

Composition and Musical Gesture: The musical persona as the basis for a new composition

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Abstract

The present article aims to investigate how musical gestures influence the compositional process. The term musical gesture is widely used in the musical field, although its meaning varies across different contexts. A first step towards this investigation is to raise a debate about the terms gesture and musical gesture, using the philosophy of Vilém Flusser, the musicological discourse of Robert Hatten, and the cognitive-based mimetic theories of Arnie Cox. The second step then is to motivate an application of these ideas in the act of composition. This research has been developed along with a musical piece I have written. As a first partial result of this interchange, the last subsection of this article shows a small draft of how such work in progress has been fundamentally structured in the principles of musical gesture here described.

Keywords: musical gesture, musical persona, mimetics, composition

Composição e gesto musical: A persona musical como base para uma nova composição

Resumo

O presente artigo busca investigar como os gestos musicais influenciam o processo composicional. O termo gesto musical é amplamente usado no campo de estudo da música, embora seu sentido varie através dos diferentes contextos. Um primeiro passo rumo a essa investigação é levantar o debate sobre os termos gesto e gesto musical, usando a filosofia de Vilém Flusser, o discurso musicológico de Robert Hatten e a teoria mimética com base cognitiva de Arnie Cox. O segundo passo então é motivar a aplicação destas ideias ao ato da composição. Esta pesquisa tem sido desenvolvida em conjunto com uma obra musical que eu tenho escrito. Como um primeiro resultado parcial desta interação, a última subseção deste artigo mostra um pequeno esboço de como esta peça a qual estou compondo está fundamentalmente estruturada nos princípios do gesto musical aqui descritos.

Palavras-chave: gesto musical, persona musical, mimética, composição

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1 Introduction

This article is about composition. The cognitive field and its several branches have much to contribute to the development of the compositional abilities, both as an art and as a field of study. When people talk about music, they usually use metaphors to describe their musical experience. It is not rare that people, when talking about their experiences with a musical piece, report it as if music was a kind of living being, with its independent gestures. Here is the point: *gestures*. The discourse about music is full of expressions that use or are related to the term *gesture*. One says that a melody has a *leap*, or that the pianist performs an *attacca subito*. The interest here is, therefore, to understand what is the so-called phenomenon of *musical gesture*.

Two main sections structure the present paper, besides introduction and final considerations. The term *gesture* has been used with a wide range of meaning, although most of them are connected with the ideas of *action* and *intention*. The next section (section 2) starts with a reflection on such term, comparing its understanding among the fields of philosophy, musicology and music cognition. The purpose is to achieve a suitable concept of the term *musical gesture*.

In the third section, this work proposes an extension of such principles checking how it could be useful for the compositional field. The compositional practice is barely mentioned in the bibliography about gesture. Usually such researches mention the composer, as the producer of the works used to exemplify their theories, but few reflections are made on the compositional field per se. Thus, the intention in this third section is to offer some paths to the compositional thinking. At the end of such section, a brief outline of a composition I have written for this purpose is made. It aims to illustrate a possible example of expanding the compositional language. Just a small test of the principles is presented here for discussion.

2 Musical Gestures

As a meaningful musical element, the concept of gesture has been broadly discussed in recent studies about musical meaning. However, the understanding of this concept is extremely diffuse. To advance in the ideas here suggested, it is fundamental first to establish a satisfactory concept of *gesture* and, afterwards, a concept of *musical gesture*.

2.1 Conceptualizing Gesture

The Czech naturalized Brazilian philosopher, Vilém Flusser (2014), discusses the concept of gesture in a collection of essays organized by

him in 1991. He brings some insights that will be shown here. For him, “gestures are movements of the body that express an intention” (p. 1). Such idea seems in direct agreement with the extremely broad concept advocated by the musicologists Marc Leman and Rolf Godøy (2010). They say that gesture “is a movement of part of the body (...) to express an idea or meaning” (p. 5). These two concepts have in common the basic idea of the movement followed by an expressive character, one defined by intention, and the other determined by ideas or meanings. One can have the intention to express ideas or meanings, but the expressive world is not restricted to these issues. Of course, ideas and meanings are extremely broad concepts and, using them in the conceptualization of gesture, it is possible to express almost everything.

Another idea, however, emerges from this discussion. When Flusser says that gestures express an intention, he brings to the understanding the idea of will, or volition. Paraphrasing his example, when someone decides to raise its arm, no one can tell an entirely satisfactory reason to justify such movement, even if having acceptable explanations. No one can convince such person that its motive was other than its own will (Flusser, 2014, pp. 1–2). In such way, he declares: “a gesture is a movement of the body or of a tool connected to the body for which there is no satisfactory causal explanation” (Flusser, 2014, p. 2). It is important to highlight here the idea that is the body or part of it that expresses an intention, through a movement. It is not an exclusive function of the mind, the consciousness or the brain. The volition, here, is the embodied will.

Albrecht Schneider (2010), a German musicologist, approaches in his writings some particular characteristics of the gestures. For him there are “at least two different aspects or components with respect to motion, one being connected with actions of the body, the other with motional patterns of expression in a more metaphorical way” (p. 71). The first, one can say, is the gesture as a movement. The second is the gesture as an expression. Specifically related to this second aspect is the space and time projection of the movements, which can be responsible for the intensive character of the meaning, generated by such gestures. Also important is to observe that he approaches the expressions as a metaphorical process. Leman and Godøy (2010) corroborate such idea. They say that there are two different focuses on their definition of gesture, the first, on *extension*, is the human body per se and its spatial movement, the second, on *intention*, is the expressive and meaningful part of the gesture (p. 5). About the meaning level of the gesture, Flusser explains using an example:

I can also raise my arm up in a specified way when someone punches me. This action also permits the observer to say the movement of my arm “expresses” or “articulates” the pain I have felt. (...) A sort of wedge enters into the link, a codification that lends the movement a specific structure, so that it registers as an appropriate way to express the “meaning” – pain – to someone who knows the code. My movement depicts pain. The movement is a symbol, and pain is its meaning. (Flusser, 2014, p. 4)

Flusser is concerned to create the basis for an analysis of gestures, as meaningful acts. He wants to interpret gestures as the link between the meanings that someone intends to share with the others. In other words, gesture is, according to him, communication. Thereby, such model implies that the interpretation of the gesture is necessarily based on a code shared between two or more people. According to this model, if the code is not shared among a population, no one will perceive the gesture as a gesture, but just the gesture as a simple movement or action. Nevertheless, even when someone moves without any intention or without making gestures, such movements can be expressive of some meaning for another person. This person can interpret any movement as meaningful and, by definition, as a gesture. Such movement can hold some structure that can be expressive of ideas or meanings for this other person. Peter Kivy (1981), philosopher, describes the distinction between the terms “to express” something and “being expressive of” something. He uses as an example the face of the Saint Bernard dog, which is usually expressive of sadness to human beings, by means of its physiological constitution. However, the dog probably is not sad, in other words, the dog does not express sadness (p. 12). It does mean that gestures are body actions that express or are expressive of an intention.

The concept of gesture developed and adopted by the musicologist Robert Hatten (2006) completes the idea here advocated. He says human gestures are “any energetic shaping through time that may be interpreted as significant” (p. 1). For him, significant means affect, modality or any meaning that such gesture has for its interpreter. His idea is compatible with the concept previously articulated, that gestures exist to express or to be expressive of something. Nonetheless, it is not explicitly stated. What this other concept brings to the present research is the substitution of the term movement by the term “energetic shaping”. At first it is possible to think that he is talking about a disembodied gesture because if the gesture is any energetic shape, it could not be a bodily gesture. However, such shape starts

with the energy produced by a body to create any expression, or with the energy produced by a body to perceive expressiveness.

The gesture is, therefore, any energy flow that expresses or is expressive of an intention. Such definition is the basis of the present research. Different classifications of gestures are understood as extension or subdivision of the idea here proposed, as *musical gestures*, the *gesture of listening to music* and the *gesture of speaking*.

2.2 Phenomena of Musical Gesture

As defined by the music theorist Arnie Cox (2006), “musical gestures are musical acts, and our perception and understanding of gestures involves understanding the physicality involved in their production” (p. 45). Such musical acts, expressed in this definition, contain the energy flow or are the “energy shaping” aforementioned. Thus, to consider that music can produce or reproduce any gesture, it is necessary to consider that its virtual materiality, the sound, constitutes a virtual body. It does not mean that the composer or the performer imagine necessarily such body interacting with its listeners. However, the ability to perceive gestures being expressive of intentions, as stated before, allows the listeners to perceive the corporeal character of music.

In another approach, musical gestures are “human body movement that goes along with sounding music” (Jensenius, Wanderley, Godøy, & Leman, 2010, p. 13). This concept brings to the debate the necessity of the body movement, both in the production and in the perception. With this concept, Jensenius et al. categorize the gestures in two different types: those produced by musicians, while playing, and those produced by listeners, while hearing. Such categorization seems to evidence that when people talk about musical gestures, they can be talking about different kinds of phenomena. For the purposes of this research, the terminologies *gestures of performing music* and *gestures of listening to music* will be used to describe different phenomena of musical gestures.

The *gestures of performing music* are those body gestures necessary or desired to play a piece. From the mechanical movements destined to produce a note, as the fingering in the keyboard, to the movement of a guitarist shaking its head, demonstrating empathy with the context. They are all *gestures of performing music*. Such gestures have a visual appeal during the performance. Even when listening to a recording, people tend to imagine some of these movements, especially when the listener is familiarized with the live performance of such style.

The *gestures of listening to music*, as Flusser says, are gestures “in which the body adapts itself to the message” (Flusser, 2014, p. 115). It means that, “in listening to music, the body becomes music, and the music becomes a body” (Flusser, 2014, p. 114). Advancing in his reflections, he says, “listening to music is a posture, that is, an inner tension that relaxes, which is to say opposes itself, when it is expressed as movement” (Flusser, 2014, pp. 113–114). He complements with the observation that “we do occasionally see listeners’ feet tapping in rhythm or lips seeming to whistle, but these, like the movement of the lips in reading, represent a naïve discharge of an essentially internal tension” (Flusser, 2014, p. 113). This way, Flusser prefers to say that the movements people do when listening to music are the relaxation of the inner tension, which arises from the musical experience. While hearing music, people movements determine their position, or their state, essential to such experience. However, what determines the referred internal tension that is essential to the experience of music? Alternatively, as Arnie Cox once asked, “how music engages us” (Cox, 2006, p. 45)?

2.3 Mimetic Theory

In order to try to answer the last question, Cox developed a theory of mimetic understanding of music. He suggests:

Part of how we understand music involves imaging making the heard sound for ourselves, and this imagined participation involves covertly and overtly imitating the sounds heard and imitating the physical actions that produce these sounds. (Cox, 2006, p. 46)

In other words, the basis for his hypothesis is that, when listening to music, people usually understand its meaning not just by comparison with previous experiences with sounds, but also through the imaginative reproduction in mind of the gestures that produce those sounds (Cox, 1999, pp. 61–62). Thus, “we understand what it must be like to be them because we are being like them” (Cox, 2006, p. 48). Cox declares that there is scientific evidence for the mimetic hypothesis in different kinds of studies, as in face-to-face communication, in mirror neurons, and in subvocalization for speech and music. (Cox, 2006, pp. 47–48). In order to review some of his ideas, a part of the studies that provide evidence will be shown.

For face-to-face communication, Cox (2001) uses the research published by Eckhard Hess (1975). Such study was made with male subjects, who had to see photographs of women faces. A pair of identical photos was shown, just artificially changing the size of the pupils. They had to say which of the photos shown a more sympa-

thetic face. Usually, they chose the faces with larger pupils. However, what is interesting is that the pupils of the people who were in the experiment dilated when looking the photo with the faces with enlarged pupils. "The subject's imitation of the woman's pupil dilatation in the photo is integral to their experience; they unconsciously became like the woman in the photo" (Cox, 2001, p. 199).

Cox suggests that some of the best and most suggestive pieces of evidence for the mimetic hypothesis are in the field of motor imagery studies involving mirror neurons. Using PET and fMRI scans, some studies suggest that people unconsciously activate the neuronal mechanisms to imitate the actions that they are witnessing. He cites the work of Gallese and Goldman (1998) to base his theory. Such work was conducted with monkeys and consisted of mapping the brain regions of those monkeys when they performed a simple gesture of grasping something. Notwithstanding, the same brain activity was detected in those monkeys when they just saw a person to realize the same gesture they realized before. In other words, when they saw the gestures they are able to produce, their brain immediately assumed the same state, as they were the producers of these gestures. As suggested by Rizzolatti and Sinigaglia (2007) in a more recent bibliographical review, there is strong evidence that the phenomenon of mirror neurons also happens in humans (p. 206). They observe, however, that "monkey mirror neurons do not respond to other types of visual stimuli: in fact, they do not become active at the sight of a hand mimicking an action or when meaningless intransitive movements are observed" (p. 205). It strongly suggests that the mimetic phenomenon occurs just when meaningful actions, the gestures, are performed. When meaningless movements are performed, the mirror neurons are not activated.

Subvocalization, or silent vocalization, is the internal speech that is made when reading a text, which allows the reader to create a sound image of the text in its mind. Usually the muscles responsible to produce the speech perform the correspondent movements during subvocalization, however in most cases such movements are not possible to be detected without the use of specific precision devices. Cox suggests that subvocalization is a specific kind of mimicking that starts during the infancy, while children try to imitate their parents, which continues in a more covert form during the whole life (Cox, 2001, p. 200). He approaches the idea that subvocalizations are also produced while listening to another person speaking and also that such phenomenon is extensive to the human song (Cox, 2001, p. 200)¹.

¹ See Gathercole and Baddeley (1993), Baddeley and Logie (1992), and Vaneechoutte and Skoyles (1998).

Cox complements such evidence with the idea that, even in the context of instrumental melodies, people usually subvocalize or produces motor responses to music (Cox, 2006, p. 49). Although such idea still does not provide so strong evidence, his arguments are plausible before the other pieces of evidence shown until now. Summarizing his view, one could say that during the musical experience, motor responses (vocal or not) occur, even overtly or covertly, consciously or unconsciously. If his idea is correct, it means that, when listening to music, people usually project the gestures perceived as body gestures, through subvocalization and fingering.

This last argument implies the idea that the mimesis of gestures can happen through different modalities. In Cox words, “gesture has a meaning that transcends its modes of production” (Cox, 2006, p. 51). He also argues that “the ability to represent one modality in another is possibly (or perhaps likely) dependent upon an *amodal* representation if the exertion dynamic that would produce a sound or a sound pattern in one domain or another” (Cox, 2006, p. 50). Such amodal representation is, by definition, something that does not belong to any isolated part of the body in general. It belongs to the whole body as an integrated construct. It is a part of a metaphorical process of conceptualization². In the present work, the existence of such amodal representation will be interpreted as a kind of simultaneous partitioned representation in several distinct parts of the body, or guided by the experience with these different parts, being reconstructed afterwards in a single modality, the same or not of the original. Below follows a figure that represents such idea:

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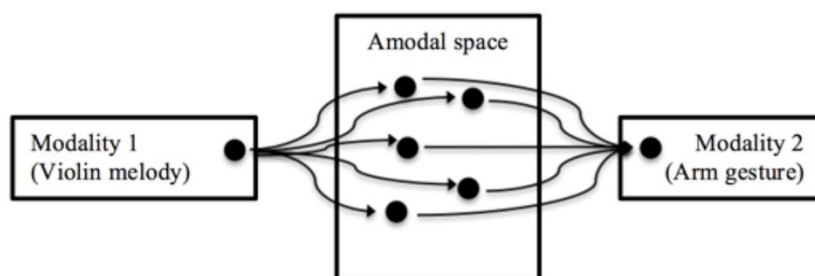


Figure 1. Dynamics of inter-modality of the gesture representation.

Figure 1 represents a situation where a listener hears a melody played by a violin. In such representation, the modality 1 describes the gestures made by the violinist while playing such melody, not just its body gestures, but also and mainly its musical gestures. Those gestures can or cannot be perceived by the listener. However, they can always be imagined. During such musical experience, the listener will identify some of the gestures through the history that this person has

² See George Lakoff and Mark Johnson (1980).

with this musical style. For example, if the melody carries intervals of ascendant octaves followed by neighbor descendant movement, it can be metaphorically interpreted as a jump, followed by single steps. The contrast between the two first sounds was bigger than the others in the sequence. The experience of jumping and giving steps are bodily experiences, usually associated with the movement people can make with their legs. At the same time, however, many other gestures are done in the music, and the listener consciously or unconsciously interprets them through its bodily experiences. This way, the first gesture, understood as the interaction between performer and violin, now is partitioned in many different metaphorical associations with the bodily experience of the listener. The most important thing here, however, is that a new gesture arises in the listener, consciously or not, after the interpretation through metaphorical processes. In the example, such gesture is realized by the arm, probably accompanying the intensive character of the meaning expressed by the original gesture. This process gives some “translation” to gestures between different modalities.

2.4 Musical Persona

One last and important idea developed by Cox will be very useful in the present research. He uses some concepts previously developed by Robert Hatten (2001), declaring that there is an external agency called “the music.” It is the result of the projection of the gestures in the external source. As the experience with music is usually external, people intend to project their gestures in the musical source. Nevertheless, it cannot be identified with such source. This process generates what he calls *musical persona* (Cox, 2006, p. 53). The *Figure 2* represents such relation.

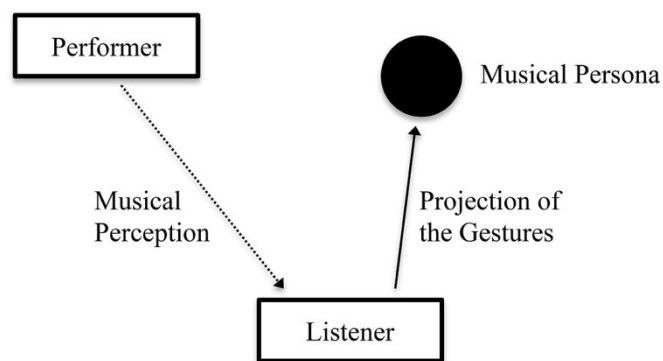


Figure 2. The formation of the musical persona.

2.5 Musical Gesture

The gesture of listening to music is, therefore, the gesture of projecting the musical persona. By its turn, the musical persona has its

gestures, which will be mentioned here as *virtual musical gestures* (see figure 3). The *virtual musical gesture*, the *gesture of performing music* and the *gesture of listening to music* compound what is called *musical gestures*. They all have a different phenomenological base, although they are interdependent. The mimetic phenomenon is responsible for the most of such gestures. See *Figure 3*.

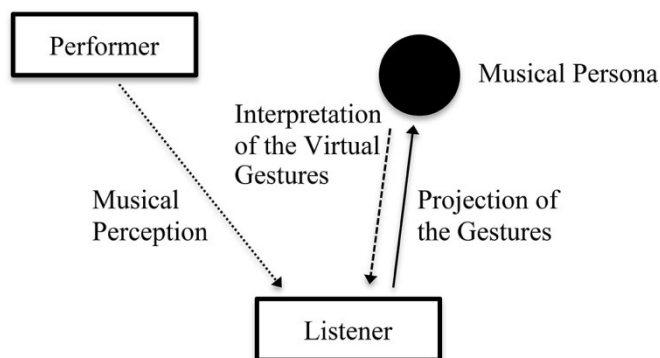


Figure 3. Virtual gestures interpretation.

As the mimetic process seems to occur in an embodied automatic way, the “inner tension”, referred previously by Flusser, seems to be the retention of the exterior expression of the mimetic gestures. When someone listens to music, it probably subvocalizes the melody or reacts through another motor response. When the body assumes the constraints of such mimicking, there is an “inner tension” caused by the restrictions imposed, usually, by the conscious awareness. When such constraints are removed, the inner tension is released, and the mimicking becomes apparent. Thus, the person can express, with the whole body, its gestures, projected in a very defined *musical persona*.

3 Composition and Gestures

The composer is a figure almost absent in the theories and discourses about musical gesture. Obviously, composers are also performers and listeners of their music, and what is valid to performers and listeners, in general, are valid for these functions in the figure of a composer. However, the role of the composer goes beyond its role as a performer or a listener. Then, in which extension are the gestures essential to the music composition? First, the present article claims that, for all roles—composer, performer, and listener—there is an individual process of projection to and reinterpretation of musical persona. The *Figure 4* shows a possible schema.

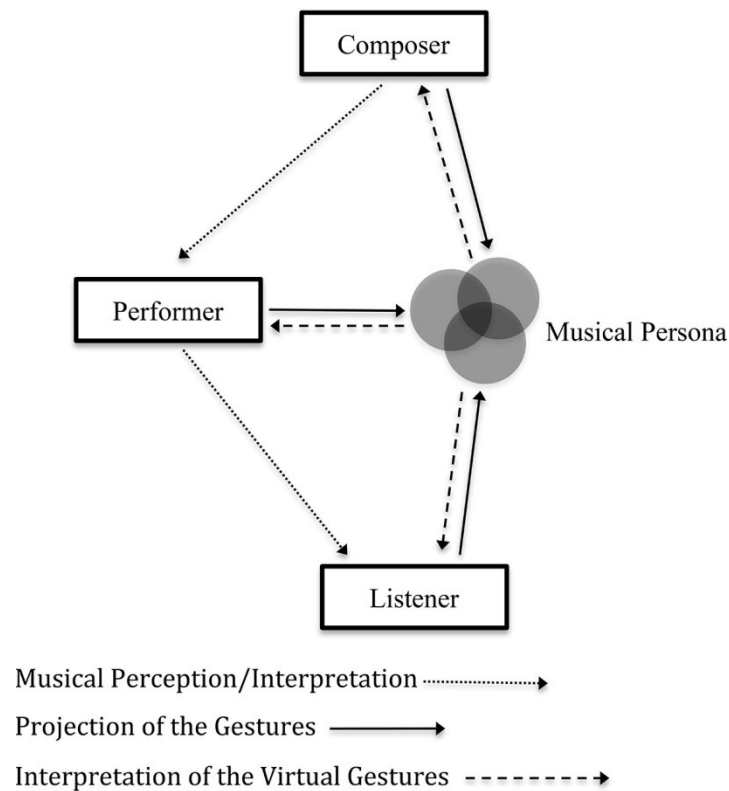


Figure 4. The three musical personas.

The three different and partially overlapping musical personas are the representation of the possibilities of projection of the gestures by the composer, the performer, and the listener. This partial overlapping shows the possibility that they share some commonly projected gestures, but also shows that a big part of it is individual. Obviously it is the representation of only one possible arrangement.

All the three different kinds of *musical gestures* have an active relationship with the compositional process. The *gesture of performing music* influences the composer while he is performing its music, or imagining its interpretation. Some decisions have to be done in order to fulfill certain requirements of the gestures of performance. For example, if the composer is writing for piano and chooses to use a small sequence of two neighbor slurred notes as its motive, the second in staccato, it proposes a particular *gesture of performing music*. Imagine, yet, that the composer chooses to repeat such motive, or figure, in an ascending pattern. Depending on the context, such motive can be played with the fingers 2 and 3. It will generate an oscillatory movement in the wrist of the pianist, because it has to link the two first notes, detach the second from the third, and so on. If, after a definite number of repetitions of such pattern, the composer chooses to create a big leap in the movement of the arm, it can interfere in the way such gesture will be produced and such music will be played.

See *Figure 5* and *Figure 6* for two variations of this example. Imagine that the whole excerpt must be played just with the right hand.



Figure 5. Effects of performance in compositional decisions. First variation.



Figure 6. Effects of performance in compositional decisions. Second variation.

The difference between the leap in the *Figure 5* and the huge jump in the *Figure 6* imply possible alterations in other musical properties. Probably there will be a bigger interruption in the continuity of the pulse in the second example, especially if it is played in a fast tempo. If the pianist tries to reduce such irregularity in the pulse, probably it will choose to accentuate the G in the second measure of the *Figure 6*. In both cases, such actions provoke the establishment of the first note in the second measure as a structural tone. Depending how much the composer wants to emphasize such note, he can choose between those two solutions, figures 5 and 6. The composer's choice is, indeed, conditioned by the *gestures of performing music*.

The *gesture of listening to music* is another essential component of the music composition. While playing or imagining the performance of the piece, the composer experiences some mimetic gestures. Such gestures probably contribute to the composer's sense of balancing, since they denounce the intensity of the expressed elements in the music. As music is not a coded language, it is not possible to preview the kinds of meaning people will experience while listening to such music. However, the intensive character of the musical gestures can help the composer to keep the correct amount of effort in each moment of the piece. As aforesaid, musical gestures are "energetic shapes" (Hatten, 2006), and the way such energy is expressed is one of the responsibilities of the composer. To illustrate it, the figures 7a and 7b show a short excerpt from the Schubert's Piano Sonata in A minor, D. 784. The same piece has been utilized as an example by Robert Hatten (2006).



Figure 7a. Schubert, Piano Sonata in A minor, D. 784, I, measures 1 to 4.



Figure 7b. Schubert, Piano Sonata in A minor, D. 784, I, measures 26 to 29.

The same motivic idea is exposed in both excerpts, however with different treatments. The gesture considered here is what can be called as *filling the gap*. The original motive starts with an ascendant interval of perfect 5th. The leap forms a kind of sound gap that is filled with the sequence D \sharp – (E) – C – B – A. After this gesture, in the *Figure 7a*, follows the arpeggiation of the A minor chord in the top voice, A – E – C – A. Thus, the motive at the beginning of the piece has basically three gestures, the *leap gesture*, the *filling the gap gesture*, and the *transferring octave through arpeggiation gesture*. In its second appearance, in *Figure 7b*, the motive suffers some transformation, which will emphasize a particular gesture, the *filling the gap*. The same sequence of *filling the gap* is stated, D \sharp – C – B – A, however, such gesture continues through the rest of the motive with the sequence, G – F – E – (F – E) – D – C \sharp – (D – E – F – G \sharp – A) – B – A, *filling the other gaps*. The intentional character of such gesture is confirmed with its valorization in the second case. The understanding of such gesture by the composer helps him to decide how the “energy” of the gestures will perform its shapes throughout the piece. It is not possible to say that Schubert was aware of such gesture, but he certainly experienced it in some way, and it had an important role in the compositional process of such sonata.

The virtual musical gesture also has an important role in the compositional process. Nonetheless, that gesture is essentially conscious, because it exists in a reflexive exercise about the projections of gestures people make, while experiencing music, in the musical persona, or “the music”. Indeed, such gesture encompasses conscious interpretations of the projections from the two previous kinds: *of performing music* and *of listening to music*. The figure 8 shows an example of the use of such *virtual musical gesture* to a composition.

The example is an excerpt from the piece *temA*, by Helmut Lachenmann.

Figure 8. Helmut Lachenmann, *temA*, measures 1 – 3.

In such piece, Lachenmann suggests through its title the kind of material he is using in his work. According to Alvaro Oviedo (2013), the name of the piece is an anagram to the German word *atem*, which means breath. The title is not just a mere suggestion to the listener; it is indeed an overt declaration of the material used. The *gesture of breathing* is the main element of such piece. In the words of Oviedo:

Indeed, the work thematizes the physical and sonorous gesture of inspiration and expiration, considered as a figure that potentially contains multiple developments. The different modalities of breath pass from voice to flute, from flute to cello, from cello to voice.³ (Oviedo, 2013, pp. 169–170)

The conscious use of the *gesture of breathing* indicates that some of the musical gestures projected by the composer, while listening or imagining the work in progress, were intended to be expressions of breathing. The *gesture of breathing*, thus, becomes the *virtual musical gesture*.

Another example approaches a different aspect of the use of the *virtual musical gesture* during the compositional process. The Figure 9 shows an excerpt from the piece *Eight Duos for violin and cimbalom*, op. 4, first movement, by György Kurtág. The musicologist Márta Grabócz (2013), in her analysis of this work, indicates that this piece has a twelve-tone structure, in which the composer presents eleven pitch classes in the two first measures, or breaths, and repeat nine of them in the third measure. The twelfth note, A natural, appears just

³ Free translation from the original in French: “En effet, l’œuvre thématise le geste physique et sonore de l’inspiration et de l’expiration, considéré comme une figure qui contient en puissance de multiples développements. Les différentes modalités du souffle passent de la voix à la flûte, de la flûte au violoncelle, du violoncelle à la voix”.

in the fourth measure. It is a compositional strategy based on the *virtual musical gesture* of *avoiding a sound*. It is a more complex gesture, because it assumes that the listener have to be conscious of the set of pitch classes allowed in a part of the piece, perceptually, to understand the lack of one distinct sound. However, what is being proposed here is a reflection about the virtualization of the gestures by the composer, that person that are usually the best specialist of the piece—or at least a person who have a deep experience with the structure of the work. It is plausible that Kurtág knew that the A natural would complete the twelve-tone series, or set, in such excerpt. Notwithstanding, he dodges the obligation imposed by the serial music to complete the sequence with the A natural, reserving it for a more special moment, a cadence in the fourth measure.

Figure 9. Kurtág, Eight Pieces for Piano and Cimbalom, op.4, I, measures 1 – 5.

The study of *musical gestures* should be an important part of the study in composition since gestures seem to influence directly compositional strategies and the sense of balancing in the music, as demonstrated in the previous examples. A composition that thinks in manipulating the actual and virtual gestures since the beginning could, however, propose new strategies in its expressive dimension. The next subsection will outline a possible example of how extrapolate some traditional paradigms between gesture and composition.

3.1 Virtual “Alien” Body: A Proposal for “Alien” Gestures

Here the proposition starts with the idea that the first thing the composer will create, in order to produce a musical work, will be a virtual body. This virtual body is the conscious construction of the musical persona, or of its structure. Instead of starting to think about materials, notes, sets, motives, rhythms, and any other traditional musical parameters, let the compositional process start thinking in an

organism. In this case, it means to think in virtualized gestures. Such gestures are symbolic. The composer can create strategies to articulate them, creating a vocabulary of gestures and maybe a language with them. It does not mean that this process can, in any way, produce a language that can be coded and shared among people. It is not a matter of composition. However, this language, which just works satisfactorily between the composer and its creature, will enable a way to articulate the musical ideas.

The proposition here is to start thinking that such virtual body is, for example, an alien body⁴. Then, start to think about the kinds of gestures this body can produce. I have been applied these ideas in a work where I use, as primary gestures, *the speaking*, *the breathing*, and *the walking*. It is important to say that this piece intends to explore both, traditional and extended techniques. The instrumentation is idealized for clarinet, bassoon, trumpet, trombone, percussion, violin and contrabass. For the purposes of the present draft, the article will explore just the *gesture of speaking*.

The speech of the virtualized body is molded in the English language. The articulation of such speech is made by a set of rules that associate each specific phoneme to a set of sounds that have some relation with them. The idea is not to sound such as a set of recognizable English words; it is just to create a speech-like or sing-like contour that contains some sounds, which are related to the English language sounds. To activate this idea, it is necessary to think in this language not as the English language, but as a language of the same family, developed for this alien body. Below follow the figures 10a and 10b that shows how the phonetic structure of the human body is mapped into this alien structure. The structures of the vocal tract are mapped to musical instruments.

The purpose of the creation of such complex structure is to explore, consciously, some forms that just happen in the speech, to project them in another musical persona. The virtual body, as an entity, also develops its musical persona. Nonetheless, what is the difference in creating a work thinking in such structure comparing with a musical piece that just use the mapping structure between phonemes and musical instrumental sounds here proposed? The difference is that, with this method, the *gestures of performing music* and the *gestures of listening to music* of the composer can be driven by the conscious idea of the alien body. When the composer projects its gestures outward, they are driven towards this virtual body. It acts as a gestural organizer.

⁴ Such example is based in a work in progress.

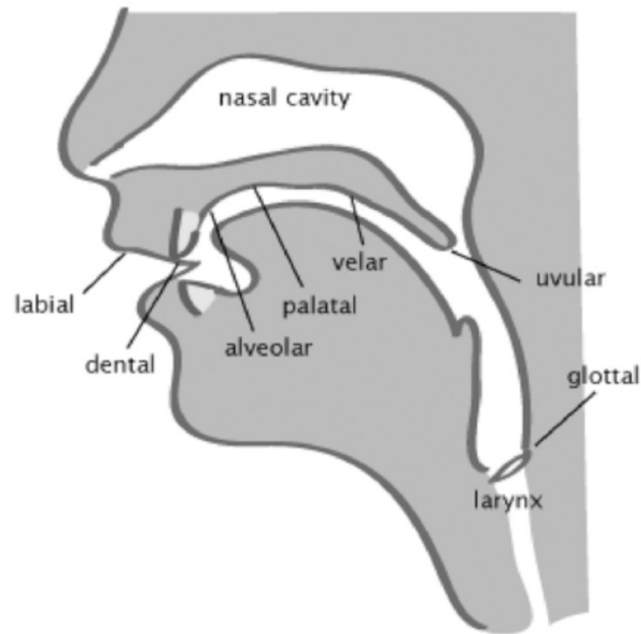


Figure 10a. Human vocal tract (Rosenfelder, 2012).

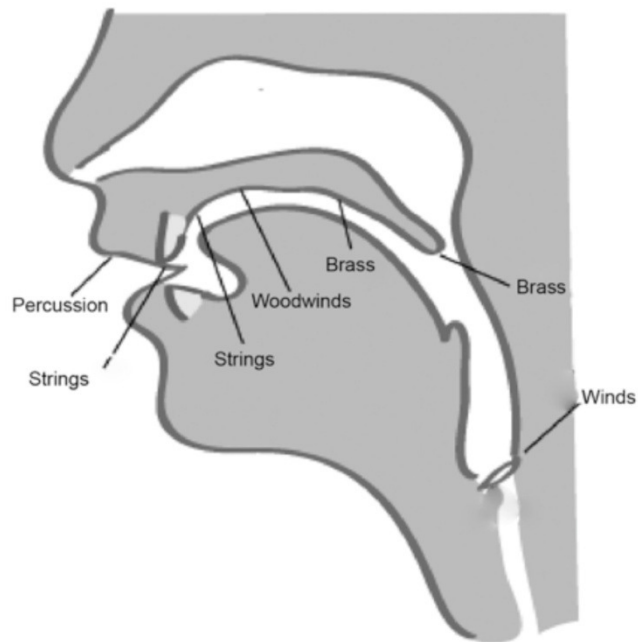


Figure 10b. "Alien" vocal tract.

Although the performers and the listeners do not have the means to understand such alien body during their musical experience, they will create their virtual bodies, their musical persona. The purpose of the composer can be to keep it not perceivable to listeners, but if it wants, it can choose to write a program to suggests for listeners and performers a more active gestural identification.

4 Final considerations

Although the term musical gesture is extremely used in the musical world, its meaning is far from being a consensus among performers, musicologists, and composers. The last two decades have produced academic works interested in developing studies in the musicology of gesture, and in the study of the gesture per se, as shown in the bibliographical review in the first part of this article. The cognitive approach of some of these studies has developed an essential role, providing evidence and new thoughts that dialog with the musicology and the music philosophy. The dialogue between the philosophy of Flusser and the musicology of Hatten led this work to formulate the already shown concept of gesture as *any energy flow that expresses or is expressive of an intention*. Based on this concept, the musical gesture was understood as a threefold phenomenon, which encompasses the *gesture of performing music*, the *gesture of listening to music*, and the *virtual musical gesture*. The mimetic theory developed by Cox has an important role in this work. It is fundamental to the understanding of the process of gesture and musical gesture in the present research.

The second part of this article worked with the extension of theories of gesture to the world of the composer. As previously stated, the compositional act is barely cited in these studies. The relation between gestures and composition are far from being explored in the literature. This article proposed a germinal approach to this issue and raised some ideas that can be interesting to the compositional craft. Balancing and compositional decisions are topics frequently approached in the compositional literature. The idea of this article was to raise some possibilities to approach these themes, based on some cognitive principles. Through some small examples, it was possible to demonstrate some applicability. The last subsection outlined a compositional idea that I have been developing as a practical application of this research. The intention here is just to motivate composers, musicologists, and other musicians and researchers to think new approaches to the field of musical composition, based on the gestural world.

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