

# Applications of formal analysis: Musical comprehension and memory consolidation in performance

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This paper reflects principally on the perception of musical form and its dependence on the temporality in front of the conceptual system, related to the nominalizations and numerical groupings of the theoretical representation of the structure. Through the assumption of practice as the only way to experience music, this paper calls for sensations and emotional intelligence with regard to musical appreciation, including form as one of the most important elements of musical comprehension. The capacity of the performers for evoking musical form, through its knowledge synchronically to its temporal experience, is defended as a potential tool for consolidating memory due to the security it provides in performance.

*Keywords:* formal analysis; memory; musical comprehension; time; performance

Independent of the consideration of music as a language and consequently a communication system (Maconie 1990), or as an abstract expression of “something” not related to the will of meaning, a structure exists that defines it in length and articulates the presentation of its sonorous content. Considering music as a language or a discourse the form refers to its syntax (Vega-Rodríguez and Villar-Taboada 2001) and, taking into account the exclusiveness of its abstract expression, avoiding a semantic quality, and noticing its ineffable condition (Jankélévitch 1983), the form constitutes the design of those presented. In both cases, the complex organizational analysis of the developed elements in a composition fosters the comprehension, apprehension, and assessment of its contents by the performer. The knowledge of the form of a piece, through its analysis, allows the performer to connect the synchronic relationship of execution and aural capacity with the prevision or, as

Huron (2006) explains, with a *sweet anticipation* that makes possible the evocation/recovery (the last period of memory capacity after appropriation and storage) of that which is to be played. It is absolutely feasible to play, even by heart, ignoring the formal dimension of a piece, although it is not possible to “perform” (Stravinsky 1942) a musical work without a solid assumption of its form. Tovey reminds us that “players should understand what they play” (Lester 1995), and formal analysis is a relevant tool for connecting the multiple musical elements (values, frequencies, rhythm, melody, nuances, tempo, agogic, harmony, motives, cadences, etc.) for this purpose.

Performing from memory can trigger fears or insecurity about final results in live performances. But at the same time, playing by heart awakens in players a sensation of freedom with regard to the musical appropriation which provides a very convenient state of introspection and individuality (Delannoy 2008) with the support of the “emotional intelligence” (Goleman 1995). While in theory the formal analysis rests on the *number* (number of sections, phrases, motives, measures, notes, etc.), the execution embraces *time* as the perception of form. Music is a temporal artistic representation, and this is the crucial point through which a performer may transcend what he or she appreciates at a cognitive level to the experience of practice (Elliot 1995). Rousseau (1760) explained that “only through our own movement we acquire the idea of extension” (p. 82). In a parallel way, it is possible to affirm that only through the *experience of time* can we acquire the final idea of musical form. Intellect and perception (Renaud 1999) plus imagination are the keys for consolidating musical memory (Snyder 2000, Barbacci 1987) in order to attempt a “rhetoric expression” of structure.

### MAIN CONTRIBUTION

To know the limits of the musical form does not mean to understand it. The border that divides the knowledge and the comprehension of the musical structure can be as wide or as narrow as the capacity of the performer for letting himself or herself be attracted by the temporal experience. For a theoretical analysis of the structure of a piece it is indispensable to develop “logical-mathematical” and “spatial” intelligences (Gardner 1993). Logical-mathematical intelligence is required for synthesizing, through the *number*, a piece’s parts and limits, while spatial intelligence is required as a visual help for speeding up the logical-mathematical intelligence in the preliminary stage of a piece’s progress. Perhaps both intelligences were considered by Gardner as constituent parts of another of his defined intelligences: the “musical intelligence.” However, for transcending the results of the theoretical recognition

of the form to the practical perception, it is necessary to turn to the “emotional intelligence” bonded to the physical sensations. Goleman (1995, p. 15) insists on the *experience* as the “basic vital attitude” in front of the “concept” in a proper free flowing “emotional intelligence.”

What is the route of experience? The route of experience is *time*. But the perception of *time* is evidenced only through the experience. In this process of complicities, the experience of the physical/vital movement in performance is essential in order for the performer to be conscious synchronously to the execution of the start and ending of the frequencies, musical cells, phrases or sections of a composition. This is just what form represents. Because of past assumptions this reflection focuses the attention on the comprehension of music, including its form or structure, as an “act.” Elliot asserted that “the aesthetic concept of music-as-object obscures the more fundamental reality of ‘music’ as a form of deliberate doing and making” (Elliot 1995, p. 49). The musical comprehension through the perception of form via *time* illuminates a very important demand in professional performance: memorization.

### **The duration: The formal essence of music**

The form is what defines, configures, or holds up an *object* due to the limits that it imposes on the matter of which they are made. In *music*, once it is transcended from the score/object to the sonorous world thanks to practice, the only way to appreciate its form is hearing it attentively and letting the time occur, trying to perceive *when* the sound and the multiple associations that the composer establishes with it start and end. This is the perception of the sound *duration*. Kivy (2001) affirms:

That musical form is spatial I can only take to be a claim based on the conflation of musical form with its mode of representation. It is an unfortunate choice of words to have started calling sonata, variation, rondo, and so forth “forms”—at all, for the obvious reason that “form” is a word more closely connected in our common usage with two-dimensional or spatial images. But musical forms are not, except metaphorically (although the metaphor is ubiquitous) musical shapes. They are *temporal patterns* (p. 211).

Similarly Tarchini (2004), pianist and formal analyst, affirms that:

The possibility of a conscious monitoring of the temporal progress implies a great capacity for compiling, synthesizing, associating and under-

standing the obtained data from the score. This capacity allows us to corroborate with certainty the perceptive and formative unities, their functions, hierarchies and the different levels of tension-rest (p. 311).

What is important in Tarchini's words for this study is the acceptance she assumes of a temporal awareness in performance and its connection with the musical form.

### **The number: The organizer concept of the musical form for theory**

Although for the performers and the audience the musical form is essentially perceived "in time," in theory the form is conceptually measured in the number of figures and silences, measures, cells, semi-phrases, phrases, themes, motives, sections, or movements registered through a graphic code in a particular space: the score. The resultant quantities of all the elements of the musical form are, in theory, as static and tangible as the paper's fragments that contain them. Musical theory has named some of the most common musical forms throughout history. Sonata, lied, or fugue are some of these standardized forms. But, obviously, they do not represent the "fingerprint" of any particular piece. When theory wants to recognize and describe a specific piece, it uses the *number* to elaborate the exhaustive and individual structure of its content. As an example, the formal "fingerprint" at the beginning of Chopin's *Scherzo* Op.20 is represented in Table 1. Evidently, the names *motif*, *exposition*, *section*, *introduction*, or *transition* that appear in the analysis-table are valid for many other masterpieces, usually in the same order, but what is almost impossible—or would be the result of chance—is that the sequences that conform to the different named parts are the same in other pieces regardless of the number and the association with the measures they have.

### **Strategies of musical memory: Formal evocation**

Through the formal analysis of a composition (theoretical and temporal-perceptive), the musical contents remain mentally delimited. The resultant compartments of the contents' delineation depend, among other aspects, on the "meaning," inspiration, aesthetic, harmony, style, syntax, rhythm, melody, musical prosody, expressiveness, or technical exigencies that affect them; *qualias*—"inherent proprieties of sensorial states" (Delanoy 2008, p. 111) and so on. The order imposed by performers to these formal compartments demands of the musicians a volatile impulse of *interaction* and *expectation* of their elements, which represents in a hypothetical memorized performance,

*Table 1.* Chopin's *Scherzo No. 1* Op. 20 in B minor for piano.

<i>Section</i>	<i>Measures</i>
Introduction	1-8
Section A	9-68
<i>Exposition Theme A-1</i>	
Motif A-1	9-16
Presentation motif A-1	9-11
Transport motif A-1	11-13
Conclusion motif A-1	13-16
Motif A-1 transported	17-24 etc.

two important resources for avoiding the so feared lapse. Even when a slip emerges, the “musical mind” tries to reconstruct the material with reference to the specific details of the general elements. Form is essentially a general element so, if performers remember it, the “last” opportunity to reconstruct the musical material is in some way guaranteed. Memory survives partially thanks to the growth of security; when a commanded formal evocation begins, the consciousness of the musical content is more effective and the performance evolves synchronically from a passive verification of audition synchronically to a simple and physical execution to a controlled mental complex. This is thanks to the re-creative intention, which in symbiosis with the bodily experience provides a sensation of pleasure and security in practice.

### IMPLICATIONS

The benefits of involving formal analysis in performance as a memory resource include: (1) the potential for music comprehension, (2) the evidence of the acquired knowledge as a tool for continuing to learn from it, (3) the cultural information that it provides about structural models, (4) the mental appropriation of musical content, (5) the effective use of practice and teaching hours, (6) the prevention of lapses due to the effort of construction and de-construction of musical material, (7) the knowledge of formal patterns useful for improvising and composing, (8) the attention to the musical breath and musical discourse apart from technical necessities, and (9) the mathematical stimulus of mental processing. To resort to the formal analysis represents an exercise of compromise and faithfulness to the composer and his or her creation, which forms the basis of a “possible” performance.

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