the way that they may presuppose, require and even cancel each other out. Thus, an *audiovisual culture* is produced in the observed choir practices, where interactive auditory and visual resources combine to make musical meaning. Any existing polarity lies instead in the choices made by choir singers and how they make use of offered resources.

#### LEARNING AND PERFORMANCE AS EQUATED PROCESSES

In this multiple audiovisual culture, music meaning-making can be described both as a question of musical learning and as a question of musical performance, especially with regard to the view that communication and learning are considered social processes of transformative sign-making (Kress et al., 2001; Kress & van Leeuwen, 2001; Kress 2010), and from the view that musical interpretation and performance, created by conductors as well as singers, lend structure and character to the music. The question is whether, from these perspectives, there is a difference between learning to sing a piece of music and interpreting and performing a piece of music when both processes include a change based on action in the form of translating, reshaping or imitating different modes. From the way a song is sung after a transformation of this kind, it would be difficult to determine which is the learning part and which are the interpretative and performative parts of the process. According to Kress et al. (2001) and Selander (2008), if a

choir's performance is an improvement on an earlier performance, then learning is a process of reshaping and change, and learning has taken place. Change and improvement in a learning perspective also include change and improvement in a performance aspect. This is also confirmed by the conductors' frequent words of praise. Multimodal processes, where learning is equated with interpretation and performance, involve an interpretative and performative process that is on its way to becoming a final product and where the concepts learning and performance are seen as different aspects of the same phenomenon.

#### LEARNING AND PERFORMING THROUGH SITUATED MUSICAL LANGUAGES

On the basis of the multimodal process, it is clear that conductors and singers use both similar and various norms and conventions for how to speak and act. Since the conductors in the study work with almost the same components in the musical structures, they all make use of a verbal language that is composed of musical and everyday concepts and terms, a body language consisting of gazes and gestures, and a musical sounding language in the form of piano playing and singing. At the same time, the singers in all choirs translate, reshape and imitate the mediated music in similar ways. Since all actions are situated, context-bound and influenced by cultural framing (Kress et al., 2001; Kress & van Leeuwen, 2001; Kress, 2010), the choirs studied seem to adhere to conventional choir practices. This means that a *choir specific musical language* is created that is culturally constructed and culturally situated for choir singing alone. A *genre specific music language* is also created depending on the genre the choir works with (e.g. gospel, jazz or classical). When translating, reshaping and imitating the mediated music in these situated learning contexts, singers have to understand the specific language and resources they are offered in relation to genres and traditions. Different ideals arise concerning vocal timbre, vocal expression, how to use one's body in relation to the music, and how it is possible to talk about music when working with a specific genre. At the same time, the choirs have local norms for how semiotic resources can be used, organised and understood, and translated, reshaped and imitated, depending on the choirs' interests, the chosen music and the individual conductor's approach. In this way, the choirs use a *musical language that is locally constructed* by each conductor and choir collectively.

#### CONCLUDING REMARKS

An important starting point for further discussion is the different implications for learning and performing that result from the great variation in a choir conductor's way of communicating as well as the variety of options choir singers can choose from when learning to sing a piece of music. Learning, interpreting and performing imply designs of different environments where choir conductors illustrate different musical aspects on the basis of

different points of view. In this process of multimodal meaning-making conducting can be regarded as a *productive musical leadership*. For choir conductors this means, in The New London Group's (2000) definition, that they can be regarded as *designers of multimodal environments*, shaping musical performances and offering alternatives to choose from, as opposed to being authoritarian leaders, selecting pre-determined methods. Certainly, the conductors steer the choir in a direction that enables it to achieve a desired result, but they also employ the choir singer's to choose how to learn and experience the music.

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