The Ethics of Orchestral Conducting

In a changing culture and a society that adopts and discards values (or *anti*-values) with a speed similar to that of fashion as related to dressing or speech, each profession must find out the roots and principles that provide an unchanging point of reference, those principles to which we are obliged to go back again and again in order to maintain an adequate direction and, by carrying them out, allow oneself to be fulfilled. Orchestral Conducting is not an exception. For that reason, some ideas arise once and again all along this work. Since their immutability guarantees their continuance.

It is known that Music, as an art of performance, causally interlinks three persons: first and closely interlocked: the composer and the performer; then, eventually, the listener. The composer and his piece of work require the performer and make him come into existence. When the performer plays the piece, that is to say when he makes it real, perceptive existence is granted and offers it to the comprehension and even gives the listener the possibility of enjoying it. The composer *needs the performer* so that, by executing the piece, his work *means* something for the listener. Therefore, the performer has no self-existence but *he is performer due to the previous existence of the piece and the composer*, to whom he owes *to be* a performer.

There exist a communication process between the composer and the performer that, as all those processes involves a sender, a message and a receiver. The composer is the sender of the message, the message is the musical piece coded in the score, and the receiver is the performer. The characteristic difficulty of this process is that the score is not the musical piece itself; it is not even its mirrored reflection or a scale model, like a mockup but it is the result of a complex transfer. The musical work, an essentially dynamic being that takes place in a temporal-acoustic space, is translated in the score as an incomplete and imperfect code of bi-dimensional graphic signs, most of which are of an indeterminate significance. Even the most reliable symbols –that is to say, those, which refer to pitch and length-, are purely *relative* and not absolute.

Such code, indeterminate, incomplete and imperfect, allows the performer getting to know very little for certain: just pitch names, their length relationship, the musical instruments that might produce them and some morphological relations. Everything else must be inferred, reconstructed, quantified or qualified on the basis of the presence of ambiguous directions, suggestions, and different kinds of vague proposals. Its perceptible execution implies hard work of study, investigation, reflection, imagination and assessment.

The knowledge the performer can acquire from the context is added to the score basic decoding of its graphic content-. It is, in short, the knowledge of the piece in its *poetic level*, according to Molino-Nattiez's beautiful and appropriate terminology. Let us remember that in this study level of the musical piece, the techniques and rules that guided its construction ought to be taken into consideration as well as the particular composition strategies that show uncover evidence or clues the composer left (letters, interviews, statements, etc.), his intentions regarding communication or expression, the

reconstruction of an expressive –conscious or subconscious- meaning that comes from the piece, without leaving out biographic data, historical and cultural events of his period and the knowledge of other pieces, of the same author or of others with the same stylistic tendency.

The result of the decoding task is, for the performer, to build a concept of the piece taken from the text and from what he knows about its context. It is an ideal sonorous image that the performer assumes as a belief and a desire: the performer believes and desires his concept or ideal image to be a reproduction in all senses of the composer's intention. The execution of the said concept, its fulfillment or carrying out, will be the perceptible expression of such belief. So considered the musical execution is the consequence of a sort of *act of faith*, and not the sole and exclusive result of a knowledge based on specific, reliable and unequivocal sources.

Stravinsky asserted in the conferences that came into being as his *Poetics of Music,* that there exists only two kinds of musicians, the *composer* and the *executant*, whom he differentiates from the *performer*, stating that the idea of performance exceeds the limits imposed to the executant or imposed by himself during his exercise, which ends in *the music transmission to the listener*. The idea of execution implies *the strict making of an explicit will* that ends in what itself orders.

It is impossible, by nature, for the agent that is between the score and the listener, name it executant or performer, *to transmit the music* with the neutrality with which a superconductor transmits electricity. In order to *strictly perform* the composer's *explicit will*, the agent must first develop *a concept* from *the* –but not exclusively *with*- score graphic content. The concept of the piece is, at last, what is communicated to the listener, not *the piece itself.* Said concept basically arises from the reconstruction of the piece by decoding the signs on the score but to be able to do it, the intermediary brings into action all his intellectual, emotional and cultural being.

Every good performer searches, loyal and honestly, the *composer's will*. But it is *explicitly shown* only in relation to a few parameters of the many that make up and characterize the musical speech printed on a score. The most substantial part of the content is unknown; the performer must discover it by him. It is not about mathematical problems that require the knowledge of formulae and operations. It is about *meanings not clearly stated*, truly *connotations* that the interpreter, conscious of his task, must look for not only *in* the graphic signs but also *between* them and, if necessary, behind them as well.

The performer finds his way around looking for his ground between antithetical extremes that are riskily attractive and superficial: one is the pharisaical stand, the simplistic performance of the letter of the piece which is known to be incomplete and imperfect; the other one is the usage of the alien text -whose execution according to the composer's presumed intentions must be *an end*– like *a mean* for an unashamed statement of the own subjectivity.

The mere mention of said antithetical extremes leads us once again to the aforementioned statement by Stravinsky, bringing up the faithfulness that a performer owes to the composer's will as it is graphically shown on the score. Faithfulness of a musical performance cannot be objectified: objectively different performances might be

equally faithful as faithfulness is more the consequence of the performer's *moral attitude* in relation to the composer and his work than the demonstrable presence of certain resources during the execution. The moral attitude is what imposes on the performer the permanent inquiries and reflection over *the work`s meaning*. The absence or lack of the performer's effort needed to support the *knowledge* and the *belief* that becomes the development of *his* conception of the work derives in a sort of *guilty ignorance*, and therefore, an ethically reprehensible act.

In the case of the orchestra conductor performer, the execution or perceptible made-up of the concept or ideal image that –as every performer- he made out of what is printed on the score, necessarily demands the cooperative intervention of persons who play musical instruments, as the conductor alone by himself cannot produce the required sound. There emerges another basic consequence: *to be* an orchestra conductor is also *an effect* caused by the instrumentalist *being* who has previous autonomous existence and collaborates with him and, as such *causes his existence* as conductor.

An orchestra is not an object (*something*) but a group of individuals (*many somebodies*), of which the conductor is part of as *primus inter pares*. In a professional orchestra, its members had devoted many years of their lives to acquire musical knowledge and to develop instrumental execution's hard skills. They share the interpretative reading of the text with the conductor, of which the conductor has the whole while the performers have the sum of its parts. The conductor's duty consists of informing the performers his concept of the work, guiding the individual performers to play their appropriate roles within said concept and putting at work all the resources leading to its effective execution.

The conductor's authority and the quality of his action as such do not come from pre-established formal circumstances, but from the recognition and acceptance by the individual performers during the shared task of the existence of several abilities in the conductor:

- The possession of a text's concept rich in meanings,
- The communication of such meanings with great accuracy and intensity to those who are going to perform them,
- To have intellectual and emotional call power, for the shared task,
- To possess a refined quality control of the product performed by everyone and, if necessary,
- To know and implement all the required means to improve such quality.

Nothing of what an orchestral conductor could interpretatively perform –not even the mechanical sound output- is possible if it does not *potentially* exist in the intellectual, emotional and technical ability of the performers that work with him. On this side of reality, another moral *duty* for the orchestra conductor arises: the recognition of his own limitations and the significance of the individual performers' contribution for the execution of concept.

The performers contribute with their total *being*, the innate and the acquired, the intellectual and the emotional, their knowledge and skills, their will and their vital time, in short, a substantial quantity of highly valued talent and assets, at the service of the concept

execution that the conductor proposes. If the conductor's concept was not created from the *moral attitude, which* we call *faithfulness to the composer and the work*, in his proposal there will be a *usage* of the performing human beings, put at the service of a concept grown from his own subjectivism, an autocratic *demand*, instead of the development of convoking principles. If the conductor's concept was created from the correct moral attitude but the conductor does not train himself in an adequate way to communicate with the human group that works with him, in order to make it more dynamic, channeling and efficiently leading it up to a complete fulfillment, there will be an erratic *experimentation* with the group, that will also result in an ethically reprehensible behavior.

Orchestral conducting, as branch of musical performance, is not a profession whose members are required to belong to an official association. There is no certificate or registration required to those who practice it. There exists no positive legislation to establish regulations not even make its malpractice punishable. There are no courts of honor or ethics to impose moral sanctions. There are no external coercive factors to influence the professional conduct of those who practice it. That is why the actions by which the orchestra conductors elaborate their concept of a musical work and update it during the execution, are fully free acts that set transcendent relations, both with the composer and the performers that collaborate in its execution.

Likewise, a conductor's work is based on operations made over the whole being of those who make up the orchestra: their minds, affectivities and body skills. At the beginning of every rehearsal, each performer is at disposal of the piece execution, for that, they offer the conductor as if on a tray the most precious they have: their integral being. This generates a strong ethic responsibility (Scarabino 1998).

In any case, any musical performer of great magnitude is a permanent *generator of coexistence* (Scarabino 2008). Transforming the graphic signs of the score into a sensory, intellectual and emotional communication experience that mysteriously involves the composer, the performer and the listener in a unique and unrepeatable experience, without temporal or language barriers, is almost a miracle. To that, it is added in the case of orchestral conducting the unavoidable presence of the performers that are part of the execution, who also become part of the phenomenon of such coexistence. In the time span of an orchestral piece being executed, a transcendent circle of *co-lived* existence –living *with* the other one- that goes beyond the mere coincidence of multiple persons –composer, conductor, performers and listeners- being together in a certain time and place. Such *transcendence* is the one that places over the conductor or anyone studying to become one hard ethic responsibility of which the preceding lines try to arouse full awareness.

What is orchestral conducting?

Semiology […] is the study of the specificity of the functioning of symbolic forms and the phenomenon of "referring" to which they give rise. (J. J. Nattiez, *Music and Discourse – Toward Semiology of Music*, Princeton University Press, Princeton N.J., 1990, p. 15)

The core of orchestral conducting is a communication process. The conductor is the person who delivers the message, we find him at one end, and at the other end, a group of receivers, the performers. Faced with the score, the conductor is no different than any other person trained to read musical language; he holds the ability of decoding the score and construing a sonic concept of it. Performers of an orchestra, individually taken into account, are not different from other performers either; equally capable of performing with their instruments the concept they retrieved from the score. The peculiarity of orchestral conducting is that the sender delivers *his* concept of the work to the receivers-performers, who render it into a perceptible piece. This is the heart of the matter from which the other aspects of orchestral conducting expand as concentric circles.

This idea broadens if we widen the consideration to the complete process that evolves between the moment in which a composer *hears* with his creative imagination a musical idea, colored by any of the isolated or combined instrumental timbres, and the moment in which somebody –maybe decades or centuries later listens to that idea executed by a conductor and an orchestra.

1. The composer conceives or imagines a musical idea that has a clear acoustic temporal identity in his mind. A musical idea may have purely musical sense like, among other possibilities:

- May introduce a new thematic material, unprecedented, not previously listened,

- May follow or refer to a known material, as when repeating, re-exposing, varying or developing a motive or topic already listened to,

- May unveil the author's stylistic marks which refer to other works of the composer or that are related to traditional practices or clichés of his time.

The three previous alternatives are in the sphere of the so-called *congeneric* meanings, which lead to purely musical ideas. But, also, the idea may have other meanings, called *extra generic*, which lead to objects, moods, situations or

processes that have no relation with the purely musical sphere, like in the allusions or references in the descriptive or programmatic music.

2. The composer writes down his idea on a score using the resources that the conventional musical writing provides or an *ad hoc* writing that he can create in order to specify his thoughts. The resulting *text* (symbolic form) apparently leads to the original idea of the composer - a dynamic phenomena of acoustic-temporal existence- from a record of static and bi-dimensional graphic signs. Throughout the reading and decoding of the score, the conductor-performer develops *his* concept or ideal image of the work in his mind that if matches an adequate moral disposition, the conductor supposes and wishes to result in the reconstruction of the composer's idea.

3. The conductor-performer communicates the ideal concept or image to his colleagues-instrumentalists, who, in the end, produce the sound that becomes perceptive reality. In order to achieve that, the conductor develops a communication code based on gestures (symbolic form), which the instrumentalists decode and turn into the required psychophysical actions to play their corresponding instruments; they try to mold the sound according to inferred contents from the image sent through the conductor's gestures and, occasionally, speech, during rehearsals. In this sense, it has to be taken into account that depending if it exists or not the intention of communicating there is a distinction between a simple gesture-*act* (without intention) and gesture-*sign* (with intention).

4. The achieved concept is perceived by the listener, who also shapes it according to his cultural-congenital being. Besides of –or apart from- the congeneric or extra generic meanings willingly added by the composer to his work, the listener may be led to his own experience, finding extra generic meanings that he feels like his own, not wanted or wished by any of the preceding individuals in the described sequence.

The detailed sequence includes a pure sender (composer), two receivers-senders (conductor and performers) and a pure receiver (listener). The resultant of the process is not linear, it is not developed in a straight, inexorable and completely foreseeable way, messages do not convey the exact given significant meaning. On the contrary, it should be considered in each stage of the process the presence of:

- A communicational purpose, stated by the composer in the score, by the conductor with his gestures and by the performer in the sound he creates.
- A product of that purpose or message. Respectively, the score, the conductor's gestures, and the sound created by the performers.
- The inference or reconstructing of the message. In the case of the conductor, the message in the score, in the performer's case, the message in the

conductor's gestures, and finally, in the listener's case, the message of the 'listened sonorous form'

As a result, each understood meaning comes from an inference or reconstruction of the message made by each of the successive receivers. They reconstruct the message from a perspective of his total *being*, which logically include the innate and the experienced. In such way, the process would be actually defined by the following sequence in which the descending arrow represents the purpose and the ascending arrow, the inference or reconstruction:

Idea

↑

Composer

↓

Score

↑

Conductor

↓

Gestures

↑

Performer

↓

Sound

↑

Listener

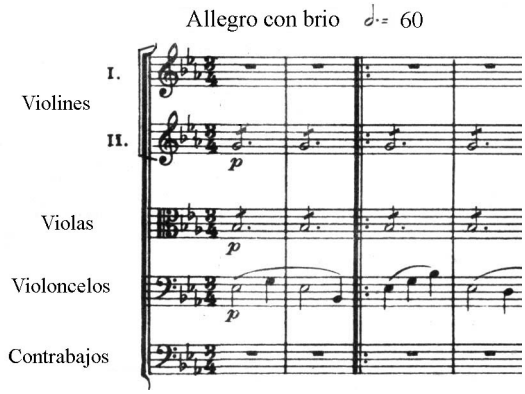
↓

Concept of the piece

In the case of the composer, the transfer of the mentally imagined or heard conception –what is conceived in his mind as a sonorous image- to the written on the score, it also involves a *reconstruction* of the imagined and a *purpose* when writing it down in order to pass it on eventually to third persons by appropriate graphic signs and thus fulfilling or executing his idea. Because of that, the first stage of the precedent diagram is pointed as a*re construction* process that is what a composer makes with his idea before turning it into graphic signs. In the previous moments of the writing down and just to record it in the score, the idea should acquire a defined form that is specificity. This specificity may be only partly recorded in the paper that like an imperfect mirror does not reflect the exact image projected on it.

In front of any score we may have the certainty that the same contains an exact register of a few aspects of the musical idea: only the metric grouping, the names of the pitch heights, the figures of the temporal relations and the involved instruments. Everything else, in its relativity, offers room for speculation and inquiry, causing an intricate series of decisions that a performer should take looking for the purpose outlined by the author, as a previous step to the attempt of reconstructing his idea. For example in the beginning of the main piece of the first movement of the Beethoven's Symphony No. 3, *Eroica*, (bars 3-6), we *know* that it goes in one *tempo* and character labelled *Allegro con brio* (M.M. = 60), in a 3/4 meter signature, on the pitches of the *E-flat major* triad:

Example 1. Beethoven, *Symphony N 3 Op 55*, 1st. movement, cc. 3-6.



We also *know* that Beethoven wrote down the theme in half notes and quarter notes included in certain explicit ties and that it was entrusted to the violoncello's section below the accompaniment played in eighth notes by the second violins section and violas, all of them in a dynamic level called *p (piano)*. But still this that we *know*, this presumed *certainty*, holds gray areas and hints of uncertainty. For example, when Beethoven *heard* with the ears of his sonorous imagination the piece – as the poet *hears* the sound of the words in his mind that then uses to make a metaphor- with what tuning did he hear it? With the A of Mattheson (Hamburg, 1762, 408 c.p.s.), with the one of a Stein piano (Vienna, 1780, 422 c.p.s) or a Broadwood piano of the first half of the

19th century (449 c.p.s.) ? (Ll. Lloyd: "Pitch Standard", *Grove's Dictionary of Music and Musicians*, 5th. ed., Vol. VI, London, Macmillan, 1973)

As regards *tempo*, the *Eroica* was composed in 1803, Maelzel invented the metronome in 1812 and Beethoven specified the metronomic markings of the symphony only in 1817. Is there full assurance that when mentally *reconstructing* the piece in 1817 in order to check it against the metronome and determine its *tempo* in a scale of = 60, such reconstruction recovered *the exact same tempo* of the original idea, such as Beethoven *heard* it with his 'ear imagination' 14 years before? Wasn't Beethoven reconstructing the content of his own score –composed 14 years before-like any performer would have done just reading the text?

If the doubts that arise from the supposedly positive and precise information are so relevant, what to expect from other aspects or uncertain non-precise factors of the score? For example, what is the volume level in a decibel scale of the *piano* in the score in relation to what imagined by Beethoven? What type of written articulation of eighths should second violins and violas perform to follow what Beethoven imagined? *Alla corda*? Slightly *spiccato*? All that interpretative process full of doubts and questions embeds into the most comprehensive and broadened matter of the role of the orchestra conductor, his training and expertise before each commitment.

So how to address the issue? It is important to do it through a systematic approach. A system develops from the basis of a few interrelated general principles from which some primary consequences are deducted. And other consequences stem from those of an inferior hierarchical order and so on and so forth until the application of what the system commands for the isolated case. The strategy arranged for the particularization process, from the general principle to the individual cases, and tactics that are applied to solve these, are carried out under the influence and projection of those fundamental principles of the system, from which they derive.

In summary, the basic principles of orchestral conducting on which is based the systematic point of view that is considered in the present work are:

- Orchestral conducting is a communication process that comes from an individual (conductor) to collaborators (performers).
- The content of the delivered message consists of a concept of the meaning of a text that sender and receivers share –the score- from which the individual-conductor has the whole and the performers the sum of its parts.
- The means for the effective communication of the individual with the group is mainly gesture codes and secondly the speech during rehearsals.

- The purpose of this process is that the performers execute the concept that the individual-conductor has developed of the composer's coded piece.
- The product of the process is the actual expression of a potential content – *one* among many possible contents- of the musical piece graphically symbolized in the score.

The Communication

The individual sender, conductor

We can define the orchestra conductor as *the musical interpreter who builds in his mind an ideal sonorous image or concept that he has developed from a text (score), and realizes it through a group of persons that play musical instruments*.

Dirigir (to direct) is, in Spanish,[1] the verb that refers to the quintessence action of the orchestra conductor. The verb *dirigir* has its origins in the latin *dirigere*, *di-rego*. This verb is related to *regis*, *rex*, *regnare*, *regnum*, *regere*. As it could be appreciated, through this ramification, *dirigir* contains strong connotations of "to reign", "to govern". We know that only collective use, over the years, validates a word; as such, any proposal for replacing the Spanish terms *dirigir* and *director de orquesta* by any other apparently more suitable term according to the role and the performer, results illogical in the end.

When trying to explore orchestral conducting deeper, it is important to be aware that in other languages –that is to say, in other ways of organizing and expressing thoughts- denominations, etymology and semantic ramifications lead us to different paths which may be very fruitful. Thus, for example, in English, the terms *conductor* and *to conduct* are used. The Spanish word *conducir*, literal translation of *to conduct*, also comes from the Latin *cum-ducere* that means something like *to guide with me.* The root of this word is the same found in *e-ducere* –linked to educate, education- and which meaning is *to guide outwards.*

Whereas *dirigir (to direct)* contains connotations of *reinar (to reign*), in association with a king`s figure and the power he holds, *conducir (to conduct)* approaches the idea of *educar (to educate)*, that is to say, bringing out what is inside, in other words, to fulfill the potential of the person. To follow each of the semantic clues originated in words including the root *ducere*, leads to a lot of actions that, in a subtle way, come together to make up what an orchestra director really is and does. In that same way we find *to deduce*, that denotes to foresee consequences from a principle, to infer, to come from the universal to the particular; *to induce*, that is to have influence on another; *to seduce*, that is to captivate, to attract; *to produce*, understood as fathering, procreating.

Etymologies lead to discover two apparently different antithetic attitudes. On the one hand, *dirigir (to direct)* and its connotations, with an *ego-centripetal* attitude in which one person conquers, dominate, triumphs over everybody. On the other hand, *conducir (to conduct)* and its connotation of an *ego-centrifugal* attitude, in which one person opens up to others in order to guide, persuade, advise, help and teach them, contributing to their own fulfillment and that of the group, through the joint work.[2]

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[1] The source of this essay is a textbook for the Conducting class at the Pontifical Catholic University of Argentina.

[2] What is stated herein refers to the psychic and emotional attitude of a conductor. It is clear that the gestures he makes when conducting are –or should be- centrifugal by nature as they tend to project themselves into the space, communicating something to someone.

Natura ɛt Salmantica[3]

In order to be an honorable orchestra conductor, getting onto the podium and waving the baton is not enough. A real orchestra conductor is a different thing. There are people who claim that a conductor is *born*, not *made*. But reality shows that a real orchestra conductor *is born* and *made*. Certain innate and essential conditions are required -*quod natura dat*-; the acquisition and development of knowledge and skills are required as well -*Salmantica præstat*-. It also applies to the practice of any profession or trade in a responsible way.

Certainly, not every real conductor achieves the level of those widely recognized, as not every excellent medical doctor in the world is awarded with the Nobel Prize in Medicine. In this planet, there are hundreds of orchestras, opera houses and ballet companies –that are not necessarily the Berlin Philharmonic, The Metropolitan of New York or the Mariinsky of Saint Petersburg- where many *real* conductors practice their profession with dignity. They were born with the required conditions and they prepare and keep on learning thoroughly to face every challenge during their careers.

If the orchestra conductor could only *be born*, if the previous education were to be impossible and the study and training were unviable, nothing of what was written or passed on in treatises, classes or courses by *maestri* such as Berlioz, Wagner, Richard Strauss, Weingartner, Malko, Scherchen, Rudolf, Prausnitz, Ferrara, Halasz, Celibidache, Leinsdorf, Markevitch, Previtali, Dervaux, Swarowsky, Fournet, Boulez, Ozawa, von Karajan, Kalmar, Meier, Schuller and others, should have the minimum sense. According to the appropriate metaphor by Peter Paul Fuchs, such series of pedagogical experiences allow to build a solid Orchestral Conducting *middle* and *upper-middle class* that, apart from and besides the *aristocracy* at the pinnacle, has contributed the professional standards to increase in the whole world.

Let us start from what *Natura dat*: What conditions are required for orchestral conducting? A certain *musicality* is essential, that intangible characteristic, "a term that need not be defined because those who have it know what it means and those who do not will never understand it through definition" (E. H. Green, *The Modern Conductor*, 4th. edition, Prentice-Hall, Inc., Englewwod City, N.J., 1987, pp. 1-2)

Apart from *Musicality,* there are other innate conditions that seem to be vital:

1. Intelligence, capacity of abstraction and sonorous imagination, to understand every aspect of musical language and to rebuild from reading the text-score an ideal image rich in sensorial, intellectual and emotional connotations. Self-control must come with these conditions since a state of anxiety may create the impression of a lower intelligence and a mediocre intelligence may appear superior due to the lack of inhibition. Self-control is crucial in the joint work of performers and conductor.

[3] *Quod natura non dat, Salmantica non præstat*. Latin expression meaning "If you do not have the brains, no amount of studying will make you intelligent".

2. Unfailing strong will. During the education period, in order to receive and develop the required knowledge and skills. Later, during the career in order to achieve the fulfillment of the ideal concept or image. As the conductor operates over the human being, the result may depend on the individual personalities of the performers as well as of the group characteristics and the dynamic of the body we call *the orchestra*. One who is not willing to use the right means within his reach during the necessary time in order to *move* the group to achieve the exact ideal sonorous image he built in his mind, in all its parameters, does not *have what it takes* to become a real orchestra conductor.

3. Aural acuteness and training for subtle differentiation of pitches, timbres and volumes. The so-called *perfect pitch* is not essential. Instead, it is paramount the development of a relative perception highly sensible to pitch, timbre, dynamics and articulations, in order to be able to assess the performance result in-depth and work on it until reaching the *desired sound*.

4. Highly voluntary control of corporal movement of the complex formed by the scapular waist, the shoulder, the arm, the forearm, the wrist, the hand and the fingers, to develop fine and medium mobility skills required for the orchestra conductor's body-language.

   So far we have seen what *Natura* must *give*, what a real conductor *is born* with. All the rest – that is not little nor superficial- is built over those skills, from the knowledge of musical language in all its grammatical, syntactic and semantic complexities and up to the most refined baton's skill. Altogether is what *Salmantica præstat*, it is what the conductor *becomes into* and the motivation for these thoughts to be added to the plentiful existing and valuable material.

Course of studies or life plan?[4]

To embrace a profession involves following a certain *life plan*, within which a formal *course of studies* in an educational institution will be just a "few years moment". However, such formal "moment", so limited in time, has given birth to one of the favorite hobbies of those teaching professionals: to devise "ideal" courses of studies for their respective degrees. This hobby *always* implies the risk to come up with typical elephantiasis, corrective plans, to make up for all the students cultural shortcomings. These are plans triggered by a proposition such, as *it is important that a* ... (fill in with the specialization) *should acquire such knowledge*…

It is easy for musicians to give in to temptation that leads to atrocious situations in which, for example, 46 or 48 compulsory courses (subjects) are required to complete their university course whereas medical doctors or engineers graduate with 32 or 34. This does not withstand the minimum analysis. The education of a professional is a *continuum* in which the period of undergraduate degree courses is a learning stage at which end; the graduate must be trained only to *begin* the exercise of his profession -not a minor issue- in an honored and responsible way. Luckily enough, one will never be able to know *everything* about a profession. Within this formal studies stage it is completely excluded all

[4] This item was written having in mind the state of affairs in Argentina, but it may be valid elsewhere.

that is related to educational achievements during childhood and adolescence, or what it is gained through the own professional experience as well as the own cultural and thoughtful interests

Apart from the specific subject (Conducting), a course of studies for the education of an orchestra conductor should include at least:

- The subjects leading to the most complete command of the musical language in its grammatical, syntactic and semiotic aspects pointing at the deep knowledge of every structural and hermeneutics aspect. Adopt for those subjects the preferred title and planning.
- The history and evolution of language and Styles analysis
- Basic acoustic, Instrumentology and Orchestration, including basic knowledge on the execution of instruments from the various orchestral families
- Significant piano skills focusing on score reduction
- Ear training focusing on simultaneous listening of different voice types/types of voice pitch
- Notions of Psychology and group dynamics
- Voice technique notions, including coaching and experience in Choral Conducting, both of paramount importance for the opera and oratorio conducting

Regarding the programming contents of the specific subject – Orchestral Conducting- they may be summarized in the following items:

- Reflection and formation of concepts about musical interpretation, the definition, duties and ethics of the orchestra conductor, the communication, the interpersonal relationship between the conductor and his coworkers, rehearsal's methodology and dynamics, group psychology and group dynamics
- Basic knowledge and experience of body mechanics, development of body consciousness and posture, voluntary control of muscle tone, and independence of hands, forearms and arms.
- Notions of gesture psychology and its application to body language.
- Analysis, study and memorizing scores methodology
- Theory and practice of *impulse* –sometimes called "preparatory beat"- applied to different situations of the beginning, the becoming and the ending of musical discourse, including variety of articulations and sudden and gradual changes of tempo and dynamics.
- Theory and practice of all the usual metric patterns, applied to different *tempo*, dynamics and articulation conditions
- Theory and practice of conducting through bar grouping
- Theory and practice of simple and compound subdivisions
- Theory and practice of fermatas, their interpretation and execution
- Theory and practice of instrumental and vocal accompaniment, including the *recitativo*
- Practice of irregular and asymmetric bars and frequent bar changes
- Practice of scores conducting in unconventional notations.
- Minimum knowledge of a basic repertoire

I have not pointed out the fact that for an orchestra conductor it is vital to have a good command of languages. To be able to fluently read and speak a couple of languages besides the own – one of Saxon root and one of Latin root - is almost essential for daily communication. Moreover, finding scores with instructions written in the vernacular language of the composer is an everyday reality and there is a vast and significant bibliography that could be comprehensible only understanding English, German, French or Italian. Furthermore, phonetic knowledge of at least those languages – and, of course, Latin- is of the highest importance for the coaching and conducting of vocal works. In addition to the influence that the meaning or sense of a verbal concept may have over the involved musical intention, the phonetic of a language is a timbral and articulatory factor, therefore sonorous, a *musical* parameter. That is a parameter that joins in a compositional level to the other sounds and instrumental articulations in a score and that the conductor cannot leave aside when performing the work.

Every generalization entails the evidence of its exceptions. In favor of *Natura* in an almost pure state, with hardly not *Salmantica* at all, we can evoke cases as that of Toscanini, jumping at the age of 18 from his violoncellist stand to the podium and the fame with the already legendary *Aída* in Río de Janeiro or Lorin Maazel, conducting at 9 an orchestra at the New York World's Fair (1939) and soon after the NBC Symphony Orchestra, invited by Toscanini himself. Certainly: natural talent, musicality, instinct, intuition, charisma, music stand experience, observation, are factors that may a conductor *become* one –even a *great* one- regardless of a methodical academic education. As well, it is commonplace that w*hat Natura provided, Salmantica will not take* . To prove it, we have the cases of some of the true *stars* of the last decades, as Claudio Abbado and Zubin Mehta in their 20´s, graduating in 1957 from the Academy of Music and Performing Arts in Vienna, in the class of Hans Swarowsky, after attending a course given by Carlo Zecchi in Siena, where they were fellow students with Barenboim in his 15´s, who had already taken lessons with Igor Markevitch in Salzburg.

Last but not least, that what is not provided by *Natura* nor by *Salmantica* and only depends on the attitude with which an intelligent and sensitive person moves forward through the world, feels himself as part of the humanity, participates in culture and cares about the development of his own personality. Bruno Walter stated it as:

> Without the moulding of personality by the self-education of character, without the cultivation of one's general spiritual trends, without lively devotion to the interests of the mind, no course of musical studies, however zealously it may be pursued, can suffice and lead to the desired goal. To put it in a nutshell: one who is no more than a musician, is half a musician. The idea of *growing*, the striving for development, must embrace the whole inner man, and not only his musical gifts; the crown of his tree of life, his musicianship, will spread and grow in proportion as he sinks his roots firmly and broadly, on the soil of universal humanity. (Bruno Walter, *Of Music and Music Making*; W. W. Norton & Company, Inc.; New York, 1961; pp. 106-107)

The group of receivers, the performers

Since the days when the instrumental ensemble that accompanied sung-dramatic performances in the 17th century began to be called *orchestra* –until then that Greek word

was used to name the area between the stage and the audience- a rich variety of metaphors related to its organization and performance start to flourish. One of the most widespread metaphors expresses that the orchestra is a musical instrument that the conductor *plays* through his gestures. If we assume this metaphor as reality and someone thinks that *that* is conducting an orchestra, we can be trapped in a very dangerous simplification, because we are obviously speaking about an *instrument* that thinks, feels, reasons and reacts. An orchestra is not *something*; it is not an object, but many *somebodies*, a human group.

Many somebodies gathered together not necessarily make up a group: they may simply form a *bunch of people*. A bunch of people consists of a fortuitous and quantitative instance. A public transport or an elevator carries a certain amount of people at any given time: each person alone is deep into his own being and circumstance, the only contact point with his closest neighbor is sharing the same space and route. In this case passengers do not form group, but a bunch of people.

Many somebodies, may degenerate into *many anybodies* and in turn become a *mass*. The behavior of the mass is completely anti-individual. *Anybody* who is absorbed and gobbled up by the mass is an *ex-somebody* who lost his individual thinking and feeling capacity by copying and adopting attitudes or carrying out actions which he would never adopt or actually take (per se) when being *somebody*. A mass is not either a group.

Unlike a mere bunch of people and the mass, the metamorphosis of *many somebodies* into a *group* –thus approaching the idea of *team*- entails a qualitative instance. The performers transcend their primary condition of a *bunch of people* in order to fit into the category of a *group* as soon as they start to develop the basic collective sense of a common objective. The task that joins them is *to make music together* (let us add: *to the highest possible level*). On this basis, traditions and inner standards start to outline, assigning different roles, responsibilities and hierarchies to the performers and establishing specific behaviors and discipline. As years go by, shared experiences pile up and settle, strengthening the collective identity of the group.

From the perspective of a young nation like Argentina –and of a still immature society- it is not easy to wholly understand the experience of *belonging in a group,* like a performer of the Weimar State Orchestra whose antecedents date back to 1482 (it is not a typo, it is indeed 10 years before Christopher Columbus first voyage…) Among the numerous and enthralling facts that marked the history of that orchestra, we may point out that Johann Sebastian Bach joined it as a simple section violinist in 1703, then he was promoted to concertmaster in 1714; Johann Wolfgang von Goethe was appointed managing director of the theatre at Weimar between 1791 and 1817, thus the orchestra was at his charge during that period; Franz Liszt was the principal conductor between 1848 and 1858, premiering several compositions of his own like *Les préludes*, the *Faust Symphony* and the two piano concertos playing soloist in the first conducted by Héctor Berlioz and finally Richard Strauss was also Music Director, premiering there his symphonic poems: *Macbeth* and *Don Juan.* Clearly, being part of the Weimar State Orchestra *means* something very different than of being part of a pick-up orchestra - whatever its excellence- made up for a n specific event, no matter the category of the same. All that not looking down on the quality level of other German orchestras, like the ineffable Berlin Philharmonic.

Please allow me to introduce an innocent fantasy for a better comprehension of another aspect of being part of an orchestra. Let's imagine a group of sculptors wandering around Rome *circa* 1498. Suddenly, they run into a young Michelangelo Buonarroti, who gives a chisel and a hammer to each and invites them to participate entrusting each a small piece of *La Pietà* exactly as he *sees it* in his imagination and just as he bi-dimensionally sketched it. He hands over a cutout of the drawing entrusted to each sculptor and the sculptor-master keeps a full drawing. The moment the sculpture is finished, the remains will become marble powder and will fade away thus preventing further contemplation of its marvelous magic. Still, it could be re-created every time from the drawings and a new marble block, with the same result of culmination and annihilation. Thus, *in sæcula sæculorum*.

This fantasy, which in the sculpture context could evolve into a chapter of Dante's "Inferno", is the everyday life of an orchestral performer. Every part of a valuable composition that rests on the stand at every rehearsal is the invitation that a creator, maybe a genius composer, extends the performer to re-create his work. It is a personalized invitation that awards a priceless distinction. It is a privilege as inevitable as sublime. Michelangelo sculpted himself with his own hands and tools la *Pietà* that moves us nowadays, as it was at the time he finished it. However, Beethoven does not have the same fortune. He *needs* the most humble performer and the last chorister for the perfect miracle of the *Ninth Symphony* to be executed to its magnificence, and still being poignant like 50, 100 or 150 hundred years ago. This is the first and essential reason of the existence of a human group we call orchestra and of its great cohesive strength: *the essential need* that any musical artistic creation has of being *executed* in order to offer it to the contemplation for the rest of mankind. This is also the basis of their *belonging*. A belonging that does not need, perhaps, a centennial existence in order to be expressed, but that is undoubtedly part of the powerful motivation that drives the orchestra members every time they have to recreate a masterwork. This may explain the results of a sociological study carried out between 1990 and 1991 on 78 orchestras in USA, Great Britain and Germany: it showed that in comparison to other twelve professions, the orchestra member has the highest inner motivation level: 6.2 points over 7. (J. Allmendiger, "Life and Work in Symphony Orchestras", *The Musical Quarterly*, Vol. 80, N° 2).

Is it possible for the *group-orchestra* to turn, just for a moment, into a *mass*? For a group to become a mass, a collective emotional intensification process is required until the rational individuality of each member is neutralized. It is a process where the imitative responses finally end replacing the critical sense of each member. In a negative way, what sparks that process in an orchestra is usually a non-musical related issue. Among those triggers we can find some deep and unfortunate issues such as the interference of racial, political, working, salary and other type of issues that may arise old hidden resentments. Other circumstances are punctual, momentary and certainly less serious than the previous ones. For example, inadequate environmental conditions due to lighting or temperature problems discomfort in trips and accommodation, etc. In those conditions the negative feelings and collective emotions deepen, bringing about an imitative response of a *domino effect* that quickly disables the individual critical sense of each member of the group and makes him part of a little *phobic mass* totally incapable of -as long as that condition lasts- creating the intellectual and affective conditions required by the intelligent and sensitive action of *making music together*.

Besides, however – and curiously- the phenomena may occur not only in the negative sense that the *mass* concept usually carries but in a positive sense of unsuspected and gratifying diversions. Favorable conditions, like the guidance of a conductor with a strong charisma executing a transcendent text full of expressive content, the challenge of playing in unusual contexts –for example a tour- or all those elements combined may produce an uncommon enhancement of positive collective feelings and emotions. The *domino effect* takes then another direction: a kind of pleasant vibration is passed on from person to person until the individual becomes a unique collective will. In an irrational way that cannot be put into words, a kind of shared thirst for achievements arises in the orchestra resulting in a notably superior execution to its usual performance. Miracle maybe? Not really, just the potential group capacity showing with a higher intensity than usual.

An orchestra is a highly refined product of a civic culture, thus it is not an island inside the community in which is inserted but rather a representative extract of the same. It is a small society inside another society from which the members come from and it reflects their virtues and imperfections. Igor Markevitch used to say in his classes that in order to get to know a society, its people, it was enough for him to have the first rehearsal with a local orchestra.

A rehearsal room is neither an office nor a temple. To be part of an orchestra is not to take part in a bureaucratic activity, but it does not mean either a mystical experience. In art, the first idea is errant and the second an exaggeration.

A well-done bureaucratic job is commendable and it may be the means for a respectable personal fulfillment to many people. In a job of this kind, the final result is the most important pursuit, which is not influenced by the emotional involvement of the doer. It consists of filling forms and completes the demanded tasks in the right order, to press the right key in the computer and a series of undertakings that lead to the completion of the job and its resulting right or wrong. It will depend on having complied with all the demands and having correctly executed the proper tasks. A doer is replaceable by another who is able to comply with the demanded and/or able to press the right keys in its due order. It is not necessary to engage emotional components of the doer and if that is the case during the execution of the task, its presence does not influence the results.

The member of an orchestra is instead in the middle of intellectual and emotional motions that we may call excitement or persuasion. The performer should be persuaded or get excited by the conductor to produce the sound that in turn will move or convince the listener. Everything referred to, of course, the expression of the intellectual and emotional potential of the masterpiece that the conductor and the performers must execute together. It is not easy to ponder the level of emotional involvement required for the member of an orchestra to efficiently execute such a task. It seems evident that the result should have an emotional content. An actor does not need to live the actual circumstances of his role in order to get to the spectator: it is enough for him to resort to his acting technique. The result of using this acting technique aims actually to arise an emotional response in the audience. The result of a performed musical piece should aim to get the same result. An adequate *spiritual atmosphere* is at least required inside the group if not a transcendent mystic. This indescribable atmosphere is not a subjective impression

although some psychologists may argue this statement. The reality that comes from a group is not, maybe, demonstrable, but its existence is revealed when people with different sensitivity, temperament, education and experience –like in an orchestra- may perceive it (C. Wolff, *Psicología del gesto*, 3a. ed., Barcelona, Luis Miracle, Editor, 1959, p. 125). All that has been experienced to a greater or lesser extent in some opportunity by any member of an orchestra: it is an ideal worthy of being daily pursued since the musical result that we aim to achieve depends to a high degree on that spiritual atmosphere.

The interpersonal communication

An essential part of the interpersonal communication process between the conductor and his collaborators takes place in the rehearsal period. In this period the gesture message occurs, the significance of each gesture is established in relation to the text, the agreed meaning that the conductor placed inside the text is communicated and its expression is practiced through the sonorous action of the members of the orchestra, all that leads to a concept of the work transformed into perceptible sound.

We talk about *an essential part* and not *the whole part* of the communication, hence the rehearsal naturally does not freeze the concept of the work, it does not crystallize it. In the rehearsal there is an agreement on the concept, it is specified, consented and shared by the conductor and the members of the orchestra, but it must be *updated* every time the work is played in its complete version and without interruptions. Definitely an update shall take place every time as regards the communication process: it should be renewed even admitting the slight differences, deviations and/or alternatives inherent to human nature, not only in relation to the conductor but also the members of the orchestra.

There is a lot to ponder regarding rehearsals. First, we shall take into account that the rehearsal is the moment in which the abstract relationship conductor-orchestra materializes, personalizes and manifests. It turns into faces, names and surnames, personal stories, psychological realities, thoughts and new feelings. From that fact emerges the essential significance that acquires usually the first contact between the conductor and the group of performers.

Not many activities *expose* a human being psychologically, emotional and culturally speaking like orchestral conducting. Since the very moment in which the conductor enters the rehearsal room, the way he walks, the way he stands in front of the orchestra, greets and looks the performers, the attitude he adopts before even moving a single finger and any sound being produced, the player starts *to read* the conductor's personality and forming an opinion. It is rarely wrong in that sense, although the contact and knowledge that comes from the subsequent work may intensify the first impression for the benefit –or detriment- of the conductor.

The rehearsal is also the transcendent time in which the transfer of the *ideal image* of the work that the conductor brings to the *real image* that all together will execute takes place. Thus, it is the moment in which everybody, conductor and performers, live the moving experience of going from doubt to certainty: the conductor in relation to the individual and collective potential of the performers in order to fully execute the concept of the work, and the performers in relation to which is the concept and how that will shed light into a particular way on the part standing in front of them, and that maybe they

already played some or many times with the peculiarities of other conductors. And all together will adapt and mutually assess as regards their personalities, culture, musicality's, efficiencies, etc.

The first rehearsal marks the beginning of the relationship between the conductor and the group and the result will depend on that relation. There exist a widespread belief that states there is no better judge for a conductor that an orchestra. That statement may be right, but it is not complete, and in order to be so, we have to formulate two questions: 1) who is the conductor? 2) which is the orchestra? Since the reality shows frequently that the same conductor may be praised till idealization by an orchestra and despised till humiliation by another. Conductor and orchestra are in a *relationship* in which neither of them can be isolated, completely separated from one another. It is this relationship that works good or bad and not each component separately.

As in judicial terms there exists the *presumption of innocence*, in orchestral conducting it should exist the *presumption of excellence*. This presumption ought to be mutual and it should work both directions: the conductor and the orchestra should be presumed excellent by each other until the experience may eventually show the opposite. For the conductor it means that it should never carry prefixed plans like a script to the first rehearsal without knowing the orchestra reaction to a specific problem. From the result obtained in the first reading of each part of the work that compose the program, the conductor will assess the *real sonorous image* that the orchestra produces and in turn, he can work on it. Just then, he will be able to make a planning of the subsequent work and not before knowing that response.

In the other hand, the presumption of excellence in relation to the orchestra means, except in the case of an evident and high incompetence of the conductor, to give credit and wait until the public performance to form a justified and sustainable opinion. It happens that conductors who make a favorable impression for the preparation work with the orchestra in the *moment of the truth* of the public performance cannot meet the expectations. And vice versa, there are other types of conductors, who during the public performance *go far beyond* what the performers presumed during the preparation work.

The score

In the communication process we are reflecting about, the message's content consists of the concept the sender-conductor has built from a musical work when reading a text, which is shared with the receivers-performers. Possession is neither equal nor symmetrical: the individual-conductor-sender has the whole and the receiver-performer group has the sum of its parts. Each member of the receiver group has his own concept of the text, a partial one, which is adapted and integrated to the whole concept of the sender-individual.

By mid-twentieth century, there were all kind of strong antinomies everywhere. The world was experiencing some postwar periods –the Spanish and Chinese civil ones, the Second War World- and other wars were going on as the "cold" war East vs. West, the Korean "hot" war, the McCarthy's witch-hunt in the U.S.A. There were unhealed wounds and right wing as well as left-wing fascism yet seemed ideological and political alternatives in the minds of many people. Those were times when, in the whole world, the disjunctive conjunction *or* had many more followers than the connective conjunction *and.*

In the fields of music, the *learned circles* fostered such oppositions: Stravinsky vs. Schönberg, Heifetz vs. Menuhin, Horowitz vs. Rubinstein, Callas vs. Tebaldi. Orchestral conducting was not excluded and suddenly Toscanini and Furtwängler were confronted. In this controversy, different sort of extra-musical issues were infiltrating. There were ancestral and deep cultural atavisms (Latin vs. Germanics), business interests by some mass media and record labels associated with them, ideological flags, etc.

Strictly musically speaking, the controversy was mainly aimed at the perennial issue of the performer *vis-à-vis* the score: Toscanini was praised as the champion of the absolutism, the one who plays *what is written,* while Furtwängler, the defender of the relativism, that one who plays *what is beyond what is written*. Today, it seems a pointless and irrelevant matter but it is important to keep in mind that in those times, the issues of symbolic forms, the meaning and the communication were matters only of interests of small and limited groups of philosophers and linguists. Some time later –in the late ´50s- early symptoms appeared of what would become in the '60s and 70's a burst of thought, research and bibliography related to those subjects.

Nowadays, it would be very difficult to hold positions of ultra-objectivism as those already mentioned of Stravinsky's conferences in 1939 at Harvard. This is as a consequence of the clarification over the nature and functioning of symbolic forms and their interpretation, over meaning and communication. We should remember that in those conferences the famous composer pointed out the existence of "two kinds of musicians: the composer and the executant" and radically differentiated the executant from the performer.

Despite Stravinsky, let us remember once again that the intermediary between the score and the listener is, by nature, not able to *transmit the music*, as a superconductor transmits electricity. The intermediary builds in his/her mind *a concept* of the score content. This concept is, in the end, what is transmitted to the listener, not the work *itself*.

The concept arises from inferring *one* possibility of reconstructing the work by decoding the graphic signs on the score, that is to say, performing them. We have already taken for granted that every good intermediary must search what the composer's will was. As we have already seen, it is explicitly expressed only by some few parameters. The most interesting, substantial part of the content is unknown only to be unveiled by the intermediary. Playing with words, we can say that *notes denote* their immediate meaning, while *connotations* ought to be find *in* the notes and/or *between* or *beyond* them.

Today, it is even unthinkable to slightly approach the score and its significance issue, without taking into account the standpoint of some lucid and luminous thinkers. For instance, some concepts developed by Leonard B. Meyer seem appropriate to provide to this issue a proper perspective. He stated that a score which contained *all* of the information communicated by a particular performance –every nuance of duration, pitch, dynamics, timbre, etc.- would not only be unreadable, but would take years to write down and months to decipher. Therefore, for the performer, the composer`s score constitutes a more or less definite set of directions which suggests a particular interpretation. Moreover, the performer`s actualization of a score is controlled in part by the stylistic tradition of performance practice since performance traditions may be considered as a kind of unwritten notation.

From this previous quotation, arises the fact that it is impossible for a score to contain in itself the whole amount of information that this same score transmits to the listener through the musician at the time it is being performed. Therefore, a score contains only a *limited* data and instructions for the *performance* of the musical work: in the case of orchestral conduction, the rest is added by the orchestra conductor and his collaborators.

Likewise, a score implicitly contains unwritten elements for its execution that stem from stylistic tradition. As a consequence and paradoxically, a score contains insufficient written information and, at the same time, unwritten implications for the control of its execution. To form a concept of the score content under these conditions pushes the performer to walk over a narrow and rough path between two abysses. On one side, the lack of written information; on the other, elusive unwritten elements. As it was already mentioned, in each abyss a substantial threat arises: on one side, to stick in a pharisaic way to what is written, and on the other, the acritical subjectivism.

The interpretation

There are two stages in interpreting a score:

1. To form a concept of its content,
2. To realize that concept, that is, to execute it.

The interpretation remains immanent during the stage of study, analysis, reflection on the score's content and the concept formation of it. The interpretation becomes transcendent when the musical work is actually executed.

The problem of musical interpretation entails the score's meaning and its decoding. According to Umberto Eco, when a code associates the elements of a transmitter system with the elements of the transmitted system, the former becomes the *expression* of the latter, which in turn becomes the *content* of the former. In the case of musical interpretation, when a score (code) associates the elements of the musical idea (transmitted system) with the graphic elements of musical notation (transmitter system), the graphic elements become the *potential expression* (unrealized) of the *content* of the musical idea.

Transmitted system:		Code:		Transmitter system:
Musical idea (content)	®	(graphic score)	®	Musical notation (potential expression)

The score *realization* or execution process transforms the performer's concept of the work (immanent) into something real which can be perceptible by the ear (transcendent). The vocal or instrumental performer carries out such process directly on his sound-producing instrument. In the case of a conductor, both choral and orchestral, between the potential content and its updating, there is *the communication of the content* to the people who actually execute it, by means of a gestural code. Applying Eco's definitions to this specific communication we may then conclude that, when the body language (code) associates the acoustic-temporal elements of the conductor's concept of the score (transmitted system) with the spatio-temporal elements of the gesture (transmitter system), the gesture becomes the *expression* of the *content* of the concept:

Transmitted system:		Code:		Transmitter system:
Concept of the work (content)	®	(body language)	®	Gesture (expression)

The interpretation of a score is a process, which must be done by the performer *vis-à-vis* the text. Nobody can replace the performer's *being and his culture* involved in discovering possible meanings, determined by a wide and subtle set of values by which a certain meaning is preferred to another one and incorporating it to the concept formation

of the text, thus discarding, perhaps momentarily, other meanings even though they could be preferred in a later reading.

On numerous occasions during classes and courses, the teacher experiences a feeling of powerlessness by not being able to fully address the student's request of being *taught how to perform*. Faced with such request, the professor -performer after all- may only point out a few guidelines which can be used *according to his own experience* to decode a score, he may refer to specific cases only and share some thoughts on them, with the secret hope of raising *the other* person's interest -in this case, the student- in a deeper and profound knowledge of the score signs. Unless *the other one* is endowed with a precise and deep intuition, nothing can replace the acquired knowledge of all the musical language parameters. Only this knowledge -coupled with essential *musicality*- can unlock the key to the signs of a text to find out *what do notes mean and what meanings can be found in and beyond them*.

At this point, some general aspects of the score elements, which the conductor must make decisions about, should be considered. For, just as the composition process is, ultimately a selection process of some among an almost endless combination of possibilities -a process in which the composer constantly brings to bear a particular set of values- so does the performer choose some among many -not *endless*- possibilities of interpretation -*decoding*- to get a clearer concept of the text in his hands.

Performers constantly express their desire of knowing the real, deep and transcendent meaning of the work. I believe the aspiration for *actually knowing* the meaning is illusory. We, as interpreters, read, study, reflect, analyze, discuss, confront, criticize, modify, exchange, we adopt ideas and discard them, and finally we replace them by others. When carrying out this task, we may get to *know*, indeed, some information about the work: its formal structure, its thematic content, its motif-handling, its orchestration, the degree of difficulty of certain passages, when it was composed, how it is located in relation to other works by the same author or other authors in the same historical period, what are its contributions in terms of language innovation, etc. Our highest mental functions are involved in this task, our capacity for abstraction, comparison, induction, deduction, analysis and synthesis.

Simultaneously we have been building a *concept of* the work, and in such process our sensitivity and our imagination begin to work. We imagine sounds, durations, volumes, layers,phrasing nuances, expressive contents. Once the concept is formed and embraced, we create an ideal image of the work. At the time of executing the concept, we plunge inevitably into the unknown. Because at that moment we are giving a testimony of *faith*: we are stating that we do *believe* in that concept. We may get to know a lot *about* a musical work, but when we perform it, we execute a concept *of* the work, not *about* the work. It is this concept of the work we *believe in*. It is not, incidentally, a fixed concept: the time that goes by between each execution of the work, probably changes the concept every time, because, as Heraclitus stated, if we cannot step twice into the same river, neither can we perform twice the *same* musical work. If *the essence* remains, it is fortunate but is an essence whose *existence* is renewed differently in each execution.

Tempo

In a famous letter to his father dated October 24, 1777, 21-year old Mozart relates his impression on a young girl playing *fortepiano*, reaching to the following conclusive argument

> She will never master the most necessary, the most difficult, the most important thing in music, namely the *tempo*, because she has been accustomed from infancy to regard the beat.

If *tempo* was the most essential, difficult and a chief requisite in music for someone like Mozart -paradigm of a great complete musician- then *tempo* is a good starting point to begin to discuss the problems of musical interpretation.

For the conscious being, the experience of chronological time is biographical. It is possible to *think* time historically or cosmically, but in terms of experience, only individual biographical time is, somehow, the synonym of *lived life*. During the performance of a musical work, for as long as it lasts, the performer's biographical time overlaps with the formal time of the work. The performer literally *coexists* with the passing of time of the work. The 35 or 40 minutes that take the execution of a Beethoven or Brahms' symphony are part of the 35 or 40 minutes *of the biographical existence* of the performer, devoted to giving life to the dormant work coded in the graphic signs of the score.

Every musician should reflect on the fact that the duration of a musical work has to be *vitally inhabited* by the performer, just as a beautiful, proportionate and harmonious architectonic space is inhabited. The major difference between this space is that dimensions, proportions and other characteristics are predetermined by the architect and executed by the builder, according to the system used in architecture to graphically record and communicate them, that is to say, drawings and relevant specifications. This system is obviously much more precise and accurate than the system used to chart music. In music, *the builder* -or rather the performer- must *build up*, as it were, *a temporal architectural drawing* full of unknowns and uncertainties.

The coexistence of the performer's biographical time overlaying the formal time of the executed work may be the reason for the performer's anxiety on the subject and the importance given to *tempo* in musical execution. It is a justified anxiety because is eminently *vital*: the execution of every instant of the musical work takes exactly the same fraction of the performer's vital time.

The performer must seek and find the *tempo* of the work, firstly, as proposed by the work itself, according to its content: nature, texture, density, dynamics, technical difficulties, etc. Maybe he can count on clear indications from the composer, through an explicit and determined metronomic quantization. But in coexistence with the work, the performer must find a *tempo* that allows him to metaphorically *inhabit it*. For the *tempo* chosen by the performer will determine the existential outcome of the executed work and with that existential outcome, the performer must fully *coexist*. This tension may result in some differences, generally not very important, with the quantitative expression of *tempo*

stated by the composer himself (metronomic markings). Even severe Stravinsky openly accepts this possibility when Robert Craft asks him about the "principal performance problems of your music":

> *Tempo* is the principal item. A piece of mine can survive almost anything but wrong or uncertain *tempo*. To anticipate your next question, yes a *tempo* can be metronomically wrong but right in spirit, though obviously the metronomic margin cannot be very great. And not only my music of course. What does it matter if the trills, the ornamentation and the instruments themselves are all correct in the performance of a Bach concerto if the *tempo* is absurd?

Metronome

Let us now consider the issue of metronomic markings prescribed by composers in the scores of their works, one of the most stinging and controversial topics of musical performance.

Johann Nepomuk Maelzel (1772-1838), mechanic, inventor and entrepreneur, invented his pendulum *chronometer*, later known as *metronome*, around 1812. The release was greeted with enthusiasm by composers, who saw in this device a suitable tool to record the *tempi* of their works and thus protect themselves from the risk of arbitrary interpretations, at least in that regard. Beethoven was probably the first great composer who used it, giving rise to an issue, which led to many studies, publications and discussions regarding the validity of his metronomizations, and the *due obedience* from performers at such explicit expression of the composer's will. However, the newspaper *Wiener Modenzeitung* of February 15, 1817, published as *separata* Beethoven's *Lied Nord oder Süd* with the following author's note, quoted by Metzger

> 100 according to Maelzel; but this applies only to first measures, since feeling also has its tempo (sic). This, however, cannot be expressed quite well at this rate, namely 100

Coinciding with Beethoven, Debussy wrote to his editor Durand a century later:):

> You know what I think of metronome marks: they're right for a single bar, like "roses, with a morning's life […]" so, do as you please.

Is it imperative to faithfully observe the *tempi* prescribed by an author? Is it unforgivable not to follow them in detail? Is it *tempo* measured by the composer with metronomic precision an expression of the letter or the spirit of a musical work? These and similar questions are part of the burden of doubt which any musical performer carries throughout his life. Much more an orchestra conductor who, by means of other people's intelligence and sensitivity, assumes the formidable ethical responsibility not to misuse the human capital under his lead, forcing a mistaken interpretation of the text he shares with his collaborators.

With regard to metronomic prescriptions, Hans Swarowsky enunciated two principles that can be considered part of the golden rules of musical performance, bringing certain calm to the spirit of performers troubled by doubts, scruples and remorse of metronomic nature. Swarowsky rules are:

1) *The figure* which the composer assigns a numerical magnitude to in metronomic marking is more important than numerical magnitude, since it indicates which pulse and consequently which bar (one, two, three, or more *beats*) music was conceived in and should therefore be conducted to.

2) *The proportion* between the metronomic markings set up by the composer for different parts of the work is more important than absolute markings themselves, so if the performer, according to the dictates of good conscience and responsibility, decides to modify any of the prescribed metronomic markings, the others must be proportionally changed, keeping the proportions established by the original metronomization.

Another useful exercise is to compare the musical content of those works or movements assigned with the same metronomic markings by a particular composer. As an example of this methodology, take the first eight symphonies of Beethoven, which were metronomized together in 1817. Magnitude *84* appears in five out of eight:

Figure	**Symphony**	**Movement**	**Name**
	2th	1°	*Adagio*
	4th	2°	*Adagio*
	5th	4°	*Allegro*
	7th	3°	*Assai meno presto*
	8th	4°	*Allegro vivace*

Under this approach, the performer should feel comfortable with using the same metronomic frequency in all five movements or sections sharing it. It is not necessary that this frequency is exactly 84 beats per minute, which is what Beethoven suggests: following Swarowsky, we know it can be a little higher or lower. What really matters is the identity for the five musical contents.

In short: the metronomic quantization of *tempo* made by a composer is a *non-binding* element which must be considered by the performer: not to be strictly observed but rather not to distort it. Just as in the arts of space, the beauty and proportion of a musical work can be fully appreciated only if they occur on a scale ranging between certain marking limits, determined by the content of the work itself. In the case of the musical work, if the scale is too small (*tempo* too fast), details are lost; if the scale is too large (*tempo* too slow), details overwhelm and overshadow the whole work. Therefore, we can metaphorically deduce that *tempo* is to the realization of the score of a musical work, what a scale is to the realization of a drawing in space work.

Proportion

Returning to the second principle enunciated by Swarowsky, the aspect of *tempo* that has to be considered with the utmost rigor is the proportion among the different *tempi* of the work. The concern for measurable and proportional music gave birth to one of the Middle Age's theoretical approaches with greater repercussions to this day. Franco of Cologne's *Ars cantus mensurabilis* (c. 1260) is, apparently, the oldest known theoretical systematization of some of the practices derived from plainchant in use at the time. Thus, the author suggested in the Preface:

> Let us not say that we began this work out of arrogance or merely for our own convenience; but rather out of evident necessity for the ready apprehension of our auditors and the most perfect instruction of all writers of measurable music.

It was a time when concern for measure and proportion was focused on the microcosm of *figures* of various lengths with which music was written. Since the widespread adoption of proportional notation the evolution possibilities in Western music grew exponentially. The counterpoint, the treatment of dissonance, the coordinated execution of instrumental ensembles, the design of rhythmic motifs, the augmentation, the diminution, the variation, certain development procedures and a considerable amount of technical alternatives of musical language were possible -or, at least eased- by the use of proportional notation.

Now if we consider the extreme organicity of a true piece of musical art, is it possible that such an important principle and concept as *proportionality* could be confined solely to the microcosm of musical notation figures without targeting higher levels as well, as for instance, the structure of formal units of a work and the temporal relationships between them? The conviction that proportionality should be projected to the temporal dimensions of music has spawned a line of interpretation which advocates for the search of proportional interrelation of a work's *temp* . Swarowsky taught:

> There are no cases in Classicism, within the same movement, where speed changes that are not *clearly related* occur ("proportia dupla, tripla, quadrupla", etc.). Changes in *tempo* within a movement occur then, in direct relation (i.e., eighth note = quarter note, or eighth note = half note, etc.) or indirect relation (e.g. quarter note = dotted half), etc.

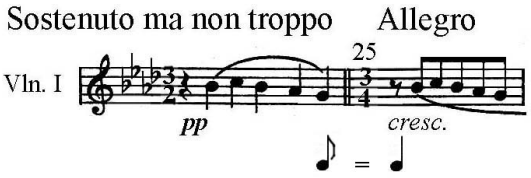
This idea, which is suitable for application mainly in *tempo* relations among slow introductions and the *allegri* of overtures or first symphony movements of Haydn, Mozart and other contemporaneous composers; can also be applied to govern temporal relations among the movements of suites or symphonies.

As an example, let us consider Mozart's *Symphony Nº 36 in C major, K. 425 "Linz"*. By analyzing the musical content, the following approximate relations for determining *tempi* can be established:

♪ of the slow introduction (*Adagio*), is equal to
𝅗𝅥 of the next *Allegro spiritoso*, is equal to
♪ of the 2º movement *Poco Adagio*, is equal to
♩ of the 3º movement *Menuetto*, and is equal to
𝅗𝅥 of the 4º movement *Presto*.

According to the metronomic markings recorded by himself, Beethoven seems to have broken with this tradition of clearly and directly related *tempi*, both in the relation between the Introduction and *Allegro* of the symphonies which start with a slow introduction (*First, Second, Fourth and Seventh*) and, with a few exceptions, in the relation between the first and other movements. However, the principle seems to find rigorous application in his overtures with slow introduction, for example in *Egmont*, which does not include metronomic markings and where the motif link is obvious, suggesting the following ratio:

Example 2. Beethoven, *Egmont overture Op 84*, cc. 24-25



Is the composer always right?

In the orchestral repertoire there are cases in which the author's metronomic prescriptions are unconvincing, contradictory or seem downright wrong. Now, among many others, let us consider three cases of composers and paradigmatic works: Beethoven's *Ninth Symphony*, Debussy's *Prélude à "L'après-midi d'un faune"* and Stravinsky's *Petrouchka* (1947 version).

In the seventh variation of the *Ninth's* 4º movement, *Alla Marcia* (Tenor solo and male chorus, cc. 331 and ss.), Beethoven indicates *Allegro assai vivace* 𝅗𝅥. = 84. Let us remember that in the first movement of *Allegro ma non troppo un poco maestoso* he had prescribed ¡𝅗𝅥 = 88! Does this mean that Beethoven wanted indeed for this thriving march a slightly slower *tempo* than for initial *Allegro*? It is not convincing, in light of the literary text and the musical context. The performing experience of eminent conductors has contradicted Beethoven's metronome almost permanently. Markevitch advises 𝅗𝅥. = 112 and mentions other performances: Toscanini = 112, Furtwängler = 126; Schuricht = 126, Mengelberg = 108-112, Weingartner = 96, B. Walter = 126, Klemperer = 112...

Meanwhile, Debussy provided metronomic markings for some but not all of his works. The original score of *Prélude* did not include them. Metronomic notations were added later in some editions and were written by the composer himself in a printed copy that he used for conducting the work several times, known as the *Royaumont score*.

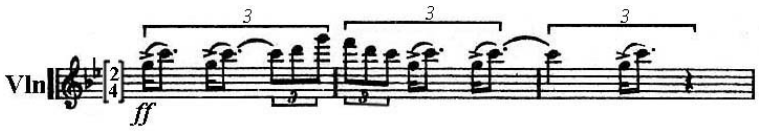
In this score, the *Très modéré* from the beginning of the work was measured in ♩. = 44 which, given the 12/8 meter signature, results in ♪ = 132. In figure 8 (bar 79) the score points out *Mouvt. du Début*, 4/4 meter signature, ♩ = 84:

Example 3. Debussy, *Prélude à "L'après-midi d'un faune*", figure 8.

Here the iconic theme of the Flute appears in augmentation, written in figures twice the length of the figures of bar 1. If Debussy's intention was that the pulse of the bar 79 was that of *Mouvt. du Début*, he should have indicated ♩ = 44, the marking of ♩. at bar 1. If, however, his intention was for the Flute solo to be *perceived* in bar 79 at the same *tempo* of bar 1, then he indication should have been ♩ = 132. Certainly, ♩ = 84 does not result in *Mouvt. du Début*. A dilemma indeed.

Finally, the score of Stravinsky's *Petrouchka* indicates at the beginning of the first part a *Vivace* movement, 3/4 meter signature, ♩ = 138, which is equal to ♪ = 276. In figure 18, it indicates *Meno mosso* ♩ = 88. This indication is repeated in figure 22, whereas in figure 23 Stravinsky changes from 3/4 to 2/4 meter signature with the *L'istesso tempo* indication, which implies that *tempo* ♩ = 88 continues, thus the whole bar equals to 𝅗𝅥 = 44. In figure 25, Stravinsky introduces –in quarter note triplets- the theme elements of the beginning of the work, according to which, if 𝅗𝅥 = 44, the ♩ triplet is equal to 44 x 3 = 132 and not 138.

Example 4. Stravinsky, *Petrouchka (1947)*, figure 25.



Therefore and to keep this relation as close to Stravinsky's intentions as possible, the metronomic markings at the beginning of *Petrouchka* should be ♩ = 132 not 138.

Application of modular relationship between different *tempi*

Let us consider now, as a methodological example, a couple of applications of modular unification of *tempi*. This is to show, step by step, an analytical alternative for the knowledge of the work, its study and the preparation the performer has to do.

Our first example is *Pictures at an exhibition* by Mussorgsky-Ravel, a paradigm of descriptive program music. First, the orchestral version of *Pictures* raises an interesting question: Who is the real author? Is it a Ravel's orchestral work *on* an original piano score by Mussorgsky? Or is it Mussorgsky's work orchestrated by Ravel? Does the fact of modifying the original timbre idea (piano) into another one (orchestra) give the orchestrator a *copyright* on other parameters of the creation, to use it at will, however exquisite it may be? Because Ravel introduces significant changes in *Pictures* and the conductor must know how to differentiate the relative importance between 1) The wonderful work of Ravel as an *orchestrator*; 2) the text changes introduced by Ravel as *composer* and 3) some indications suggested by Ravel as *performer* of Mussorgsky's work. Ravel's task as orchestrator is *sacred*: is an exemplary work of the orchestration art. But, what attitude should we take about the changes made by Ravel-composer? Without resorting to the facsimile of Mussorgsky's original, a simple comparison by taking a look at Boosey & Hawkes No. 8729 edition, including the piano score under the orchestral score, can be used for making decisions to comply with Mussorgsky's explicit intentions, not followed by Ravel. Among other possible examples, see the following:

- In No. 1 *Gnomus*, bars 2 and 10, why not restoring Mussorgsky's original *fermata*?
- In the same number, figure 18, why not restoring a quarter note, upbeat transformed in eighth by Ravel?
- In the next *Promenade* –one bar before figure 19- why not removing the *fermata* added by Ravel on the bar line that interferes with the V - I relation established at the end of *Promenade* and the beginning of *Il vecchio castello*, if the *attaca* indication from the original is observed?
- In the same No. 2 *Il vecchio castello*, why not removing one bar added by Ravel – who was apparently upset about the *irregularity* of a 5-bar phrase- before figure 22? Why not observing the upbeats duration *A flat4* in 2º bar after 21 and 2º after 25?

The cases we have explored are just a few of those in which Ravel's work exceeded the limits of orchestration, resulting in changes in the compositional aspects of the work that go beyond the pure sphere of *instrumental color*.

Moreover, one may wonder what is the level of commitment required from the conductor in face of interpretative indications that are not Mussorgsky's, but Ravel's, as for instance the highly questionable *con dolore* suggested for the saxophone solo of *Il vecchio castello* (2º bar after 20). In short, if the conductor is convinced that the changes made by Ravel on Mussorgsky's text adversely modify some stylistic peculiarities of the Russian composer -like some of his *transgressions* to the traditional quadrature- he should not hesitate to restore the original morphology. The performer's main commitment should obviously be to Mussorgsky, rather than Ravel.

The circumstances in which this *suite* was composed are well known. It was written in 1874 motivated by a posthumous exhibition of works of Victor Alexandrovich Hartmann, friend of the composer, deceased in 1873 at the age of 39. In this exhibition some architectural drawings, watercolor paintings, sketches of costumes, props and objects were displayed. Mussorgsky's indication leading the initial *Promenade* is extensive and detailed: *Allegro giusto, nel modo russico; senza allegrezza, ma poco sostenuto*.

Let us note the use of the term *senza allegrezza* (joyless), due to its expressive implications and *nel modo russico* (in the Russian way) by its character and texture. The first conceptualization, "joyless" could be triggered by the memory of the departed friend in his youth, whose exhibition was posthumous. If the *promenades* represent the walks from one picture to another, the initial *promenade*, which works as the gateway for the entire work, may represent the composer's mood when he enters the exhibition room, thus we can imagine Mussorgsky entering or making us enter the exhibition "joyless".

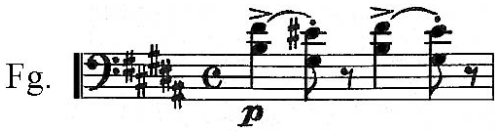
The other conceptualization, connected to "the Russian way", could refer, due to its character, modal and metric content, texture, etc., to a responsorial singing of the Russian Orthodox Church ecclesiastical repertoire. In this context, neither the *tempo* of the first *promenade* should be too fast, nor its tone too jubilant, but rather tinged with a certain severity. The *tempo* of the initial *Promenade* is naturally projected –with small adjustments of tone, dynamics and articulation- to the other three *promenades* included in the work and its influence further extended both to the second part of No. 8 (*Cum mortuis in lingua mortua*) and to No. 10 (*La grande porte de Kiev*), fragments in which Mussorgsky uses motivic materials derived from the *promenades*.

About *Il vecchio castello* (No. 2 of the *Suite*), Igor Markevitch used to tell his students *"c'est une serenade, pas un berceuse"* ("it is a serenade, not a lullaby"). Let us add: an Italian serenade for that matter, sung by an Italian folk singer, as can be inferred from the picture title written *in italian*. Topic recurrences seem to suggest that we are in the presence of a *stornello* (apparent idiomatic misuse of *ritornello*). Giannandrea Mazzuca, responsible for the *Stornello* entry in the old Grove's, illustrates his article with an example taken from Tigris's *Canto popolare toscano* (Florence, 1869), whose text could not be more appropriate for a troubadour's serenade, as would be referred by Hartmann's picture:

Every night you come to me in my dreams;
Tell me, my beauty, why do you do it?
And who comes to you when you sleep?

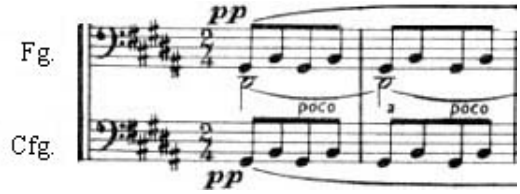
Tuileries (No. 3 of the *Suite*) has an *Allegretto non troppo, capriccioso* indication. It is an *allegretto*, not an *allegro* and if that were not enough, *non troppo*. A literal translation of this indication projects a suitable image: "not to cheerful, whimsical". The children painted by Hartmann playing at the *Tuileries* must have been inhabitants of that *popoloso deserto che appellano Parigi* during quite a repressive time for childhood, where diseases ravaged; Paris was possibly undergoing prefect Haussmann's public and sanitation works (1853-1870) and was certainly, far from the lights of the Universal Exposition of 1889, the *Tour Eiffel* and the *art nouveau* and even farther from vaccines, synthetic vitamins and antibiotics. It is possible then to imagine them as somewhat weak and *sad* children, playing without doing much noise. This image also has a musical correlate: the ground bass (*ostinato*) of the *Tuileries* (descending minor 3rd. *B-G#*):

Example 5a. Mussorgsky-Ravel, *Pictures at an exhibition*, No. 3 "Tuileries", c. 1, Bassoons.



is immediately transmuted, by inversion, into the *ostinato G#-B* of the *Bydlo* bass (No. 4 of the *Suite*):

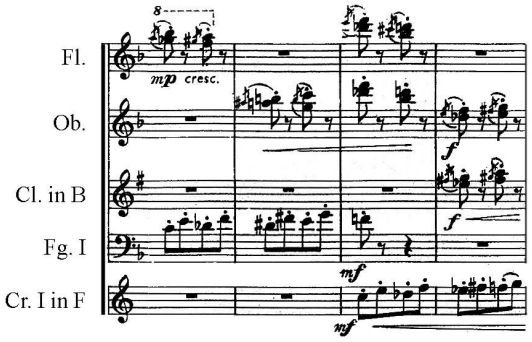
Example 5b. *Ibid.*, No. 4, "Bydlo", cc. 1-2, Bassoons and Contrabassoons.



Thus, both numbers would be motivically identified, revealing a possible, perhaps unconscious, association between Parisian children and the oxen yoked to the *Bydlo* cart.

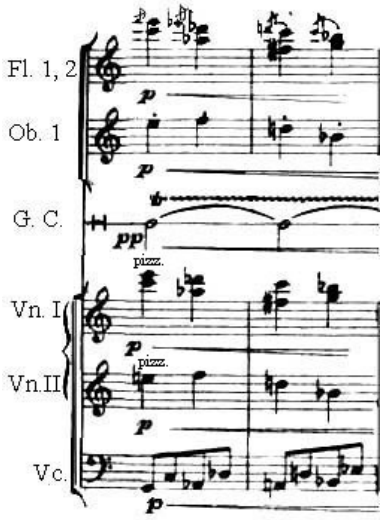
The same occurs between the No. 5 (*Ballet des poussins dans leurs coques*, which is inspired by a costume design of dubious taste, possibly for children's ballet) and No. 9 (*La cabane sur des pattes de poule*):

Example 6a. *Ibid.*, No. 5, "Ballet des poussins dans leur cocques". cc. 17-20, wind instruments.



Apart from the *genetic* identification of the presumed *ballet* chicks (*poussins*) with the chicken (*poule*) of *Baba Yaga*, there is a motivic identification between the ascending thirds deployed as counterpoint bass of the descending harmonic thirds with *acciaccature* in the upper voices of the chicks (No. 5, figure 51 et seq. of Ravel's score) and the ascending fourths and descending chords, also with *acciaccature* of the mythical chicken (No. 9 figure 82 et seq.). Through motif-handling, sweet children-chicks become the monstrous hen whose legs support the cottage-cabin of the Baba-Yaga witch.

Example 6b. *Ibid.*, No. 9, "La cabane sur des pattes de poule", cc. 25-26.



Deux juifs polonais, l'un riche et l'autre pauvre,[5] refers to a picture which, according to the exhibition catalog, would have belonged to Mussorgsky and is currently missing. This picture relates to a number of motifs drawn and painted by Hartmann in the *ghetto* of the Polish city of Sadomir. The characters portrayed by Mussorgsky in that picture, unify their *tempi* -each character with its own features- as their motifs overlap (2° bar after figure 60 and et seq. in Ravel's score).

With regard to No. 7 (*Limoges - Le marché*), is an *Allegretto* not a tumultuous *Vivo, sempre scherzando Allegro*, but *Allegretto* in the end.

Finally, the motivic material of No. 10 (*La grande porte de Kiev*), is directly related to the initial *Promenade*, both for the utilization of its theme (figure 112 et seq. of Ravel's score) and the use of the melodic cell *G5-Bflat5-F5*[6] that can be found, within the same register, in bars 18, 20 and 21 of the first *Promenade*, and 5, 7, 26, 28 and analogues of the *La grande porte*.

By admitting the deviations required for the adaptation to the expressive content of the *suite* numbers, the following unifying proportion pattern of the *tempi* of *Pictures* can be established:

- ♩ of the initial *Promenade*

= 𝅗𝅥. of No. 1 (*Gnomus*, figure 6 of Ravel's version) = 𝅗𝅥 of *Poco meno mosso, pesante*, figure 11)

= ♩ of the second *Promenade*

= ♩. of No. 2 (*Il vecchio castello*)

= ♩ of the third *Promenade*

= ♩ of No. 3 (*Tuileries*)

= ♪ of No. 4 (*Bydlo*)

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5 Mussorgsky's manuscript is entitled *No. 6, "Samuel Goldenberg und Schmuyle"*

6 This cell is a transposed retrogression of C5-F5-D5 found in bar 1 of the initial *Promenade*.

= ♩ of the fourth *Promenade*

= 𝅗𝅥 of No. 5 (*Ballet des poussins dans leur coques*)

= ♪ of No. 6 (*Samuel Goldenberg und Schmuyle*)

= ♩ of No. 7 (*Limoges - Le marché*)

= ♪ of the first part of No. 8 (*Catacombæ - Sepulchrum Romanum*) = ♩ of the second part (*Cum mortuis in lingua mortua*)

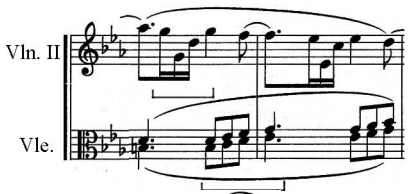
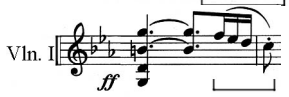
= 𝅗𝅥 of the first part of No. 9 (*La cabane sur des pattes de poule*) = ♩ of the second part (*Andante mosso*, figure 90 of Ravel's version)

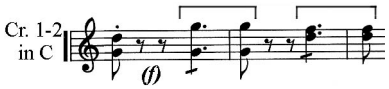
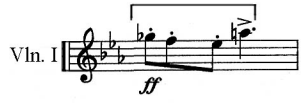
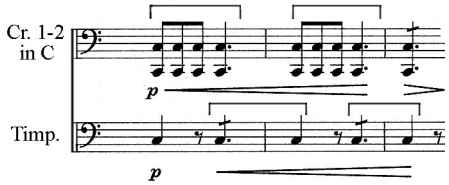
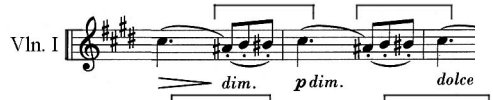
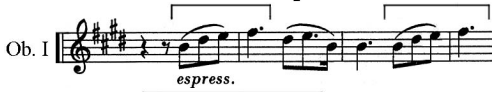
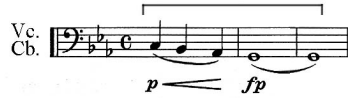
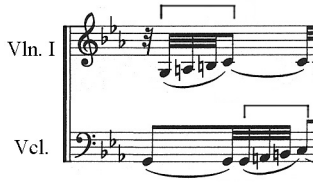
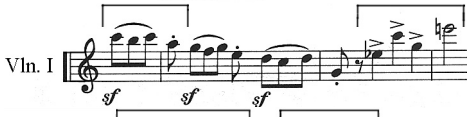
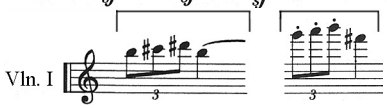
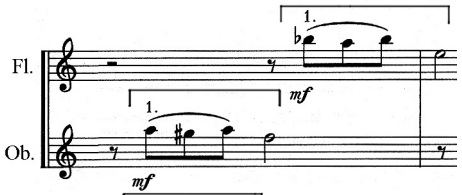
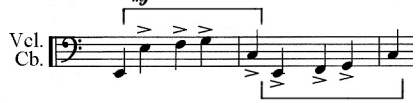
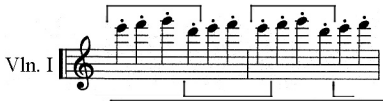
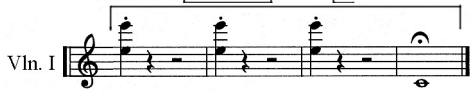
= 𝅗𝅥 of the first part of No. 10 = 𝅝 of the second part (*Meno mosso sempre maestoso*, figure 115 of Ravel's version)

Thus, the *Suite* is structured by a unifying module that is manifested in the different *tempi* corresponding to each of its parts.

The second work to be discussed is an example of pure, autonomous or absolute music, without extra-genre references. It is Brahms' *First Symphony*, *Op 68*. No exhaustive analysis will be made, only those aspects that serve as the basis for making decisions regarding the proportionality and metronomic quantization of *tempo* will be identified.

This symphony has quite often been referred to as *the Tenth*, alluding to the continuation of a German symphonic tradition following the landmark of Beethoven's *Ninth*. In fact, Brahms fails to go *beyond* the Beethovian *Ninth* but, instead, remains *halfway*; this is said without any detriment to the Brahmsian creation, which stands on its own merits, with no need to be -unfairly- compared to any Beethovian example. But if there is a Beethoven symphony whose influence can be perceived in Brahms *First*, indeed, is the *Fifth*. Not only because of the *C minor-major* key but also due to the omnipresence of the rhythmic cell È È È ¾, true *hallmark* of Beethoven's *Fifth* and vastly included by Brahms in various metric contexts of his *First symphony*. Among others, here are some of the most obvious occurrences of that rhythmic cell:

Mov.	Bars	Example	
I	5-6	1	
	41	2	

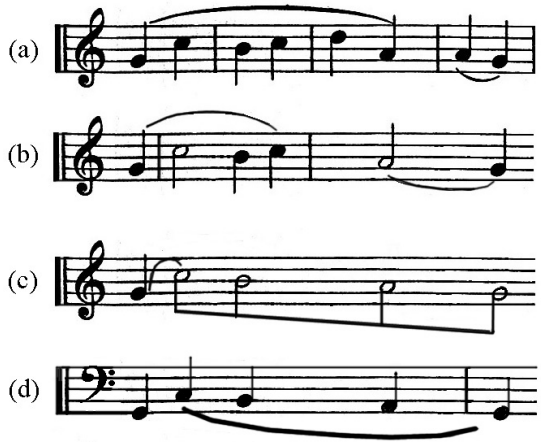
	46-48[7]	3	
	161	4	
	495-496	5	
II	9-11	6	
	17-20	7	
IV	1-3	8	
	22	9	
	95-98	10	
	170 y 174	11	
	243-244	12	
	385-397	13	
	427-428	14	
	454-457	15	

[7] This passage includes the most explicit quote from Beethoven's *Fifth*, particularly from its 3rd movement. Given the notes involved (especially the *G*) and timbre (French horns), it cannot be an *innocent* reference, let alone for a composer with the knowledge of Beethoven's work as Johannes Brahms.

This last image is probably the most impressive, because it is a sort of majestic signature of the symphony. Brahms hides in the last four bars not only the rhythmic cell È È È ¾, this time largely augmented (È = 1 bar), but also the melodic sounds *E - E - E - C* (in Flute I, Oboe I, Trombone I and Violins I), by lengthening the *G* through terminal *fermata*. Obviously, these sounds are a transposition of the famous descending major third which serves as the gateway to Beethoven's *Fifth*: *G - G - G – Eflat*.

In addition to the mentioned rhythmic-melodic elements, there are some thematic relations between both symphonies that are worth mentioning, like those that link some elements from the first movement of Beethoven's symphony with other elements from the fourth movement of Brahms':

Example 7. (a) Beethoven*, Fifth Symphony, Op 67*, First movement, cc. 307-310; (b) Brahms, *First Symphony, Op 68*, Fourth movement, cc. 63-64; (c) descending fourth-progression connecting both themes (Schenker 1971:180-181); (d) *basso ostinato* of Second Thematic Group (Brahms, *ibid.*, cc. 118 et seq.)



The attentive reader may argue that the *meaning* of the note B4 is different in a) and b) *passing note* in Beethoven (prolonged by filled in consonant leap to D5) and *appoggiatura* in Brahms, prolonging the C5. But yet the melodic similarity still exists and becomes especially apparent in Example 6 d).

Finally, the fourth movement in both symphonies ends with a triumphant epilogue, to which we reach through an *accellerando* built on the thematic motifs of the movement. The epilogue itself, in both cases, presents the main theme of the movement diminished, rigorous in Beethoven and more flexible in Brahms, who also switches the descending third C-A (see Example 6 b) by an ascending sixth major.

Where to begin?

There is no set rule regarding where we should start searching for a module, which allows us to distinguish a *tempo* that, through proportionality, can unify all the movements and parts of a work. An inquiry must be made everywhere, examining carefully all motifs,

the relations between them, the technical difficulties of execution -for example, striking the strings, articulation or breathing capacity of wind instruments- in order to define the different *tempi* more precisely.

In the case of a symphony, the first movement is *often* -not necessarily *always*- taken as the starting point. Secondly, the last movement, where due to the usual brightness of its *finale*, the most difficult passages are found, from a technical point of view. Ultimately the central movements. We shall do that in the case of Brahms' *First*, as a concise procedure example.

The first movement has three basic *tempi*:

cc. 1-37	Introduction	*Un poco sostenuto*
cc. 38-494	Main part, in sonata form	*Allegro*
cc. 495-511	Epilogue	*Meno Allegro*

Let us remember Swarovsky's quote in that within the same movement, the beat is *one* and it is proportionally applied to the different *tempi*. In the case of the first movement of Brahms's *First*, it would be:

- ♪ of *Un poco sostenuto* (= 1 *beat*) is equal to ♩. of *Allegro* (= 1 *beat*: *ratio* 1:3)
- ♩ of *Allegro* (= 1 *beat*) is equal to ♪ of *Meno Allegro* (= 1/2 *beat*: *ratio* 1:0,5)

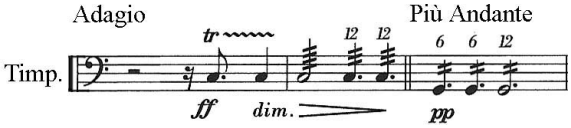
Let us now examine the fourth movement. We find four basic *tempi* indications:

Bars	**Form**	***Tempo***
1-29	Introduction (a)	*Adagio*
30-61	Introduction (b)	*Più Andante*
62-390	Movement in modified sonata form	*Allegro non troppo, ma con brio* (with occasional labels of *animato* and *largamente*)
391-457	Epilogue	*Più Allegro*

According to the well-known principle and the current context, it would be:

- ♪ of *Adagio* (= 1/2 *beat*) equals to ♩ of *Più Andante* (= 1 *beat*: *ratio* 1:2). This relation is clearly established by the note in the Timpani part: double triplet per eighth of bar 29 becomes double triplet per quarter in bar 30: the performer continues to play *with the same striking rate per beat unit:*

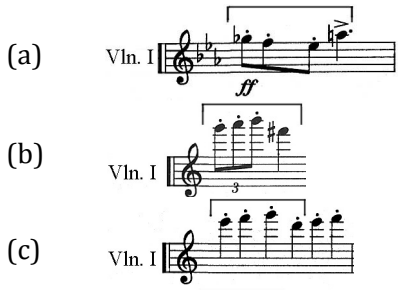
Example 8. Brahms, *First symphony, Op 68*, fourth movement, cc. 28-30.



- ♩ of *Più Andante* (= 1 *beat*) is equal to 𝅗𝅥 of *Allegro non troppo ma con brio* (= 2 *beat*: *ratio* 1:2)
- ♩ of *Allegro non troppo ma con brio* (= 1 *beat*) is equal to 𝅗𝅥 of *Più Allegro* (= 1 *beat*: *ratio* 1:2)

As a result of the analysis, it follows that the highest motivic affinities are between first and fourth movements. Thus we may verify that a prominent motif of the Second Thematic Group of the first movement (c. 161, Violins) is switched, becoming part of the Second Thematic Group of the fourth movement (c. 174, Violins) and this inversion, slightly ornamented, is part of the thematic material of this movement's Epilogue (c. 427, Violins and Violas).[8]

Example 9. Brahms, *op.cit.*, (a) first mov., c. 161; (b) fourth mov. c. 174; (c) fourth mov., c. 427.



Therefore, we decide on the pulse identity between these three basic *tempi*, which results in:

♩. of *Allegro* of the first movement = ♩ of *Allegro non troppo, ma con brio* of the fourth movement = 𝅗𝅥 of final *Più Allegro* of the fourth movement.

It is possible to extend the search to the remaining two movements, a task that may eventually be performed by the reader himself. The principal idea of the method has already been detailed.

Reference should be made now to possible metronomic quantization for a version of Brahms' *Symphony Nº 1 Op 68*, with its basic modular unified *tempi*. Here, we go one step further in the field of hypothetical appraisal; however, the proposal here drawn up

[8] This motif also appears in the *Trio* of Brahms' third movement, at the end of the corrugated wood design [cc. 74-75] and by dangerously extending the meaning of the discovery to almost fit the needs of the analyst, it could be suggested that it appears, in free retrograde inversion, in the second movement [c. 9, Violins I].

derives from a higher premise. If, as has been pointed out, the most perceptible Beethovenian influence in this symphony could come from the *Fifth*, is it unfounded to assume that some of the metronomic scales where Beethoven placed the rhythmic cell that gave origin to his *Fifth Symphony* could determine the use of such cell by Brahms in his *Symphony in C minor*? We could consider, specifically, the irruption of the French horns in the third movement of the *Fifth*:[9] is it not that version of the Beethovenian motif, appearing mainly in French horns, Trumpets and Timpani, what pervades much of the development of the first Brahmsian movement (cc. 229-329)? Beethoven prescribes for his third movement a pulse of M.M. 𝅗𝅥. = 96: according to the stated hypothesis, an approximate marking to the above could be applied to Brahms' *First*, according to the following chart:

Mov.	Section	Pulse	M.M.
1	*Un poco sostenuto*	𝅘𝅥𝅯	96
	Allegro	𝅗𝅥.	96
	Meno Allegro	𝅗𝅥.	48
2	*Andante sostenuto*	𝅗𝅥	48
3	*Un poco Allegretto e grazioso*	𝅗𝅥	64
	Trio	𝅗𝅥.	64
4	*Adagio*	𝅘𝅥𝅯	48
	Più Andante	𝅗𝅥	48
	Allegro non troppo ma con brio	𝅗𝅥	96
	Più Allegro	𝅗𝅥	96

In short: we have considered two musical works with different characteristics. Mussorgsky's *Pictures* as an example of program music, with an unavoidable extra musical meaning; Brahms' *First*, as an archetype of pure music, lacking implicit extrageneric meaning. In both cases we have come to establish a system of proportionally interrelated *tempi* based on the analysis of possible meanings, purely musical or non-musical. In the case of Brahms, without neglecting a possible influence of Beethoven's *Fifth,* probably a purely musical reference. In *Pictures*, there is an inevitable reference to the program that inspires it.

The brief course followed by both works can illustrate how at least two levels of Nattiez can be integrated in the interpretation: the score's *neutral* and the *poietic* level (what we know or elaborate *around* a score). All this is an attempt to show consistency in determining *tempi* in a respectful interpretation of the content of a musical work. The performer can set the scale of the *tempi* in a slightly faster or slower level. What *should not be* ignored is the interrelation between the parts. The absurd and intrinsically authoritarian statement "That's how I feel it is" to justify a whim or arbitrariness in the choice of tempo, cannot, must not, be an excuse for ignorance, frivolity or intellectual laziness of the performer.

[9] cc. 19 and successive.

Situations that affect *tempo*

The interpretation of *diminuendo* is mainly related to the dynamics even if, in certain contexts, the term seems to have been used -especially among Romantic composers- to affect *tempo* as well.

In the old *Lavignac's Enciclopedia* it can be read:

> The hairpin is a sign of strength corresponding to the words *crescendo*, *decrescendo* or *diminuendo*. This symbol  corresponds to *crescendo* and means a gradual *increase* in the power [volume] of sounds. Conversely,  corresponds to *decrescendo* or *diminuendo* and means a gradual *diminishing* of the tone under which is placed.

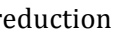
David Fallows, on his part, in the pertaining voice of the New Grove's, states the following:

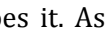
> **Diminuendo** (It. of *diminuire*: 'diminish [reduce],' 'becoming softer [soft]'). Instruction for execution, sometimes abbreviated *dim.* and sometimes expressed by a 'hairpin'... *Decrescendo* [of *decrescere*: 'reduce,' 'decrease'], sometimes abbreviated *decresc.* is virtually a synonym, but *diminuendo* is sometimes preferred because it is more positive.

Both sources establish a virtual synonymy between *diminuendo* and *decrescendo*, defining the interpretation of the sign as the progressive reduction of the sound volume. Moreover, it is certainly commonplace, among instructors of musical performance, opposing the usually harmful trend of accelerating during the *crescendi* and, conversely, slowing down through *diminuendi.*

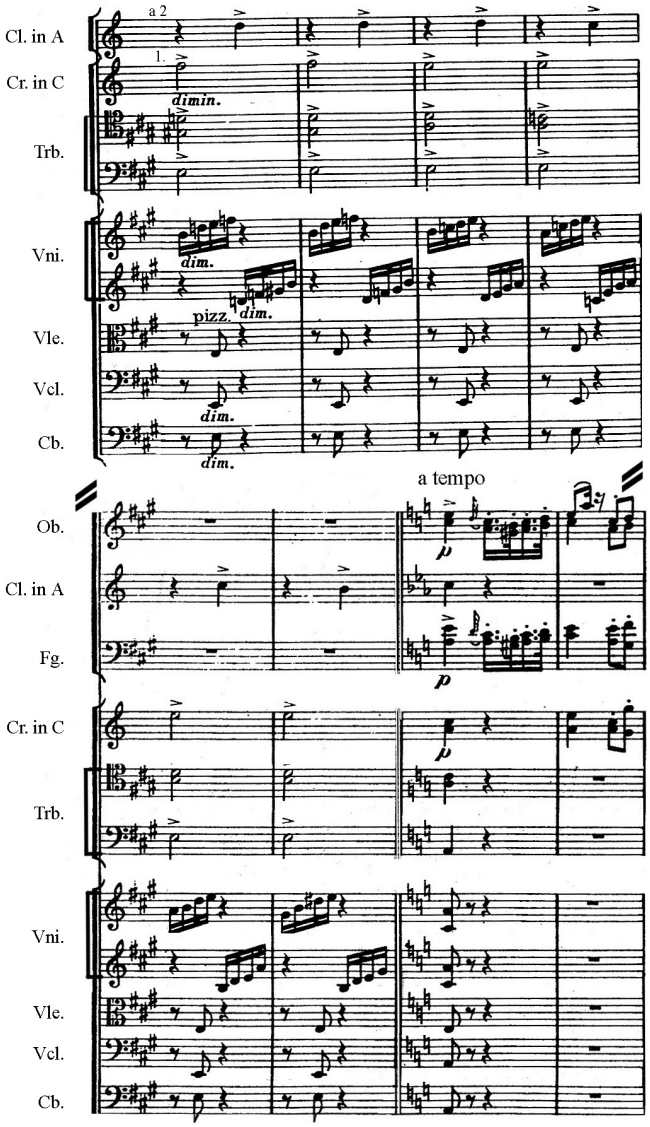
However, Swarowsky duly warned about another possible connotation of the term *diminuendo*:

> Here we should say a few important things about "diminuendo" in Schubert. Romanticism preferably uses this concept as a general decline related to dynamics and movement. Schubert associates "decrescendo" only with a decrease in power and not movement. Although his careless way of writing shows little concern for the differentiation of concepts, "diminuendo" means to him a reduction in the degree of power and speed. The regular presence of "*a tempo*" following "diminuendo" in Lieder and other works is a definite proof of that. Moreover, the placement of the word "decrescendo" is a clear sign that the Maestro preferred no "*tempo*" retention there. Sometimes in Beethoven these expressions also appear in this sense. Good taste must decide. Again, the work's right discourse should be recognized.

From the quoted paragraph, it follows that out of the three signs commonly used to indicate the progressive reduction of sound volume, i.e. 1) the hairpin  , 2) the word *decrescendo (decresc.)* and 3) the word *diminuendo (dim.)*, the latter can simultaneously connote the reduction of sound volume and *tempo* as well, depending on the context. This would be equivalent to the terms *calando, morendo or smorzando*. Not so the hairpin and the term *decrescendo (decresc.),* which would *only* affect the parameter of the sound volume.

Faced with this possibility, the performer must first check the text to see how many and which are the signs used by the composer to indicate a decrease in sound volume and where he does it. As mentioned, the hairpins () and the terms *cresc.* and *decresc.* would not normally lead to interpretation issues, since they are unambiguous and relate only to the dynamics. The question arises when, in addition to the hairpins and the term *decrescendo (decresc.),* the composer uses the word *diminuendo* (or its abbreviation *dim.*) in other parts of the same score. See for example what happens in the second movement *(Andante con moto)* of Schubert's *Great Symphony in C major*. In this movement the composer uses all three signs: for example, *decresc*. in bar 13, the hairpin  in bar 376, *dim.* in bar 147, etc. However, there is one point that clears all doubts: after two consecutive uses of the term *dim.* in bars 319-320 and 323-325, the *a tempo* indication appears in bar 330. This indication means that Schubert used *dim.* to point out a reduction in tempo *too*, besides the usual dynamic reduction denoted by the term.

Example 10. Schubert's *Great Symphony in C major,* second mov., cc. 324-331.



In order to move towards an interpretative hypothesis on the composer's intention, it is essential to analyze the context in which Schubert introduces the term *dim.* The movement is formally organized into an Introduction, two parts and a Coda. Each part, in turn, is divided into two broad sections. There are also transitions and re-transitions. This is, broadly speaking, a continuous compound binary form, as shown below:

Bars	**Form**	**Harmony**
001-007	Introduction	*A minor* I
008-088	Part 1, Section A1	I
089-092	Transition	I ® VI
093-145	Part 1, Section B1	VI
145-160	Re-transition	VI ® I
160-250	Part 2, Section A2	I
251-267	Transition	I ® *A major* I
267-319	Part 2, Section B2	*A major* I

319-330	Transition	I ® *A minor* I
330-380	Coda	I

The term *diminuendo* (*dim.*) appears in bars 147, 151-152; 319-320, 323-325; 376. As can be seen, the *diminuendi* appear in:

- Re-transition from Part 1 to Part 2
- Transition from Part 2 to Coda
- Final bars of the Coda

In other words, the word *diminuendo* with the meaning *decrescendo + rallentando* affects only three passages: two with transitive function and the third with conclusive function. One possible inference is that Schubert had saved this peculiar use of the term *diminuendo* to highlight vital formal articulations[10]. Consequently, in the first two passages, with transitive function, the effect of *decrescendo + rallentando* would automatically be cancelled when Part 2 (c. 160) and Coda (c. 330) begin. In the latter case, Schubert explains the cease effect through *a tempo* indication placed at bar 330; in the previous case, there is no explicit *a tempo* indication, but it can be inferred from the morphological context.

In the first case (cc. 147 - 159), the fragment corresponds to a moment of harmonic redirection from the Submediant region (VI) to the Tonic (I), via the Mediant (III) (cc. 148-151) and a chromatic ascent in the bass from here (c. 150) to the Neapolitan 6th (c. 157) and from there to the Dominant (V) (cc. 158-159). The harmonic destination is only defined in the last three bars. Until then, the uncertainty caused by the succession of contrapuntal chords, the chromatics and the obstinate presence of pedal *G4* in the French horns turns the passage into an example of what Schönberg used to call *roving harmony*: the *decrescendo* + *rallentando* emphasizes the uncertainty of the harmonic flow without predictable destination.

The second case (cc. 319 - 330) is different: it is a harmonic progression within the tonic region, featuring a long prolongation of the Dominant (cc. 324-329), on which the following conduction of voices is developed:

9----8----------
7----------6----5------
3----4----------3

In this second case, the combination of *decrescendo + rallentando* tends to increase the tension caused by the extensive Dominant: the *a tempo* must solve this.

Finally, the third case (c. 376) is the most obvious: the *dim.* lengthens and extinguishes the final Tonic of the movement. It is a highly generalized interpretative mannerism, even in scores where there is no specific prescription for the application of such action by a composer. This commonplace possibly responds to the desire of

[10] Much of the *arbitrariness* in terms of *tempo* that Wilhelm Furtwängler was once criticized for, occur in significant points of morphological articulation and generally relate to the interpretation of the term *diminuendo* indicated herein.

emphasizing the feeling of rest which follows the resolution of tensions in the main tonic, at the end of a work or movement.

The study and analysis of nineteenth-century works after Beethoven seem to show that the terms *dolce* and *espressivo* could have opposing meanings in relation to *tempo* and in certain contexts.

dolce denotes "sweetness" but could also connote fluidity of speech, lack of dynamic and/or expressive volume.

espressívo denotes "expression" (*pressing out*), but could also connote intensity of enunciation and may retain *tempo.*

Considering some of Beethoven's works, such as piano sonatas and quartets, -especially those from the so-called *third period-,* strong evidence can be found according to which the term *espressivo* could connote a change in *tempo.* For example, in the first movement of the Piano Sonata No. 30 Op 109, the thematic opposition between initial *Vivace, ma non troppo* -marked ***p*** *dolce* (bar 1-8)- and the following *Adagio espressivo* (bar 9 and et seq.) seems emphasized by the use of both adjectives. Even more applicable is the situation found in the second movement of the same sonata, bars 29-33: here the *un poco espressivo* indication is followed by an *a tempo* and between bars 120-124 the same situation occurs with the terms ***p*** *espressivo* and then *a tempo*.

At the same time, in other Beethoven's works, *espressivo* is accompanied by explicit indications that affect *tempo*, for example:

Work	**Movement**	**Bars**	**Comments**
Piano sonata No. 32, Op 111	1°	34-35 98-99	The term *espressivo* is accompanied by *ritenente*
Quartet No. 14 Op 131	7°		The *espress.* indication appears no less than eight times, invariably accompanied by *poco rit.*
Quartet No. 15 Op 132	4°	30	*espress.* at the same time as *ritard.*

At the same time, it should be noted that towards the late nineteenth century certain situations began to emerge in which *dolce* and *espressivo* were not ostensibly opposed, as shown in the indication *doux et espressif* of Example 3 (Debussy's *Prélude à "L'après-midi d'un faune"*). A detailed study of orchestral repertoire to clarify this question goes beyond the content of this work. The above should alert the reader about the fact that alleged meanings of certain terminology require a contextual consideration before deciding its impact on performance.

Dynamics

It should also be noted, in relation to dynamic markings in particular, that in the works of our masters [...] far from suggesting purely dynamic conditions, they also play a completely unique role in relation to the synthesis, that is, the form.

Heinrich Schenker

In general terms, the consideration of dynamics as a constituent part of the musical form forces the performer to

5. Verify conclusively how many distinct dynamic levels are explicitly expressed in a score, since various composers use different scales. This finding can locate the presence of *climax* and *anticlimax* of a work or movement: the conductor may carefully graduate forces, in order to properly build dynamic increasing and decreasing curves. This decision is easy when a composer is as thorough in establishing the dynamics as Tchaikovsky is, who, for example, in the first movement of *Symphony No. 6 Op 74, "Pathetique"* specifies *twelve* levels between ***pppppp*** (c. 160) and ***ffff*** (c. 299). In such a case the performer has an efficient guide not to push hard every ***ff*** or, conversely, to reach the almost inaudible in each ***pp***. But on the other hand, the interpretative task becomes complicated due to the moderation of composers like Mozart or Beethoven, who used almost always only four levels (***p - p - f - ff***) [11].
6. Always keep in mind that dynamics is inseparable from the form and compositional procedures used. Exceptional dynamics are correlated with significant morphological locations or the presence of resources or exceptional compositional strategies. It involves the culminations of developments, transitions, preparation of real harmonic, contrapuntal or timbre *surprises*. The performer must be alert and ready to examine the text deeply and carefully, trying to find a reason that supports the emergence of an exceptional dynamic level. If the performer decides to apply exceptional dynamic resources on his own, either by lack of gradations in the score or otherwise, he must find in the text a morphological or compositional procedure element which justifies the use of such exceptional dynamics, or either intermediate gradations among those explicitly prescribed by the composer. Toscanini is attributed to have said that the difficulty in Mozart lies in knowing what to do between the *piano* here and the *forte* that is 40 bars ahead. A thorough investigation to the text can give many answers about *what to do* in the middle...

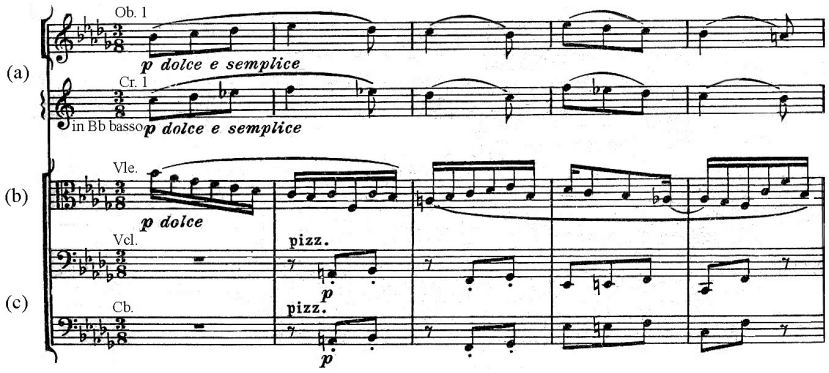
A practical guide for the performer can be considering that both the minimum and the maximum level determined by each composer are limited and conditioned by the possible responses of different instruments. For example, a trumpeter playing at the peak of his physical capabilities and the acoustic possibilities of his instrument finds perfectly irrelevant that the composer writes 5, 6 or 10 ***ffs***. In this regard, ***ff*** in a Beethoven's symphony may be for the performer as well as ***ffff*** in a Tchaikovsky's, indeed considering

[11] The ***ff*** is exceptional in Mozart.

the differences in style and the needs for a dynamic balance between the different orchestral families.

Moreover, the conductor must distinguish between situations where the dynamic differences are determined by the orchestration itself, and those in which the differences depend exclusively on the degree of energy from the performers. Consider the following example:

Example 11. Brahms, *'St Anthony Variations' Op 56a*, Variation 4, cc. 1-5.



Note in Example 11 the presence of three elements:

(a) *cantabile* line in eighths of Oboe 1 and French horn 1 with ***p*** *dolce e semplice* indication,
(b) counterpoint of sixteenth notes in the Violas, with ***p*** *dolce* indication,
(c) *pizzicato* of Cellos and Double basses with ***p*** indication.

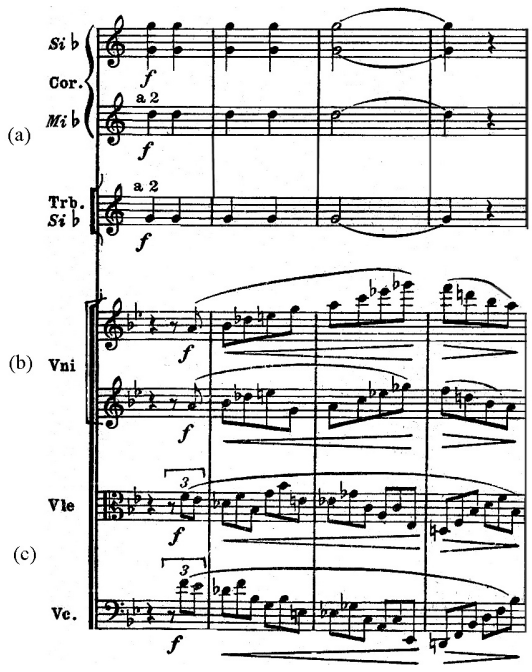
In the following bars (6-11), a similar phrase in each of the elements referred reveals the following increases in orchestration):

(a) Bassoon 1 duplicates French horn 1 in unison, Flute 1 couples to the upper eighth of Oboe 1, enabling a new high-pitched register,
(b) Cellos couple to the lower eighth of Violas, enabling a new low-pitched register,
(c) Appears in Flute 2, Oboe 2 and Bassoon 2, coupling Double basses to lower eighth of Bassoon 2, hetero phonically duplicating some notes of the Cellos.

Brahms writes *più* ***f*** indication everywhere (except Double basses). The increase in the number of instruments playing and the modification of new high and low-pitched registers will cause the *più* ***f*** phrase to be perceived, even though all the performers play *piano*: this is a perceptual phenomenon of how music is *heard*. Also, the conductor will not have to project any more energy than that because, initially, it is the orchestration -and not the conductor- the responsible for making sure that the listener hears *più* ***f***.

Compare the case illustrated by the Example 12 from the same work.

Example 12. Brahms, *'St Anthony Variations' Op 56a*, Variation 1, cc. 11-14.



In this phrase we also recognize three elements:

(a) *forte* pedal of French horns and Trumpets,

(b) ascending-descending melodic line of Violins I and II in eighth notes, with the dynamic indication ***f***  ,

(c) ascending-descending counterpoint of Violas and Cellos in eighth note triplets, with the same dynamic indication.

Here brass instruments maintain the dynamic intensity throughout the four bars, while the strings need to intensify the execution to produce the desired *cresc*. and *dim*., reaching an ***ff*** before decreasing. There are no orchestration elements to *produce* the dynamic mark and it all depends on the higher and lower energy of a single group of performers: string instrumentalists. The conductor must then increase and decrease his energy, in accordance with the requirements of the instrumentalists.

Orchestral retouching

The following was said in reference to Berlioz' *Symphonie Fantastique:*

> Nowhere a spark, no warmth, utter foolishness, contrived passion represented through every possible exaggerated orchestral means: four Tympani, two pianos for four hands, which are supposed to imitate bells, two Harps, many big drums, Violins divided into eight parts, two parts for the Double basses which play solo passages, and all these means (to which I would not object if they were being properly employed) used to express nothing but indifferent drivel, mere grunting, shouting, screaming back and forth.

Felix Mendelssohn expressed the previous statement in a letter to his mother dated March 15, 1831 in Rome. The cosmopolitan Mendelssohn, who was then 22, met Berlioz, six years older than him, in Rome, where he had the opportunity to read the manuscript of the *Symphonie Fantastique*, which was recently composed. Note that, notwithstanding the fierce criticism, Mendelssohn sincerely and warmly valued Berlioz as a human being and acknowledged the Frenchman's obstinacy to follow the dictates of his creative self, with total disregard for traditions and *rules*. Posterity has been more generous than Mendelssohn in the judgment of Berlioz creation and recognized in both composers a great skill for orchestration, each with their own style.[12] The difference between them is really a matter of *style*, not of value.

Orchestration is an important part of the composer decision-making process throughout the course of his work. Every decision reveals a value judgment and outlines a trend. The cumulative trends result in a certain orchestration style, characterized not only by the instrumental availabilities or composer preferences but also by the technical limitations of the instruments of the time.

It is commonplace to state that Schumann *did not orchestrated well*. Why? Was it because of his tendency to permanent duplications in wind instruments, the obsessive use of *tremolo* in the strings, etc.? Was he not able to orchestrate compared to whom? Was it to Mendelssohn? Berlioz? Should we not consider that maybe we are in presence of a certain sound trend, Schumann's own orchestral color? Well-known composers have dedicated many efforts to retouching their colleagues' orchestration works. This is the case of Mahler and Wagner with Beethoven and Schumann, or Rimsky-Korsakov and Borodin with Mussorgsky. If we transfer this experience to the field of fine arts can we imagine Monet retouching Van Gogh...? Ultimately, the treatment given by a composer to orchestral color is akin to the treatment given by an artist to pictorial material. Just as there are painters who, as a result of a deliberate pursuit and therefore indissoluble part of their style, cover fabrics, tables or boards with many layers until they get a thick, heavy, dense, rough texture that fits in the image, so there are composers like Schumann, that obsessively duplicate or triplicate instrumental timbres until he gets the desired color or *non color*.

[12]Remember that Berlioz wrote a Treatise on Instrumentation and Orchestration (1844), which for decades was a model of its kind and none other than Richard Strauss contributed to it with some juicy comments.

Interestingly, some of the composers whose works were most retouched have suffered mental disorders, such as Schumann and Mussorgsky (also van Gogh...). Could we be perhaps in the presence of obsessive components of creation, worthy of respect at least, if not emulation? Orchestration treatises are filled with examples of *orchestral sanity* and rightly so, because only what can somewhat be systematized, codified, can be transmitted through a teaching methodology. But the real scores do not often recognize treatises regulatory specifications. Among many possible examples, the orthodox rules prescribe not to distribute small harmonic intervals among the lowest-pitched instruments of the orchestra. Sibelius -a sane and bourgeois composer like no other- often does so and gets an unmistakable orchestral color: a color of his own. Where is, if not the *truth*, at least the *reason*?

Orchestral retouching has always been a permanent temptation. The technical evolution of instruments, which have extended and widened their registers and dynamics; the increase in the number of stringed instruments incorporated to the symphony orchestra throughout the nineteenth century; the orchestral performance in larger rooms; getting used to certain types of sounds produced by the evolution of sound reproduction techniques; all these elements and more seem to provide sufficient basis for retouching the scores. Yet it is important to note that entering the *retouching* road is attractive and dangerous but can eventually lead to extremely unpleasant results.[13]

When to retouch

One reason for retouching can be found in small discrepancies –unwanted by the composer- that arises when comparing different occurrences of the *same idea* in different passages of a composition. The passages that appear in the Exposition are shaped in a certain way, however in the Re- exposition or another recurrence they appear with small graphic differences: missing or added ornamentation, displayed or missing legatos, dots, dashes, accents and *sforzati*, dynamic discrepancies, etc. This can lead the performer to uncertainty; he has to choose either to follow exactly a *notation* of dubious consistency or give priority to a *spirit* of greater logic restoring through retouching the consistency of the original spelling.

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[13] Let the reader be referred to a personal experience. One of the top fields for retouching have always been and probably always will be the second French horns and second Trumpets, quite common in the works of composers of the mid-eighteenth century to the early nineteenth century. Known are the limitations on the amount of sounds that such instruments could produce, bounded by a series of overtones with slightest pitch changes that the tubes could produce by operating into the bell. Hence the admitted linear *inconsistency* in the notation of these instruments -the second French horns and second trumpets- that are forced to jump to the high-pitched eighth to produce certain notes that the composer wishes to add to the harmony. Once, many years ago -late 60's- I, who was inexperienced, unprejudiced and quite pretentious, conducted Beethoven's *Second Symphony* and systematically retouched the second French Horn and the second Trumpet so that they would remain in the same register, without the need to *jump* to the high-pitched eighth. Later, when I listened carefully and dispassionately to the recording of this version, I discovered that the orchestral *color* was completely changed and I was greatly alarmed and felt no little remorse. Since then, I have strongly believed that *retouching* must be handled with extreme caution: the years lived since that unfortunate experience has only increased my care and respect for the original orchestrations.

To address this issue in a practical way, we must consider:

1. the environmental conditions and the state of technology at the time when composers created their works (lack of electricity, using quills and ink for writing, etc.);
2. the extensive musical production during the quite short lives of many great composers (Mozart, Schubert, Mendelssohn, Schumann, Bizet, etc.) that exceeded their possibilities to review their own manuscripts;
3. hasty composition, sometimes conditioned by strict time limits for the execution or printing of the work;
4. the dual role of composer and performer, by which in many cases the composers themselves performed or conducted at the premieres and were thus able to correct *in voce* any graphic inadequacies in the scores, which were not reflected later in printed editions;
5. the strong presumption that such brilliant composers did not need to review what they had written in the first statement to write a recurrence or restatement: they surely had most of the details in their heads and wrote them *by heart*, therefore some graphic trifle could well have been inadvertently omitted or added at the time of re-exposing.
6. editions without the review of the composer himself.

There are no fixed rules to solve these questions, but there are some basic principles that can serve as a guide. The first is:

- *in case of discrepancy, the graphic form of the first statement of an idea should prevail over the graphic form of subsequent recurrences of the same idea.*

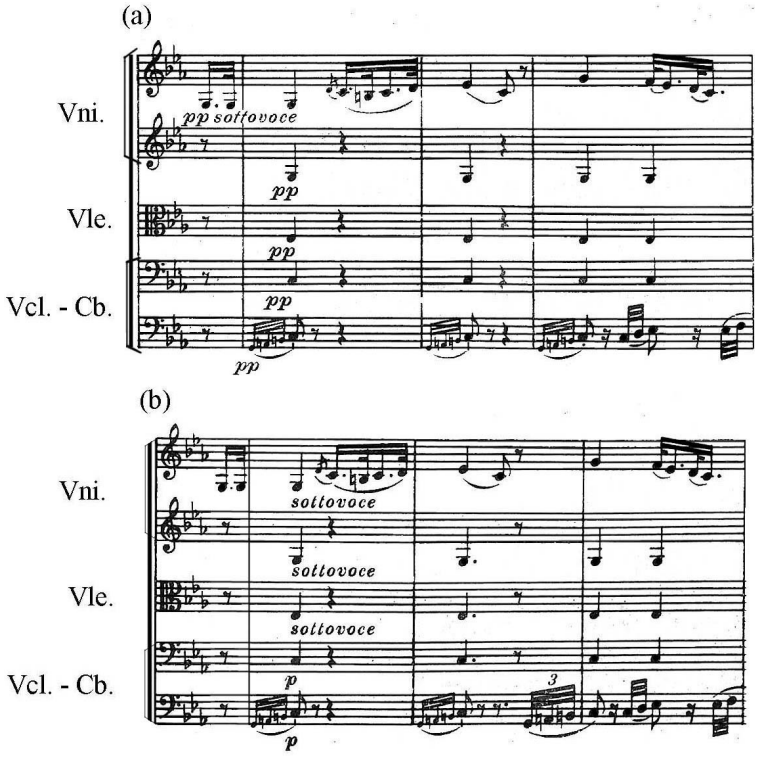
The former, by virtue of the presumption mentioned above on the use of memory in recurrences and restatements. The second principle can collide with the first:

- *the graphic form that demands greater writing effort and includes more signs, must prevail over the form that poses less work, fewer signs. More work, more signs, presuppose the desire to be more precise in the compositional work.*

The following examples are presented and discussed with the only purpose of allowing the reader to follow the line of reasoning underlying the retouching.

In the second movement of the *"Eroica" Symphony* (*Marcia Funebre - Adagio assai*) passages like the following can be found:

Example 13. Beethoven, *Third Symphony, Op 55*, second movement (a) cc. 1-3, (b) cc. 105-107 (according to Markevitch edition).



In (a) the beginning of the movement appears, while (b) shows the restatement of the initial idea. The major differences are two; the main refers to ornamental notation in the Double basses section. It may be noted that in the exposition, Beethoven wrote the small fragment of scale as ornament three times, after the bar line. However, in the re-exposition this form of writing appears only twice: the third is written in ordinary notation *before* the bar line. This difference implies a different execution: the *sul battere* ornament twice as a kind of fast diatonic *glissando* and the third as anacrusis, in the exact written duration. Therefore, the (b) form has more details; a more accurate writing and it should be included accordingly in the exposition. The second difference is that the dot on the second bar (b) lengthens the notes duration of Violins II, Violas and Cellos. The dot indicates that the accompaniment chord must continue during the C4 played by Violins I on the third beat of the bar. It is more precise, so it should also be included in the exposition. Therefore, retouching the cc. 1-3 in the form in which they appear in cc. 105-107 is justified. The different ways of expressing the dynamics is irrelevant: the expression *sottovoce* is the common denominator for both passages and determines that both must be executed ***pp***.

This standard that could be called *analogy*, justifies other well-known and already traditional retouching. Some examples:

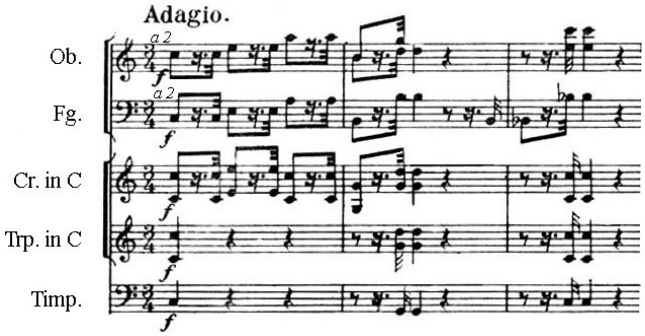
- in the slow introduction of the first movement of Beethoven's *First Symphony*, the anacrusis of four thirty-second notes at bar 13 (first bar of *Allegro con brio*) is performed with the duration of the motif of the four sixteenth notes of bars 18, 34, etc., and most notoriously, of bar 177, re-exposition anacrusis;

- in the slow introduction of the first movement of Beethoven's *Second Symphony*, the scale of Violins I of bar 33 -which leads to *Allegro con brio* and the beginning of the

exposition- should be played with the same tempo as in bar 215, where it leads to the re-exposition.

See what happens in the first three bars of Mozart's *Symphony No.36 K. 425 "Linz"*, which brings us to consider the relation between Trumpets and Timpani, so often associated in the classical repertoire.

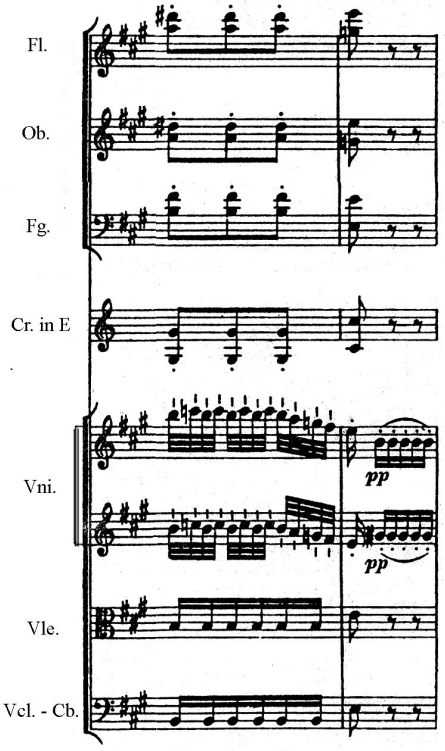
Example 14. Mozart, *Symphony No.36 K. 425*, first movement. cc. 1-3, winds and Timpani.



The first bar is a *quasi* orchestral unison. Most instruments (Oboes, Bassoons, French horns, Violins, Violas, Cellos and Double basses) have their *C* there with the duration of an eighth note. Only Trumpets and Timpani differ: they have the *C* with the duration of a quarter note. In the legendary recording of the rehearsal by Bruno Walter and the Columbia Orchestra, Walter insists on the proper execution of the quarter of Trumpets, different to the rest by the length of winds and strings. He says nothing, logically, about the striking of Timpani, which by the nature of the instrument and in spite of the score, *barely* lasts an eighth. In the second beat of the following two bars (cc. 2 and 3), all instruments -including Timpani- have an indication of a quarter that cannot be performed by the Timpani, but Trumpets may do so. All this shows that some element of notation is not working consistently. The context determines the need or, at least, the convenience of retouching. In bar 1, the duration of *tutti* without Trumpets -to, which the Timpani strike is close by nature-, must prevail and, therefore, the duration of *C* of Trumpets should be retouched, reducing it to an eighth. So, in the Timpani-Trumpet symbiosis, in that bar, the Timpani *lead*. In the following two bars, the Trumpet should play the written durations, like the rest of the string and wind instruments. This time, the Trumpet dissociates from the Timpani and joins the other wind instruments. The Timpani stresses each chord with a strike. Are we facing inaccuracies or oversights in the original script? Possibly: Mozart composed this symphony between October 30 and November 3, 1783, premiering it the next day as a conductor. Such hurry explains and justifies the presence of an occasional graphic error or slip that the conductor can -and perhaps must- rectify.

There are more reasons to seriously consider the convenient use of retouching. One is, for example, avoiding chromatic friction or false relations that occur if the written values are respected. The second movement of Beethoven's *Second Symphony* provides a suitable example in bars 115-117:

Example 15. Beethoven, *Symphony No.2 Op 36*, second mov., cc. 116-117.



Here a cadence in *E minor* is used (V minor of the main tonality *A major*):

8 --- 7
6 --- 5
4 --- 3
\ V I /
v

Wind instruments (Flutes, Oboes, Bassoons and French horns) perform at bar 116 a triple Dominant chord written in eighth notes *with round dot* above the note, resolving in the minor Tonic of the first beat of bar 117, an eighth note *without dot* above, which would literally sustain the sound of this chord throughout the duration of its value (full time in a 3/8 meter signature). The Violins II produce, from the second sixteenth note of the first beat of that bar, the sound *G#4* (major third of *E major* chord), changing the mode of the dominant chord from minor to major and causing chromatic friction directly with *G4* eighth of Oboe II, and indirectly with *G5* of Flute II. It is obvious that such chromatic frictions are foreign to the style, so retouching the notation of at least Flute II and Oboe II is necessary, thus transforming the eighth without point into an eighth with point or into a sixteenth with one sixteenth rest to complete the tempo duration. Since, as it is a good reminder, the classical theory prescribes that the round point placed above the note is called *diminution point* and shortens the value of the note by half, opposite to the *augmentation point* which is placed at the right of the note and lengthens half of its value.

But also, the same passage can be retouched otherwise by other equally valid reasons. In bar 117 the dominant chord of full eighth is *forte*. The Violins, however, must play *pianissimo* from the second sixteenth note of the first tempo: if Flutes, Oboes, Bassoons, French Horns, Violas, Cellos and Double Basses hold *forte* eighth note on its full

duration, the violins *pianissimo* may only be perceived from at least the third sixteenth note, instead of the second. Therefore, if you want the *pianissimo* to be perceived from the point where Beethoven placed it, it is necessary to retouch the duration of *all* the instruments playing the chord of the first beat of the bar, transforming it into an eighth note with dot above, similar to the three eighths of winds at bar 116. This seems to be the right solution: retouching the duration of all the instruments involved in the chord, transforming the eighth into an eighth with dot above, which reduces its duration by half, or replacing it by a sixteenth note. Chromatic friction thereby is prevented and *pianissimo* is perceived on the point where Beethoven placed it.

All the above can be analyzed in the light of certain writing conventions of the time: it was not common then to place on the first beat of the bar where a morphological unit of some significance -as a phrase or motif- ended, one figure shorter than what appeared on the bar denominator. Thus, in 3/8 meter signature the denominator is an eighth note, in 2/4 a quarter, etc. and that is the figure that was written and printed in the context described.

A final case. In some orchestral works Brahms presents a persistent reluctance to write notes for Double basses below the written *E2*. Certainly the written *E2* (*E1* effect) is the sound in which the fourth string of 4-string double basses is tuned, so that for instruments of such characteristics that note is the absolute limit to the low-pitched register. But, of course, there are double basses with a fifth string (*C2*) and extensions, which allow tuning, down the fourth string to *C2*. Composers such as Bach, Haydn, Mozart, Beethoven, Mendelssohn, etc. never hesitated to drop below the written *E2* if the melodic line of double basses required so, thereby leaving it to the performers the decision of producing this sound or not, depending on the available instruments. Not so with Brahms, who sometimes goes to extremes to avoid sounds below *E2* in the double basses. It is not only octave jumps as occurs, for example, in the first movement of the *First Symphony, Op 68* (cc. 340, 445, etc.). It is rather a striking motivic and linear *distortion* that sometimes results from the plain elimination of sounds below the *E2*, as in the opening bars of the first movement of the *Second Symphony*. There, Cellos and Double basses expose a motif of three quarters, the second of which is a lower neighbor of the first (cc. 1, 5, 9). Arriving at bar 13 both motivic consistency and orchestration require Double basses to play *E2-D # 2-E2* (*E1-D# 1-E1*effect to the inferior 8th of Cellos).

Example 16. Brahms, *Second Symphony, Op 73*, first mov., cc. 13-14, Cellos and Double basses.

Taboo is stronger than motivic consistency and orchestration logics: Brahms directly *omits the D#*, replacing it by a quarter's rest. If a conductor has some Double

basses with the fifth string or fourth string with extensor in his orchestra, he may well complete the motif with the missing *D* #.[14]

In short, if the analytical study and reflection convince you that some peculiarity of orchestration is an unexplained inconsistency, not attributable to the technical limitations of the instruments from the time the play was written, retouching can be justified.

The composer as performer

We should never forget that it is thanks to the composers -both of written and oral tradition, famous and anonymous, individual and collective- that *all* the other music-related professions exist and survive. It is not important to delve now into the intricacies of the composition, nor promote a reflection on the composer roles. Just remember that as an author begins to set limits to the endless possibilities offered by the universe of sounds, at the same time he starts nurturing a fruitful source from which performers, arrangers, orchestrators, critics, theorists, analysts, musicologists, anthropologists, semiologists, professors, cultural officials, performers' agents, instrument manufacturers, recording companies, sound engineers and an extensive list of almost unimaginable etceteras will all feed on. But there is one aspect about composers, which must be considered among the *topics* of orchestral conducting, due to its importance on the conductor's interpretative activity. It refers to the composer who conducts his own work, or reflects on the precepts of the performance and how it *must be*.

Until the invention of the phonograph, the only possibility to really know the composers concept of their work, was direct personal testimony. And in order to know how they performed their music, people had to attend their performances. From that long, long period in history that continued until the late nineteenth century, there are only first-hand written references from the composers themselves, or by those who, having heard them, described their execution ways. We must also consider that for much of the European music history, the functions of author and performer were normally and usually superimposed. The musicians studied simultaneously for both composition and execution and, while not ignoring the existence of freelance non-composer performers; cases like Buxtehude, Handel, Bach, Vivaldi, Haydn, Mozart, Beethoven, Chopin, Liszt, Mendelssohn, Brahms, Wagner and Berlioz, are exemplary: they were great composers and great performers at the same time. A *Kapellmeister* or court musician -whatever was his genius or mediocrity- composed and executed, performing and conducting his own works. Consequently, the repertoire spread through concerts, church services and theatrical performances was, almost completely, made up of works of *contemporary music* performed under the direct assessment of the composer.

The *reprise* of Bach's *St. Matthew Passion* by Mendelssohn (1829) may be pointed out as the first truly resonant example of the recreation of a *non-contemporary* work by a freelance performer. If, with historical precision, was not, it may well deserve to be by the steep musical stature, both from the author and the performer. In any case, the *diachrony*

[14] It is worth noting that in other orchestral works, Brahms does not hesitate to use low-pitched *C* of Double basses (cf. *Fourth Symphony, Op 98*, second movement, cc. 92-93, 114-116; third movement, cc. 39-40, 161, 343; fourth movement, cc. 169-170, 254-258).

between creation and performance is clearly manifested in this historic event: the Romantic Mendelssohn recreates the great work of Baroque Bach.

That diachrony, which has become more noticeable over time, determines the performer's function of *living museum* of the musical heritage, making increasingly difficult, risky and controversial, the exciting task of pursuing the author through the score from a standpoint that becomes more and more culturally distant while time that separates the performer from the author expands. From the moment the diachrony begins to exist, the performers feel the need to recover testimonies of all kinds that bring them closer to the authors and their time.

In the case of conductors, their usual repertoire forces them to go back *just* a little more than three centuries ago. Without going deeper into the issue of historicist interpretation, any serious performer from the early twenty-first century must seek, study and evaluate, as a complement to the graphical content of the score, the composers' writings, testimonies of their contemporaries or possible registers recorded by the authors themselves.

A composer who reflects on the text of his work and refers to matters related to the process of its creation can effectively help the performer to learn aspects of its *poiesis*; notes, sketches and drafts also aid in this regard. It can be revealed to the performer some details about the strategy and compositional resources, structure and form, the use of language in the broadest sense, information that he may or may not use to form his own concept of the text content.

However, what happens when a composer *performs* his own work, or reflects on the precepts of how it *must be* performed? In these cases, the point of view of the composer does not seem so exclusive, so privileged, with such much authority as when he reflects on the process of creation. For the rest of the performers, the composer's *interpretative reading* of the text is a fact, valuable, but not an imperative. To think otherwise is admitting that the score has only one possible interpretation, that of the composer-performer, which is contrary to the polysemous nature of the musical text. The wealth of a great musical work consists precisely in the multiplicity of meanings, which result from intelligent, sensitive and deep readings of its content. And in this, we need only consider the congeneric meanings, strictly musical, without going into the grey area of extra generic meanings in texts that at first, do not carry them. How many valid -pre and post Freudian- readings have been made of the great Greek tragedies? How many theater's directors have *read* from various perspectives the great Shakespeare's text and offered different versions but equally persuasive and moving?

As for what a text *says* to the performer, it is clear that you cannot register in a score all the nuances and subtleties of the musical idea but only very roughly, insufficiently and imperfectly. Most of the time, both the approach and imperfection arise from the limitations of musical notation. In other cases, the insufficiency is due to self-imposed limitations by the composers for fear of being *over-interpreted*. It may be appropriate to recall, in this sense, a story of Paul Stefan who tells in his Toscanini biography that, at the time of conducting Verdi's *Pezzi Sacri*, the young Arturo interviewed the 85-years old composer to know his intentions regarding the content and performance of the work. Toscanini asked about the possibility of a *ritardando* at a certain point, while

playing the passage in the piano. Verdi patted him on the shoulder and said, “Very well; that is how I had imagined it". Toscanini asked why he had not written it, to which Verdi replied: "Because I feared that a marked *ritardando* would be too slow”.[15] How many imagined but not written details for fear of an over-interpretation could be discovered in scores of current repertoires, if all the performers had the chance to ask all composers, as Toscanini did with Verdi?

Brahms presents a curious case to Joachim in a letter of January 1886, regarding the upcoming premiere of his *Fourth Symphony* in Berlin. It makes him notice some changes in *tempo* written with pencil on the score, clarifying that they could be "useful or even necessary" for a first performance, and explaining that this kind of "hypes" are necessary only when the work is new for the orchestra (or the "virtuous"). Hereby he explains his rehearsal method saying that he often finds insufficient the efforts to accelerate or retain certain passages -beyond "writing"- until he achieves the desired passionate or serene expression: once the work is the performers’ "flesh and blood", he believes that such excesses (the "hype") are no longer necessary. Moreover, Brahms adds that the more the performer moves away of basic *tempo*, the less artistic he finds the performance.

Also related to the composer who performs or reflects on the precepts of the performance of his work, another question arises: what happens over time and how the meanings of the work may change, for the author, due to his experiences from the moment he conceived the work and embodied his graphic code into a written score and when he mentally rebuilds it, updating the concept to perform it? For we must remember that what any interpreter actually does when executing a work -including the performer-composer- is not *the work* itself, but *a concept* of the work: his concept, the performer’s.

In this regard, it may be interesting to bring up an anecdote relating to the author by Teodoro Fuchs (1908-1969). Fuchs was the principal conductor of the Cordoba Symphony Orchestra in the period in which Manuel de Falla lived in Alta Gracia, a few kilometers away from the capital of the province. On one occasion in which Fuchs rehearsed *El amor brujo*, Falla attended the rehearsal and was invited to sit in a chair next to the podium. Fuchs attacked the Introduction, for which the score indicates *Allegro ma non troppo vivo* (♩ = 132). After a few bars, he felt Falla gently tugged his pants and said, "slow down, please" in a barely audible voice. He started again trying to please the composer. New tugs and requests for slowing down. Finally they reached a *tempo* that satisfied Don Manuel. Fuchs verified the *tempo* was a quarter = ± 100 and later in private, he told Falla about this, who answered he used that metronomic marking in Granada so many years ago... he thought maybe his old metronome must have been failing... Anyway: excuses. In particular, in Córdoba (Argentina) over 20 years after its creation, the *concept* that Manuel de Falla had of his own *Amor brujo* rebuilt the content of the Introduction to a much slower *tempo* than that in which he *heard* it in his inner being when he metronomically measured it, at the time of the composition or edit of his work.

[15] Carlo Maria Giulini refers the same anecdote. According to Giulini, who quotes Toscanini as his source, they tried an *accelerando* and Verdi said that it could not be expected to have everything written down on the score. *Se non è vero è bene trovato*.

In short: it is important for the performer to know everything that the composer can possibly reveal, as to the creation of his work. All this serves to concept formation, which will be executed during the performance. But with regard to the interpretative concept that the author has of his work, it should only be taken as a non-binding data.

Body and posture

> *[Gestures] are expressive movements of the whole body, of every degree or intensity…Obviously those organs which are free in movement, such as the hands, the feet, and the face, are the natural organs of gesture […] Hands possess the power of transmitting psycho-dynamic impulses into space […] Hands as tools of expression which convey the inner world of a person to the outer world are a human evolution [...] The language of gesture with which the hands are endowed is therefore one of the most valuable keys to the human mind.* (Charlotte Wolff)

In the human interactive communication, complete and heterogeneous utterances are sent and received; they stem from the synergic and synchronic combination of multiple dimensions. This characteristic is usually defined as the *multichannel communication* system.[16] Besides the purely conceptual communication –that can be *written*- the dimensions under consideration are:

1. The vocal-acoustic dimension (verbality), with its elements:
   - intonation
   - timbre
   - volume
   - accent

2. The visual dimension, and its elements:
   - static (morphological and physiognomic aspects)
   - slow kinetic (posture)
   - fast kinetic (facial mimicry, gesture)

Since birth and during the pre-verbal stage, infants' messages are almost only gestural, like it was in the dawn of the human evolution, when elemental, basic communication body gestures were present before any type of verbal communication, which entails a higher degree of evolution and a further capability for abstraction. In everyday spontaneous conversation among adults, the non-conceptual elements of the message have a considerable deeper impact on the receiver. Researches from Albert Mehrabian found that out of the total impact of a message delivered in the context of an everyday and spontaneous conversation among adults, only 7% is purely conceptual, 38% is created by the vocal-acoustic dimension and the rest -55%- comes from the visual elements, body attitudes and speech gestures. Thus the vocal-acoustic dimension has five times the impact of the said concept, and the visual dimension, eight times more. As a consequence, when there is no coherence between the conceptual, the visual and the vocal-acoustic dimensions, a person trusts, believes more in the inference or

[16] See COSNIER, J. 2002: "¿Hay gestos específicamente humanos?", *deSignis*, n° 3, Barcelona, Editorial Gedisa. Interview by Lucrecia Escudero Esquivel

interpretative reconstruction of the non-conceptual signals cast by his conversational partner.

In orchestral conducting, the main communication means between the individual-sender and the receiver group is the gesture-based code, mainly by using the hands. As a supplementary resource, we have body attitude and facial gesture. And finally as a minor complementary way and only during the work preparation period, the speech, not using it at all in the public execution of the work.

The Latin word *gestus* is usually defined in dictionaries as *the face expression related to the different moods and emotions*, but also in the sense of *movement, hands and whole body motion.* The word is etymologically linked to *gerere*, which means *declare, behave, show*.

Gesture is not immanent. Gesture transcends and communicates. Without getting into the specific field of orchestral conducting and keeping the debate within the sphere of the daily behavior of the person, it is well known that gestures may instantly influence the nervous system of another person. In orchestral conducting, this is a fundamental verification since it is the basis of *the raison d'être* of gesture communication and its technique; on the other side it forces the conductor to eradicate any gesture that may negatively affect the receiver.

In a positive sense, the conductor gesture is basically used to communicate step by step, minute by minute, his concept of the work, qualitatively and expressively defining the meaning in the printed text in the part that the performer reads. Besides, the conductor gesture may affect the nervous system of the performer and such influence reveals into the execution, adding that ineffable *plus*. A *plus* that will make a difference between a proper, accepted reading and an expressively seducing, transcendent and committed execution.

We have already pointed out that we do not conduct *the work in itself* but *a concept of* the work that we develop through the study of the score or text. However, we have also admitted that we may come *to know* further *about* the work and its circumstances, including plenty of information about its content. Yet, we have to be fully aware of the differences among:

1. to *know* about the work,
2. to have an *interpretative concept* of the work and
3. to be able to *express* the said concept through the instrumental execution of others.

From the difference between *knowing about* the work and *executing a concept* of it, some gesture connections arise, that are of much interest and cannot be ignored. Psychologists used to state that higher mental functions, like abstract thinking, are particularly *inexpressive* and only the imaginative, concrete thought when emotionally coloured is accompanied with gestures, mainly using the hands. Once the conductor has shaped his concept of the work, he creates the code or *gestural score* that will use with the performers. And since the imaginative thinking when emotionally coloured is accompanied with hands gestures, we can infer that the emotional content of the ideal image being communicated will impose certain conditions on the type of gestures to

adopt, beyond the purely mechanic signs that the coordination of the instrumental group demands.

A rich and diversified emotional content should generate a gesture code with those same characteristics since, even though in everyday life hands spontaneous expressive movements are subconscious, it is possible to make them fully conscious to produce *gesture symbols* which would mean a certain sonorous feature. Specifically, the gesture should lead to the production of the *desired sound*. The more vivid the image of the sound the conductor's concept has developed, the more persuasive and unequivocal its gesture symbol will be.

It is easy to confirm that *meaning* and *communication* are topics that almost exclusively drew the attention of some of the most renowned thinkers of the 20th century. It is enough to skim through the 29 pages of the bibliographical references of Umberto Eco's *'A Theory of Semiotics'* of 1991 in order to become aware of the importance of these phenomena. A very large amount of this material has been devoted to non-verbal forms of communication, being able to assert that the *non-verbalism* in its different manifestations is one of the most typical fields of study of social sciences of the end of the 20th century.

In daily life, what people's gestures communicate is keenly examined –with different purposes- by psychologists, salespersons, theatre and movie directors, opera *régisseurs,* choreographers, teachers, politicians, barkers, swindlers, legal and law-enforcement questioners, etc. Gestures –together with acts and words- intellectually and emotionally undresses the human being.

The orchestra conductor communicates with his collaborators through a language that, in the moment of the public execution is exclusively gestural. The speech, with its conceptual and voice components, is plainly used and only in the rehearsal and preparation phase. It has to be barely used to make the necessary technical requirements in order to produce the desired sonorous result and occasionally to allude to some image that may be of assistance to accomplish the pursued objective.

There is a moment –in public execution- in which the gesture constitutes a 100% of the communication between the conductor and its collaborators. It is true that in that instance, gesture mainly operates as an *aide-mémoire* for the previously established convention in the rehearsal and preparation period. But it is also true that those established conventions are not automatically and mechanically transferred to the public execution: they have to be reproduced every time. In the recreation process some tiny deviations occur, for example, in dynamics and *tempo*, in differences in the expressive and articulatory intensity and others that highly depend on the emission and decoding of the gesture message in that precise moment of the execution. Even though it is risky to state that in the moment of the public execution there is improvisation, there always exist slight and inevitable modifications in the conventions established in the previous preparatory period.

As in speech, in the gesture language used by the conductor, there is also truth and untruth. There is *truth* when what is communicated by the sender-conductor matches with the text the receiver-performer has in his stand, assessing it as regards quality and quantity *without contradicting its explicit content*. It is obvious that interpretative

qualification and quantification are inevitable conditions for the execution of the text. For the *truth* to exist it is necessary that in the moment of quantifying and qualifying the explicit, graphic content of the text should not be distorted or contradicted. There will exist *untruth* in the opposite case, when the quantifying or qualifying message openly contradicts or distorts the graphic content of the text.

The conductor-sender gesture, in its primary and mechanical function, communicates and synchronizes with and among the receivers, the beginning and ending moments of each of the integral parts of the work, as well as the speed of the passage of the sonorous events that determine its formal content. Sometime in the past, these primary mechanical actions simply oriented to the execution synchronism, were practiced through isochronal beats produced with the hands, feet or blunt objects such as sticks, boards, canes, etc (let us not forget Jean-Baptiste Lully's death, as he was a victim of the infectious consequences of the self-inflicted wound he inflicted himself in a foot with his *rococo* conducting staff. From those practices and customs, we still use nowadays some polysemic verbs that in different contemporaneous languages mean not only the physical action of *beating* but also to *keep the rhythm* or to *beat.* For example, in Spanish *batir*, in English *to beat*, in French *battre*, in Italian *battere* and in German *schlagen*.

The evolution in this field followed a path nearly opposite to the mankind verbal communication. In verbal communication, the meaningful gesture (corporal, definite and silent) was replaced by the word (sonorous, abstract and symbolic voice gesture). In musical performance any type of noisy coordination was gradually left aside due to its acoustic interference with the music being performed, with the objective of substituting it by a silent language created upon the communication possibilities offered by the body language. The transition of the *noisy beat* (concrete) to the *silent gesture* (abstract) took a developing process that nowadays is still ongoing, since the musical language evolves and creates new expressive and formal contents that must be communicated, like for instance, in chance-music.

Chironomy dates back to ancient times, keeping its validity still in the modern times. There exist Egyptian bas-reliefs of the 3rd millennium BC in which *chironomists* appear among singers and performers of different instruments. However, we can state that the rudiments of the modern gesture technique are witnessed in France the first years of the XVIII century with the directions of Michel de Saint-Lambert and Michel Pignolet de Monteclair, related to the space trajectory that the execution of diverse metric patterns requires.

Orchestral conducting, in addition to the use of conventional signals to ensure a synchronized coordination of the instrumental execution, requires in the communicated message the active presence of significantly expressive components that move the performers-receivers until they accomplish in the sonorous execution the construction of the concept that the conductor-sender has formed of the work. Let us remember that *to express* literally means *to exert pressure to the outside* as long as *to move* denotes *to emotionally move another with oneself*.

The alluded *excitement* and *expression* should be *exclusively* delimited to the communication process that works between the conductor-sender and the performer-receiver. The gesture code is a symbolic form that communicates a concept of the musical

work that the conductor suggests and the performers execute. Said concept, once it is executed –that is, made audible- conveys *another* message, *another* symbolic form (the sonic) that conductor and performers, held together as collective senders, communicate to the other receivers: the listeners.

In this quasi-synchronic sequence of different symbolic forms there is a real danger. Very frequently, the listener visually perceives the conductor-sender communication process directed to the performers-receivers, rebuilding the gesture message his way and interpreting it improperly fitting it into with the audible symbolic form that is being communicated by the performers with the conductor's guidance. The audible symbolic form is *the executed concept of the work*, which should be perceived exclusively aurally. Communication between the conductor and his collaborators only makes sense between them. The purpose of the conductor, as a sender, should be rebuilt by the receivers he guides, that are the performers, who share with the conductor the signification code of the gesture language. The listener shall not rebuild any code since no gesture is aimed at him and most serious, he does not share with conductor and performers any signification code of gesture language. If the listener interprets the gesture message of the conductor not knowing the code that gives its meaning, it will end in a non desired process distortion that strictly speaking and stated like that, will approach the perception and decoding way of what is communicated by another discipline, dance. Said distortion may carry the listener to wrongly rebuild a gesture message that is not of his competence –the message the conductor produces for his performers- and mix it with the other, pure sonorous form, that is addressed to him, the listener, and that it indeed belongs to him. A clumsy and primary consequence of this distortion is to overlap to the sonorous message, the concept that the listener has formed through *observing* from his own being and his culture the conductor's gesture, making on them inappropriate judgments, based more in the visual impression than in the aural perception of the result, that is the genuinely musical factor to be taken into account.

The explained distortion does not imply denying the fact that in the integral perception of the listener the influence of the visual component is huge. This perhaps unwished reality shall not be built in any way the *raison d'être,* in the end-use of the appearance and gesture attitude of the conductor. Naturally, a great deal of it is visual: an erect stance, secured and disciplined gestures, the audience may appreciate an attitude of confidence. However, those features are the consequence of a good body training, the development of an efficient gesture technique, a profound text assessment and an strong conviction in the obtaining a certain *sonorous result* that in the end it is what the listener must judge.

Finally, let us remember that in daily communication the impartiality of the observer when interpreting another person's gestures is not only diverted or imbued with the characteristics of its congenital being (observer) and his culture, but also the sympathy or antipathy feelings towards the gesture subject that communicates: the funny face of a dear one may turn hideous or disgusting in a non-loved one. That psychic factor also influences the decoding that the performer makes of the message sent by the conductor.

A well-understood gesture language is systematical, based on few but firm principles:

1. Visibility
2. Intelligibility
3. Functionality
4. Naturalness
5. Economy

In its context, gesture language is the equivalent to calligraphy or typography in graphic communication. For instance, those who went through the methodological strictness of the school subject *Calligraphy* –in pre-digital times in commerce-oriented schools, professors used to teach how to complete account books by hand in a very utopian way- learnt maybe laboriously the specific features of English cursive writing. To that orthodox, academic base, in daily writing the personal features of the writer were added. In any person's handwriting is possible to recognize not only the base of the pure calligraphic system used but also the deformations produced by the personal features of the person. It is a fact that those deforming features are so personal as fingerprints and the calligraphic expertise determines so. The same occurs in orchestral conducting: an operational gesture system is like a calligraphic type base to which the conductor inevitably adds his personal features not because he aims to but because when conducting he is putting at stake unconsciously all his corporal being with the unmistakable, non-transferable history of his own body.

Calligraphy –or typography- are means to record and communicate contents. The same happens with gesture in orchestral conducting. The gestural technique gives a systematic base that each conductor inevitably *deforms* with his personal gestures. The result is so personal and unmistakable as the spontaneous handwriting or the fingerprint. There are not two conductors that develop *exactly* the same gesturing. And like calligraphy or typography, gesture technique is only a resource to communicate content. A splendid calligraphy may communicate the most obscene *graffito* content in a public restroom while a clumsy handwriting may record and communicate a beautiful poem. The stylish gesture of a conductor in itself is not enough if it is not used to communicate a rich concept, a musical content of a high standard. The gesture code used by a conductor is no different from a dynamic and tridimensional calligraphy by which the concept he has formed of a certain musical event is communicated so that third persons may execute it. As a natural consequence of these reflections, we can also affirm that if we are able to write a message in diverse calligraphies or typographies, from the gestural point of view it is possible to conduct in many different ways but not in *any* way.

The Body

Specialists have warned on the lack of conscience that we experience nowadays regarding our own bodies, and about the difference that exists if we compare this with the massive propagation that some issues related to the basic, elemental psyche functioning have reached. There is plenty of bibliographic material on the body topic, thus it is not logic or appropriate to restate the conclusions reached by authors such as Alexander, Ehrenfried, Reich, Mézières, Feldenkrais, Bertherat and so many others more or less contemporaries throughout their experiences and discoveries. It is not relevant either to look into the possible origins and causes of the described situation that may be well date

back to ancient cultural traditions. It is enough simply to manifest that the teaching experience has confirmed that such ignorance and *non-consciousness* of the own body and its functioning is widespread among orchestral conducting students, who should be vitally interested in a topic of such importance.

There are two fundamental topics to be considered:

1) The conductor as an interpreter resorts to his intelligence, his emotions, his feelings, his knowledge, his intuition, and that entire one may call his *spiritual and cultural being* in order to read and interpret the musical text and form his concept of the ideal image that comes from it. His body will communicate that image through the gesture. The body is not opposed to the spirit and culture that shaped that image but it holds includes and embraces them. And because of that, to apply conscience to *the sensitive knowledge of the body* means that the body should be considered in its totality.

2) The body is the main tool, almost the only resource the conductor possesses to establish his *interpersonal communication* with those who collaborate with him and that must make real that concept or ideal image that came out the interpretative reading, with sonorous and temporal presence. In that, the conductor exposes the totality of their *corporal being*. He must be aware of his own body and then exercise it and keep it in line in order to project with the most subtleness and precision –via gestural technique- that what he wishes to communicate. If there is no previous *body awareness*, there cannot be body discipline nor making and exercising of a gesture language.

During the formation period of the future conductor, that period in which the habits of the *non-daily* movements that orchestral conducting requires are established, it is essential that he has the full experience of the connected sequence *stimulus* ® *sensation* ® *conscience* ® *voluntary movement*, the only path towards the appropriate development of gestural conducting habits. The conceptual abstraction *human body* only represents the synthesis of many human bodies. There exist the individual bodies of each human being and among them there are not two morphologically and functionally that are *exactly* the same. Thus, the deepening in the *sensitive awareness of the own body* and its possibilities, it is a personal, non-transferable process independent from the conceptual knowledge of the human body as an abstraction. The sensitive awareness of the own body is the only authentic path offered to a certain person in order to fully use it for expressive communication. Teachers may guide, direct, but not *introduce* from the outside what the person only will noticeably reach to know about his own body, making the information of his non-transferable sensations and according to the impulses of his own will. Movements that develop muscle intelligence originate inside the body: they are not imposed from the outside.

The future conductor must take interest in acquiring -or updating- some basic knowledge on the body and its functioning. Expansion and deepening of that knowledge corresponds to, obviously, anatomy, kinesiology and in lesser degree to physiology. Kinesiology mainly because studying human movement implies the basics of gestures. Within kinesiology branches, the morphological-functional and the psychological specialties have particular importance. Psychological branch especially because it studies the relation between movement and its meaning, its connections with the body image, the aesthetic expression, communication, personality and motivation.

Let us revise some basic facts that have to do with the human body functioning. *Bones* provides the frame to keep the body supported and they juxtapose and form *joints*. *Ligaments* and *joint capsules* keep bones in the proper position in the joints by controlling their movement. *Muscles* are the motion driving force: they activate bones –in which they are inserted through *tendons*- producing lever movements. *Nerves* have motor and sensory functions: in one direction, they make *sensations* to get to the brain, where they become *conscience*; in the other direction, they transmit the brain order of *voluntary actions* to the corresponding muscles.

As regards to its mechanic action, a muscle is only capable of tightening or relaxing, varying the *tone* or degree of fibre tension. Each body movement is the result of the joint and simultaneous action of several muscles: never or rarely a movement is produced by the sole contraction of a unique, isolated muscle.

Muscle tone has functions such as 1) the natural turgidity of the fibre and muscle tissue and 2) muscle response to the nervous system stimuli. Muscle tone varies from relaxing extremes (low muscle tone) and contraction (high muscle tone). Pathological tendency to those extremes is referred to hypotonia and hypertonia. Dr. Gerda Alexander is said to have coined the term *Eutony* –from the Greek *eu*=good, fair, harmonious and *tonos*= tone, tension – to express the idea of a balanced tonicity in constant adjustment and adapted to the moment activity or state.

The search of this balanced tonicity, based on the voluntary control of the muscle tone and constantly adapted to the moment's movement requirements, constitutes one of the necessary bases for the coaching of the conductor in the use of his own body. Already in 1931, at the same time or shortly before the first public activity of Gerda Alexander, piano pedagogue Karl Leimer stated:

> In order to attain a natural manner of playing the piano, that is to say, with the least possible strain and exertion, it is of the utmost importance to learn *to exert the muscles consciously*, and, what is of still greater importance, *to relax them consciously*. My manner of accomplishing this differs from that of many other pedagogues. I contrive to raise a feeling of relaxation from within, as it were. This is generally –and wrongly- attempted by the aid of visible movements. All superfluous movements are injurious. The aim should be the very least possible strain of the muscles when playing the piano.

Leimer's principle matches Alexander's: voluntary control of the muscle tone, in constant adjustment, to intelligently adapt it to the moment's movement requirements. Above all, the voluntary tone unwind –relaxation- produced *from inside*, through sensations and conscience, and not *from outside*, via external movements.

Typical orchestral conducting movements, of fine to medium motor skills, are basically the non-daily movements *that do not belong* to the gesture repertoire we acquire

during childhood, those which we do not rethink and repeat just automatically during our entire life. To incorporate –which literally means to introduce in the body, to embody- this type of non-daily gestures requires a certain effort, since it demands the application of nerve connections rarely or hardly used. The starting point is the conscience of the own body, that is not miraculously reached but we have to work for it. And those who allow themselves to work to achieve fully body awareness through time and concentration will succeed

The Posture

Charlotte Wolff stated that postures are physical attitudes, which serve as sort of platform from which expressive movements take their departure. Kinesiologists think that the *good posture* concept suggests the idea of a standing position that satisfies certain aesthetic and mechanic specifications and that it is an individual matter, since it is the physical structure of each person, mainly its muscle type what determines the posture that we deem ideal

Aesthetic matters are related to cultural norms of a certain society, and mechanic ones become linked indeed with our purpose when adopting a certain posture. It is obvious that the posture a goalkeeper adopts when facing a player who is about to execute a penalty kick will be very different to the conductor's posture when preparing to start the prelude of *La Traviata*... As Monica Rector reminds us there are gestures connected to culture and representation like theatrical gestures, rituals, ceremonies and artistic performances.

In any case and from the orchestral conducting perspective, we need to remember there is a relation between *attitude*, related to the content of what it is going to be communicated through gesture, and *posture*, consequence of that attitude, and supporter of the subsequent *gesture*.

In order to start with some elemental matters, let us remember the influence that gravity has on posture. The force of gravity is the attraction of each universe particle of mass exerts on all the other particles. If we take two whatever particles, the magnitude of the force of attraction known as *universal gravitation*, is directly proportional to each particle mass and inversely proportional to the square of the distance between them. As regard the body and Planet Earth case, the mass disproportion between them is of such magnitude that the attraction effect that particles exert on the body over the particles of the planet is, in practice, totally despicable.

As a consequence, the gravitational force must be considered acting on the human body with the following characteristics:

1) in one and only direction (towards the center of the Earth)
2) constantly (without interruptions)
3) affecting each and every particle of mass on the human body

Given that all the mass particles of an object –in this case the human body- are equally subject to the same gravity force, and that all those forces point towards the centre of the Earth, it is mathematically shown that if all the object mass would focus on an only

central point, the attraction force exerted on the object would be the same. That point is called *centre of mass*, and in a rigid and symmetric body of uniform density, for instance a cube, a sphere, etc, the point matches the *geometric centre*.

Human body is not rigid nor symmetric, and its density is not uniform, thus the calculation of its centre of mass is kind of complicated. To our end, it is enough to know that in the *normal erect position* with the arms hanging at the sides, the centre of gravity of adult males is approximately 56 to 57 per cent of their total height from the floor.

Anatomical position is that position from which kinesiology describes all the movements. It constitutes the *zero point* for the analysis and description of the rest of the positions and joint movements. In the anatomical position the body is elongated like if the head suspended it, with the arms hanging at the sides, the palms turned forward and the feet perpendicular to the legs.

When adopting the normal erect position some modifications related to the anatomical position occur: legs are slightly separated and they show a small opening angle; feet are slightly opened to the outside; arms and forearms rotate to the inside and hands with the fingers slightly bend, hang forming an acute angle in relation to the frontal body plane. In early childhood, when the child goes from crawling to the erect position and starts to walk, apart from the morphological and functional transformations that experiences in that period, lives in a very dramatic way the search of balance to its own center of gravity, that influenced by the head, it is in a relative position much higher than in adults.

As time goes by, and through experience and development, the permanent daily actions that are necessary to keep the erect position counterbalancing the permanent action of the gravitational force, they become reflexes that almost escape from the voluntary actions sphere. Each adult according to his physical structure will find an erect posture of his own that ideally shall give him the best balance and support with the least effort.

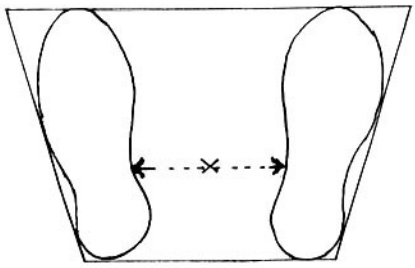
Said posture should create the feeling of being firmly supported on the legs, because of the certainty that such sensation provides at a psychological level. A great amount of body defects in adults' daily life -muscle pains, cramps are caused by poor postures. The adequate posture in orchestral conducting is the supporting basis of gesture communication mechanism, which derives in the need of paying special attention to posture, since the intense practice of conducting without the adequate postural support may lead to unwanted damages.

The human body, due to its structure, density and the position of its center of gravity, may accomplish only a momentarily perfect balance. The minor deviations caused by some almost imperceptible actions like breathing are prone to intensify by the effect of gravitational force. When this happens, the deviation antagonist muscle activates –in an instant and by reflex action-, they hold it and manage to restore balance. The speed and precision of those reflexes can be tested every time that due to a tumble or slip, one looses balance: the body rapidly acts independently of conscience, recovering the balance and avoiding a possible fall. On another side, when we are standing and we faint, the body

abruptly falls, which proves that to keep the normal erect position, the full functioning of some nervous system areas is necessary.

The presence of two lower limbs facilitates the body stability in the lateral plane. From the pelvic girdle, the spine is the only supporting element to reach lateral and front-back stabilization. Feet slightly separated and rotated outwards provide a good support basis to the erect body: if we match the points of that base, we get a trapezoid.

Figure 1.



The body is well balanced when its weight is felt uniformly distributed in the foot surface touching the ground. If the centre of gravity is moved in the anterior sense, we may perceive a tendency to lift the heels; if it is in the posterior sense, the toes are the ones, which lift. In normal erect position and in balance, the line of gravity –gravity or weight- goes through the geometric center of the trapezoid base, approximately to 4-5 cm in front of the ankle joint, marked with a cross in the precedent Figure 1.

Conductor's posture

From the soles of one's feet and the feeling of the weight body evenly distributed in all the foot surface, the normal erect position that is adequate for conducting demands the feeling that the body is stretched by an upper traction anchored in the head, making the elongation of the spine and simultaneously relaxing the scapular waist which must be perceived as if it were hanging from the spine. The control over the normal erect proper posture through the sensations aids to control the scapular waist behaviour when moving the arms, essential to the development of a good conducting technique and thus, a gesture communication.

The arm-baton unit

Eugene Ormandy, who used to be one of the most celebrated proponents of the no-baton method changed to using a stick a few years ago. When he was asked why, he replied that his physician had assured him the little stick would add at least five years to his life. (FUCHS, P. P. 1969: *The Psychology of Conducting*, New York, MCA Music, p. 24)

We call *arm unit* to the lever system (bones) and fixed points (joints) that include:

-The shoulder joint
-The lever-humerus
-The elbow joint

-The lever-forearm (radius and ulna)
-The wrist joint (carpus)
-The lever-metacarpus
-The metacarpophalangeal joints
-The lever-phalanges
-The interphalangeal joints

Among all the joints in the arm unit, the shoulder joint takes special importance since its proper functioning will be for the conductor a guarantee to prevent the most common work-related conditions that may affect him, such as the one associated with joints and muscles.

Shoulder joint is the one with greatest movement and less stability of the whole body. It is made up by a head (humeral head) and a cavity (glenoid cavity, located on the lateral angle of the scapula). Most of its mobility –which allows for instance to perform a 360° circumduction, that is to move the arm as drawing a cone with its vertex fitting into the joint- is due to the joint capsule which is very relaxed and allows the humeral head to move away up to 2.5 cm of the cavity.

The elbow joint is a hinge joint that allows only flexion and extension movements. The humerus bone articulates there with the radius-ulna bones. Because of its structure, that joint is much less movable than the shoulder one. In orchestral conducting, the shoulder joint takes part mainly in horizontal movements (arm abduction and adduction) and the elbow joint participates in vertical movements (forearm flexion and extension).

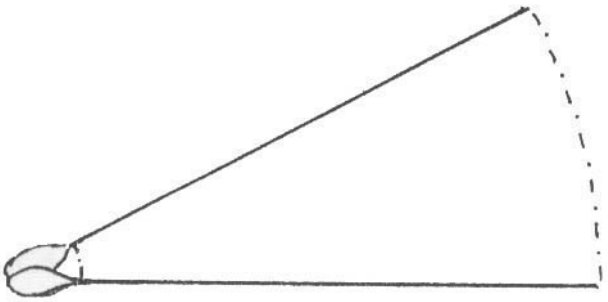
As the last and distal element of the system it *integrates* -it does not *add*- the lever-baton. In its colourful opinion on the apparent fascination that a conductor exerts on the audience, Paul Hindemith ventured (c.1950) the hypothesis –tinted with psychoanalytic frenzy- that in an era that leaves little opportunity in the individual's life for the application and the display of overt despotism, the demonstration of some refined and stylized form of oppression seems to be imperative. The listener in the audience who in his normal behaviour has to suppress, thousands of times, his most natural human desire of governing, ordering, dictating to, and even torturing his fellow men, projects himself into the conductor's personality. In that context, the conductor's baton would become the teacher's cane, the dignitary's mace, the general's sword, the king's sceptre, the sorcerer's wand, and even the slave driver's whip over his subjects. Hindemith adds "…and quite contrary to the effects such dictatorial manners have in real life, the result seems to be pleasant to all concerned." (HINDEMITH, P. 1961: *A Composer's World*, Garden City, New York, Doubleday & Company, Inc. pp. 159-161).

The baton is not of course the symbol of any of the detailed objects. It does not guarantee better visibility or higher precision and accuracy in orchestral execution: there were and there are prominent conductors that are capable of attaining the most precision and accuracy without using a baton. In this order, we can think of Scherchen, Stokowski, Rodzinski, Klemperer, Masur and, above all, Boulez: is there in the whole world of the beginning of the third millennium a greater paradigm of precision that the Pierre Boulez, conducting without baton?

The *only* valid reason to suggest the baton use in orchestral conducting, and accordingly to develop a technique that includes it -that is to say that integrate it to the

body- is the *mechanical advantage* that the baton provides. The baton provides a distal lever arm of considerable length to the lever and joint system of the arm-unit. Baton multiplies the movements in their range of motion and speed thus enabling a noteworthy muscle energy saving. For instance: a movement applied in the *gripping point* where baton is held between thumb and forefinger widens and speeds up the tip of the baton to proportions that may *triple* the range of motion.

Figure 2.



Below and as an example a rough verification of what happens concerning the motion multiplication using a 36cm total length baton with a gripping point located 7 cm of the handle and 29 cm. of the tip.

Figure 3.

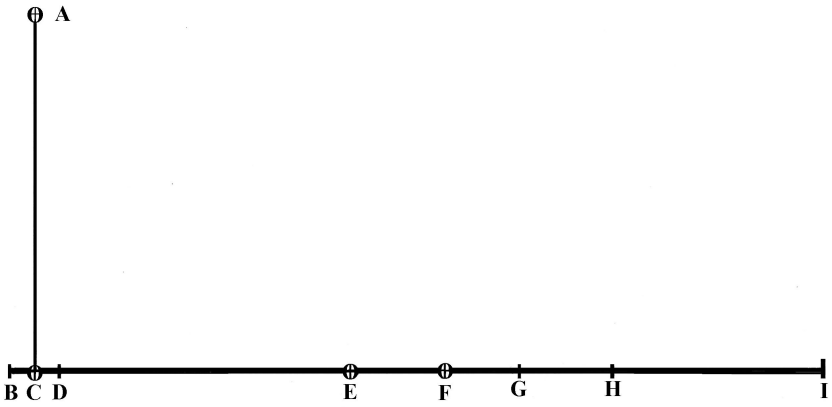


Figure No. 3 shows the diagram of an arm-unit of anatomical measure holding a baton with the detailed characteristics. In such conditions, the joint and lever system has the following lengths:

Point	Description	Lever arm	Length in cm.
A	Shoulder joint		
B	Triceps insertion to the ulna	A - B	30.2
C	Elbow joint	B - C	02.5

D	Biceps insertion to the radius	C - D	02.5
E	Wrist joint	D - E	27.5
F	Baton support point	E - F	09.0
G	Baton gripping point	F - G	07.0
H	Middle finger tip, hand stretched out	G - H	09.0
I	Tip of the baton	H - I	20.0

Let us compare the efficiency of the forearm movement alone and forearm holding the baton. If a 1cm movement is applied to points B, D, F and G taking as a reference the fixed point detailed in each case, the movement in the system extreme is (H: without baton, I: with baton) is:

1 cm. in	Fixed point in	cm. in H [without baton]	cm. in I [with baton]	Higher efficiency
B	C	23.0	30.0	+ 30%
D	C	23.0	30.0	+ 30%
F	E	01.7	05.0	+ 193%
G	F	02.2	05.1	+ 130%

The maximum efficiency is reached moving the baton with the fixed point placed in the wrist joint. Thus the baton practically triples the result obtained in the same fixed point without using it. Such extraordinary multiplication, on the other hand, forces to carefully monitor all the undesired movements of an excessively active wrist since an active wrist frequently causes a speedup –"lashings"- in curve trajectories leading to wrong stresses and even making an irrelevant *visual noise*.[17]

With the fixed point in F support (a place located between the metacarpophalangeal joints of index and middle fingers) duplicates the efficiency. And in less favourable multiplication conditions –with the fixed point in the elbow- the efficiency improves almost a third, which is from the strictly mechanical point of view, a considerable advantage.

An adequate baton should meet the following conditions:

1. Length. Proportioned to the user's forearm length, to which the baton ideally extends. A baton would be adequate if laid out on the front side of the forearm, reaches its joint with the arm (flexion angle) until the middle finger first phalange.
2. Centre of gravity. Located in the gripping point where index and thumb fingers hold it tight, grasping the baton.
3. Colour. Matte white.

17 The *visual noise* notion comes from Graphic Design and refers to any superfluous stimulus that interferes or distracts of what is considered the focal point of the message wished to communicate through the sight.

4. Stiffness. Enough firmness not to vibrate or become arched in the most vigorous and rapid movements.
5. Material. Wood. Occasionally a very light synthetic material.

The grip is more effective if the baton ends in a small wood or cork handle with an acorn or tiny pear shape, which dimensions –length, diameter or volume- should keep a proportion with the length of middle, index and thumb fingers phalanges, which hold it.

The gripping is applied -with the hand palm facing downwards- through the thumb opposed to the index finger phalanges II and III joint in its outer side. The bend thumb holds part in the shaft and part in the handle slightly driving backwards. The handle should be comfortably and totally placed in the cavity formed by thumb, index and middle finger, also bent. This last finger is the one that slightly holds the handle whose end may delicately be supported in the palm side of the hand, to the metacarpophalangeal joint of index and middle fingers.

The baton fits into the arm-unit the same way a golfer fits to his club or a tennis player fits to his racket to execute a certain impulse action. It becomes a real extension of the conductor's corporal being and not a mere appendix. In short: whether it be a tennis racket or a golf club, objects *lengthen us* and allow us to make longer gestures in space. But adding a rigid object to an unsupple arm, however, only lengthens our stiffness.

In athletes' case, all the body energy –that practically stems from the feet soles- goes through their bodies and directs to the rigid object focusing in the contact point in which the rigid object impacts the ball that is wished to be impulsed. The same happens with the conductor. In his case, it is not only a physical energy but also mental and affective, the one that directs to the tip and reaches the performer.

The tip of the baton is the ideal contact point to which the conductor directs what he wishes to communicate and where the performers group, the message's addressee –not the audience!- reads what is being communicated, decoding and transforming it into the proper sonorous production. In that contact point, the communication act between individual-sender and group-receiver is effectively produced. In golf or tennis, all the corporal action that the athlete makes is based on what happens in the point and moment of the impact of the rigid object with the ball. The intended action in that point and moment, with its variables related to speed, power, angle of incidence, etc., is what determines the corporal behaviour previous to the stroke or shot and according to it, the system body-arm-rigid object behaviour as an articulated and integrated unit. Energy required for the stroke rises practically from the contact of the feet with the ground and it is transmitted through the body until it reaches the contact point of the rigid object with the ball.

Something similar happens with the baton. The whole system behaviour from the feet-ground contact is determined by what should happen in the tip of the baton to which all the communication energy is directed without obstacles, impediments, lessening or deviations. Those circumstances exist when the conductor disperses the energy flow at a certain point in its itinerary –for instance, in knees, elbows or wrists- or at a certain point out of it like head. A push with the knee, wrist, a nudge and a head butt are not only things that disperse the energy but as we mentioned they produce *visual noise* interfering with

the energy flow that should get intact to the distal end of the arm-baton unit from where the discharge of what is communicated projects.

Many ideas pointed out here come from the observation of physical actions that good bowed string instrument performers make. In those actions, all the performer makes with his body is based on two contact points with the strings: hair bow on one hand and left hand fingers on the other. In the first case, in order to make an ideal angle for the string answer to the friction of the bow, and on the other to allow a firm, agile, and secure fingering. The whole system adapts and operates according to the efficiency on the energy use required by the production of the desired effect in the contact points.

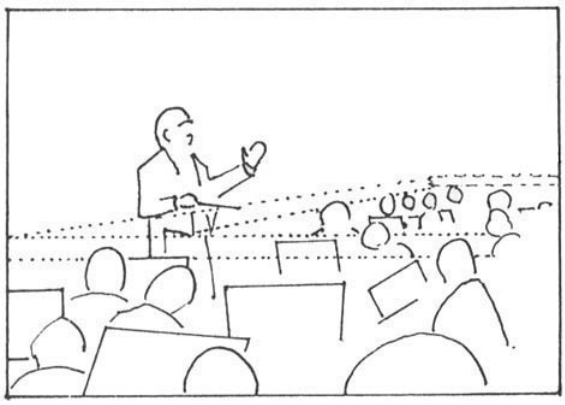
To sum up, all the conductor makes to issue his gesture message, the behaviour of all his corporal being, must be done according to projecting the energy to the distal point of the arm-baton system, that is the tip of the baton, from what his message is projected and from where his collaborators will *read* it. This naturally refers to the hand that holds the baton in case it is used (in case of not using a baton, the projection will be done in the fingertips). As the immense majority of conductors are right handed, baton is mainly used in the right hand. Igor Markevitch in his classes, used to call the right hand, *the brain hand*, and the left hand, *the heart hand*. Gesture psychologists believe the same more or less but in less poetic terms: the right hand is the *conscious and executive* hand while the left hand is the one which expresses the *subconscious states* and impulses.

Baton Placement

Orchestral conducting is, basically, interpersonal communication, from one person to a group of persons. It is ideal that every baton communicative movement must *mean something to someone*. *Someone* could be all the members of the orchestra, just part of it or a single person. For the message to be decoded, -apart from the shared code- two obvious conditions are required: 1) the message to be *visible*, 2) the message to be *understandable*.

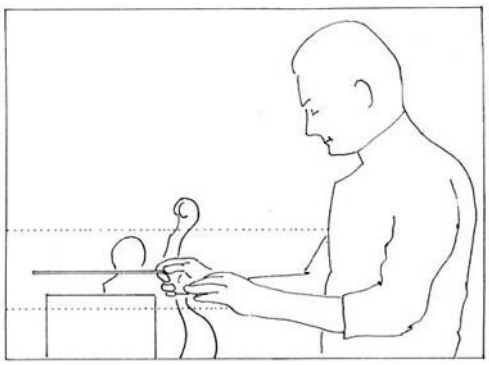
The first condition demands the conductor to be conscious of the existence of a *field of vision* within which the gestures must take place, taking into account that the tip of the baton could not get outside of it or the communication will loose operational efficiency. In figure 4a, the field of vision is pointed out with dotted lines. Within that area, the performers should be able to *see the baton without having to look at it*, while reading their scores.

Figure 4a.



The field of vision boundaries (Figure 4b) are determined by the peripheral vision of the performers that are *closer* to the conductor. The *lower limit* is the imaginary line stemming from the union of the first stands top-edges of the stringed quartet sections (Violins I and II, Violas and Cellos), that surround the conductor in every regular orchestral layout. The *upper limit* is the imaginary line stemming from the union of the upper limits of peripheral vision of the same performers. For the other orchestra members and, as they are more distant to the podium, their view makes the peripheral vision more and more spread over the conductor and his surroundings.

Figure 4b.

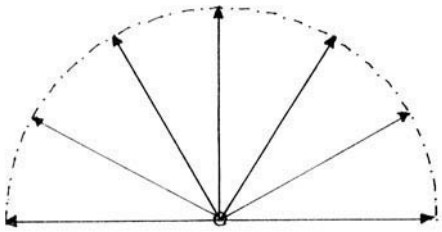


In figures 4a and 4b, it is observed that the baton placement within the field of vision, determines as well that gestures take place in the middle of the conductor's body. Semiologists consider that in daily interaction the senders / receivers as well as the receivers / senders are conscious of the interrelation between the gestures and any specific part of the body. Finol points out:

> The idea of an *action + future* seems to be easily expressed by using hands and arms on top of the head. The meaning we have named as *practice* might be coordinated with the middle part of the body. As well, this same part is used in association with *feelings* and *emotions*. (FINOL, J. E. 2002: "Cuerpo y rito: la estructura del gesto en ceremonias públicas", *deSignis*, n° 3, Barcelona, Editorial Gedisa, p. 88)

The concept *field of vision* spawns as well the idea of an environment in which the process of communication takes place.

Figure 4c.



This *communicational environment* (Figure 4c) is limited by:

1. the plane of conductor's back, lengthening to each side by the imaginary line that joins the performers' outer border on the right and left sides of the podium,
2. the plane resulting from the imaginary union of the performers on the extremes of the orchestra, usually the last stands of the stringed quartet, double basses, percussion, piano, etc.,
3. the plane resulting from the imaginary line among the top border of all stands and
4. the downward plane resulting from the imaginary line between the higher and farthest performers eyes level and the upper limit of the peripheral vision of the performers that are closer to the conductor.

Within the field of vision, the tip of the baton must permanently be moved within a restricted point or area, commonly known as *point or field of beating*. The point or field of beating must line up with the medium line of opposite stands on the conductor's right and left sides. This alignment allows the point or field of beating being in the ideal centre of the area between the heads of the two performers at the first stands on both sides of the conductor.

Regarding this issue, an orchestra member expects:

1. to have a *permanent* optimum view of the baton, from any point of the orchestra in which he is placed and
2. that the tip of the baton´s motion begins always in the same point or field, where he can find it in case of needing *to look* at it – that is, to fix his central view, not the peripheral one- in order to overcome any misdirection or short gap.

There is one kind of motion that allows these two conditions to be put into practice. This motion is the shift of the baton *always within the field of vision and perpendicular to the conductor's front plane*, that is to say, holding the baton almost parallel to the floor. *Always* must be underlined. Leaning the baton towards right or left tends to reduce visibility from the point of view of the musicians seated on the opposite side. The tip of the baton deflected upwards or downwards, projects energy over the field of vision or under it.

The placement of the arm-baton unit depends on:

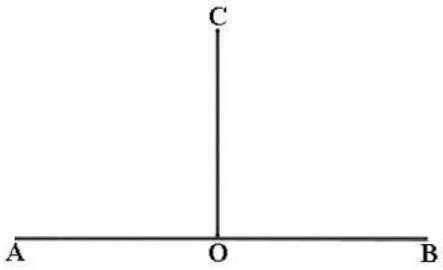
1. Conductor's physical features (height, arms length, hands shape),
2. The size of some auxiliary components (podium height, baton length) and
3. Circumstances of relative location (orchestra on the pit, orchestra on the stage in one plane, in different planes, presence of a chorus, etc.).

It would be ideal for the placement of the arm-baton unit to be *one and only one,* always the same, for each conductor, only in accordance with the needs of his *corporal being.* In that situation, the adjustments to each particular case would be made over the other components, as for example, changing the podium height. In practice, it tends to be impossible, as an orchestra does not count on as many podiums as demanded by the different heights of their conductors or their arm's length. Therefore, conductors should often make the necessary adjustments. Facing the necessity of adapting his placement, the conductor must take all the precautions so that the changes do not negatively affect on his posture and the arm-baton unit performance.

An apparently insignificant feature that requires special attention is the music stand´s height. In case its use is required, the stand must be positioned in a horizontal or almost horizontal plane, and in a height that allows the conductor to change pages having the forearm stretched out, without the need of bending the waist. Thus, the stand will not interfere in the baton's motions and will not make the conductor to perform anaesthetic bends.

The point or field of beating is the *zero point* for all the tip of the baton trajectories (Figure 5, "O", front view).

Figure 5.



"O" is placed slightly forward and on one side of the conductor. It is essential that each conductor determine which *his* zero point is. The proposed method to such determination is the following: in front of a wall, having the forearm bent at about 90º and the arm relaxed and next to the thorax, separate the tip of the baton from the wall about 5 cm, horizontally, moving it parallel to the floor over the inferior limit of the field of vision (Figure 5, "A" → "B"). This trajectory is mainly produced by arm abduction with a slightly forearm extension and an internal wrist flexion. The abduction ought to be made between two limits: the *proximal limit*, determined by the moment the arm is in contact with the rib cage (Figure 5, "A"), and the *distal limit* (Figure 5, "B"), determined by the minute the shoulder-blade starts rotating, what could be checked by touching the *acromion*, in the corresponding shoulder: *acromion* is the bony rim that is placed immediately over the shoulder joint. The *zero point* is exactly in the middle of such trajectory. The arm-baton unit remains slightly separated from the trunk, in a similar attitude of one who is starting the action of hugging somebody.

This baton placement contains psychological and kinesiological advantages. From the psychological point of view, to bring the forearm in front of oneself must be avoided: it denotes an unconscious desire to create a barrier, connoting fear or uncertainty. On the contrary, who opens his forearms –if showing his palms, much better- transmits the feeling of confidence, conviction and certain superiority as, on the one hand, shows there is no offensive weapon hidden in his arms and, on the other hand, openly offering his vulnerable areas (throat, heart, stomach). Like the ancestral meaning of the friendly gesture of one who moves towards another one with opened arms to give a warm hug: showing he does not hide any weapon and, at the same time, offering his vulnerable areas.

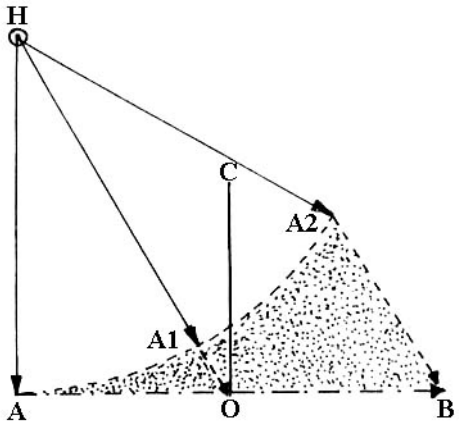
From the mechanical, kinesiological point of view, pulling out the baton in front of oneself makes the humerus make a *rotation* movement, which produces a head's position-change with regard to the shoulder joint, placing itself in a less favourable line up than the spontaneously adopted by the body, for example, with calm-walking movements. That is the ideal line up of arms in order to produce typical orchestral conducting motions. Therefore, pulling out the baton or the forearm in front of oneself must be avoided. This invariably happens when the conductor sets the point or field of beating just in front of him instead of placing it at his side.

Basic Pattern

HORIZONTAL PATTERN

See what happens during the absolutely horizontal travel of the tip of the baton over line "A" → "B" of Figure 5, keeping the two pre-fixed conditions: that the tip of the baton slides through a plane parallel to that of the front side of the body and that the shaft remains constantly perpendicular to that plane, that is to say, parallel to the floor.

Figure 6.



The tip of the baton in "A" - "A" is the internal limit point (proximal limit) of the horizontal slide of the baton. The arm is in *abduction*, in contact with the thorax side wall. The forearm is flexed at about 90° with regards to the arm and it is *pronated*, with the

palm towards the floor. The wrist is *stretched out*, the hand back lined with the forearm.[18] The baton´s shaft is lined up with the forearm and the tip is placed on "A".

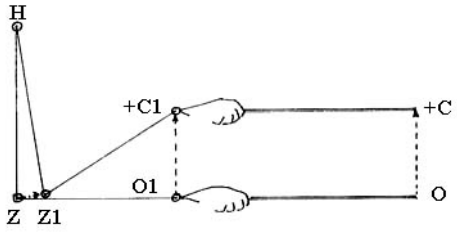
"A" → "O" slide motion of the tip of the baton - The arm begins an *abduction* movement of up to 30°, raising the elbow "A" → "A1" in an arch movement that contains "H" –shoulder's joint- as a fixed point. The forearm, *flexed* and *pronated*, accompanies the arm motion with an *extension*, expanding its angle in relation to the arm: this action takes place to compensate the "A1" -- "O" height produced by the slow rising of the elbow. At the same time, the wrist is in *horizontal flexion*, smoothly arching inwards, in order to keep the shaft of the baton perpendicular to the front plane of the body while its tip slides between "A" → "O". Both movements, that of the forearm and that of the wrist, balance the increasing trajectory difference between the elbow's raising and the horizontal slide of the tip of the baton (grey area in Figure 6).

"O" → "B" slide motion of the tip of the baton – The arm goes on with the *abduction*, the elbow rising "A1" → "A2". At the same time, the arm begins a smooth *flexion* -the elbow moves forward- to keep the tip of the baton sliding by the ideal trajectory. The forearm emphasizes its *extension* in order to balance the difference in height "A2" -- "B": as the pronation cannot be increased, the arm is lead to a minor *internal rotation*. The wrist increases its *horizontal flexion*, taking into account that the shaft of the baton keeps perpendicular to the front plane of the body.

The tip of the baton in "B" - "B" is the external limit point (distal limit) of the tip of the baton horizontal sliding motion. The arm ("H" -- "A2") has reached the maximum acceptable *abduction*; at the same time and depending on the conductor's body shape, it may be in a slightly *flexion* and *internal rotation*. The forearm is more stretched out, balancing the difference in height of "A2" -- "B", and line up placing opposite one another its distal extreme with point "B". The wrist has emphasized its *horizontal flexion*, to hold on the perpendicularity of the shaft of the baton. The sliding back motion ("B" → "A") generates the opposite coordinate actions.

VERTICAL UPWARD PATTERN

Figure 7.



The analysis of the vertical rising upward pattern begins with the tip of the baton in "O", as it would come off at the end of the sliding motion "A" → "O" in Figure 6.

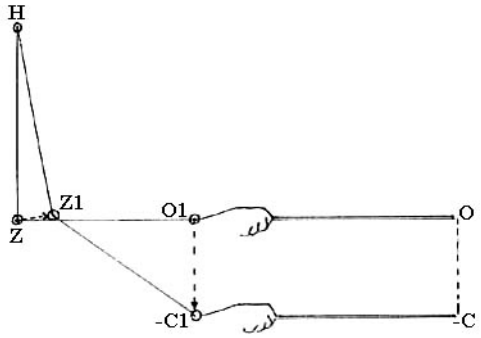
[18] According to different hand shapes, the basic grip may motive a slightly *hyperextension*, in which the back of the hand is deviated up to 15-20° of the line of continuity of the forearm.

"O" → "+C" slide motion in the tip of the baton - The forearm increases its *flexion* and, simultaneously, the wrist begins with its own. The wrist joint goes through "O1" → "+C1" parallel to that of the tip of the baton. In order to balance the shortening due to the emphasized *flexion* of the forearm, the arm begins a *flexion* too, moving the elbow's joint forward "Z" → "Z1", keeping in that way the tip in an upward motion, over the same plane, parallel to that of the front part of the body ("O" -- "+C" parallel to "H" -- "Z"). If the arm *flexion* does not take place together with the slightly elbow forwarded "Z" → "Z1", the shortening of the system due to the forearm *flexion* would result in a retraction of the baton's upward plane, of the same magnitude of "Z" -- "Z1".

VERTICAL DOWNWARD PATTERN

Figure 8 shows the diagram of vertical downward pattern.

Figure 8.

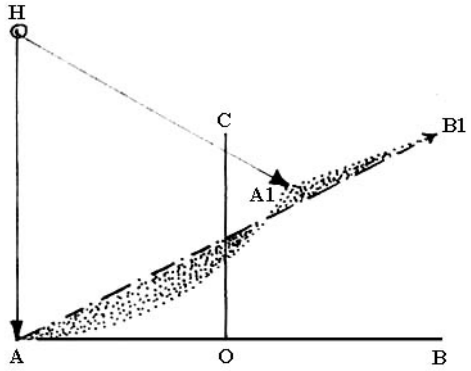


"O" → "-C" slide motion of the tip of the baton - As already seen, "O" is on the plane of the inferior limit of the field of vision and, therefore, it is theoretically inconvenient to produce any gesture under said plane. However, the presence of a tall conductor or that of a podium excessively high, results in a lower field of vision and demands lowering the point or field of beating. When moving the tip downwards "O" → "-C" the forearm is extended and the wrist begins a *hyperextension*. The arm as well makes a slightly *flexion*, sliding the elbow´s joint forward "Z" → "Z1". All that –it is always worthwhile to repeat it- to keep the tip sliding through a plane parallel to that of the frontal side of the body, while the shaft remains perpendicular to it all along the motion ("O" → "-C" parallel to "O1" → "-C1" and to "H" → "Z").

DIAGONAL PATTERNS

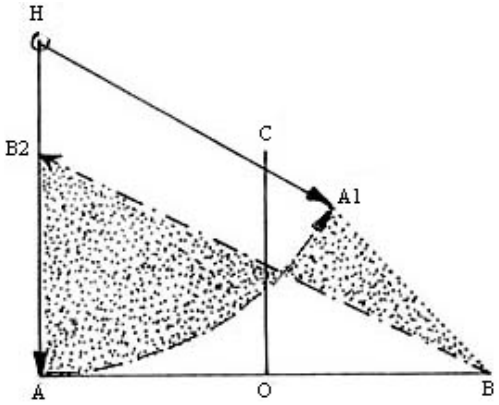
The straight slides of diagonal patterns require as well combined motions among shoulder, elbow and wrist main joints, in order to produce ideal trajectories with the tip of the baton.

Figure 9.



See pattern "A" → "B1" in Figure 9. As the arm produces the *abduction*, the elbow rises sideways "A" → "A1". The forearm must first emphasize its *flexion* to be later extended together with the wrist in *flexion* and the arm in a slightly *internal rotation*. Grey areas graphically represent the development of the motion to balance the straight diagonal trajectory of the tip ("A" → "B1"). The return "B1" → "A" generates the opposite motions.

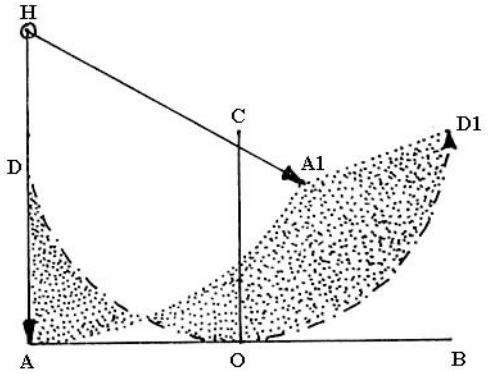
Figure 10.



In the case of "B" → "B2" pattern, balances are many more, as it could be seen by the larger grey areas.

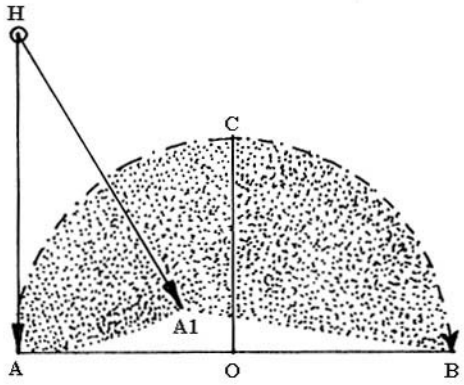
Curved patterns require joint actions that are more complex, as for the pair of agonist and antagonist muscles –with the auxiliaries neutralizer and stabilizer- coordinate their activity in a much more subtle way, restraining the influence of some of them in order to increment others without any solution of continuity. This characteristic of the curved pattern, the continuity, will be useful to implement the pertinent gestures for slow *legato*, of special hardship. Any trajectory of the tip of the baton that forms an angle –especially if it is an acute angle- implies a stopping point, at least temporarily, to proceed with the change of direction: it does not match with the desired sound continuity in the *legato*, which visual analogy is only possible by the curvature, the angles becoming round.

Figure 11.



Let us consider the curved pattern "D" → "O" → "D1" (Figure 11). With the tip of the baton in "D", the arm is in *adduction* (next to the side wall of the thorax) and in a slight *flexion* (the elbow slightly forwarded). The forearm is flexed as well as the wrist. While the arm begins the *abduction* –sideway slide of the elbow in a rising "A" → "A1" curve- the forearm begins an extension, as well as the wrist, following the downward pattern of the tip ("D" → "O"). Slowly and as the arm´s *abduction* increases, its *extension* take place –the elbow backwards- the extension of forearm and wrist is emphasized. The wrist begins *horizontal flexion* towards the body. The arm rotates internally and makes a slight flexion once again –the elbow forwarded- until it reaches point "D1".

Figure 12.



Let us see curved pattern "A" → "C" → "B" (Figure 12). The motion begins with *flexion* of forearm and wrist. The arm (lever "H" -- "A") makes a smaller *abduction* than in any other cases seen. The wrist emphasizes its *flexion* while rising "A" → "C", and producing an *extension* while descending "C" → "B", together with a *horizontal flexion*. As moving forward in the trajectory, the forearm is extended while the arm makes a slight *internal rotation*. See in Figure 12, the grey area, which shows the compensatory motions of joints between the shoulder and the tip of the baton.

In figures 9, 10 and 11, the intersection points between the rising pattern of the elbow "A" → "A1" in the three figures and the pattern of the tip of the baton "A" → "B1", "B" → "B2", and "D" → "O" → "D1", respectively, show the exact moment in which both reference points -elbow and tip- remain aligned for an instant. However, in the motion

corresponding to Figure 12, the elbow and the tip are only aligned in "A", that is to say in the initial position: their trajectories do not intersect.

Individualization and spatialization

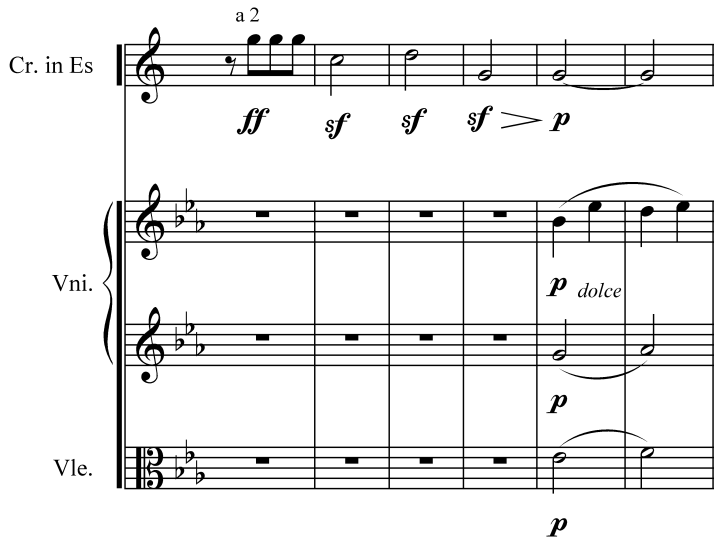
A baton is not a magic wand. The conductor gesture does not produce the sound *by itself*, but sets a communication with those who produce the musical sound by playing their instruments. The receiver of the message determines the gesture parameters: who and how many are, where they are placed, what instruments do they play. For example, one of the widespread precepts of orchestral conducting sets a relation between the gesture size and the desired sound dynamic performance. According to this precept, a large gesture induces a strong sound (*forte, fortissimo*), while a small gesture suggests the opposite (*piano, pianissimo*). Max Rudolf, author of an excellent treatise that was the best of its time due to its meticulousness and its abundance of examples, asserts this principle from the presentation of preliminary exercises:

> So far you have conducted these exercises ***p***[*iano*] or ***mp*** [*mezzopiano*]. Now repeat them ***mf*** [*mezzoforte*]. To do this, you will have to enlarge the size of your beat. Make your gestures about a third larger than those used for ***p***[*iano*]. (RUDOLF, M. 1950: *The Grammar of Conducting - A Practical Study of Modern Baton Technique*, New York, G. Schirmer, Inc., p. 12)

As a preliminary exercise and, in a general sense, it is correct to practice gestures of different sizes. What is incorrect is to *directly associate* the extent of the gesture with the dynamic, without considering other factors of essential importance: who performs the sound, how many persons are, which instruments do they play, where are they placed, what is the context of the orchestration, what kind of *energy* does the gesture transmit regardless of its size.

For example: The first motif of the second theme in the first movement of Beethoven´s *Fifth Symphony* is announced by two Horns with a ***ff*** dynamic and three ***sf*** in consecutive bars (cc. 59-62); immediately, the second motif is performed by all the strings, with ***p*** dynamics and a *dolce* inserted in the section of First Violins (cc. 63-66):

Example 17. Beethoven, *Symphony N° 5 Op. 67*, 1st movement, cc. 59-66.



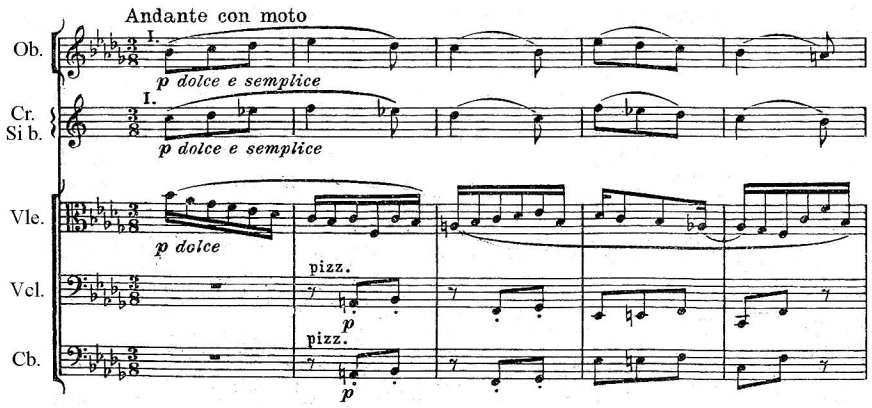
The two Horns produce a sound volume stronger than that performed by the strings, however the conductor´s gesture pushing the horn players to perform *fortissimo* must -or should- be of a smaller size –though with higher energy projection- than the gesture inducing the *piano dolce* sound of the strings. Why? :

1. Because *individualized* communication becomes more private and direct as the number of members of the receiver group diminish. The horn players are two while the string players are among 30 and 64, depending if it is a small, medium or large orchestra,
2. Because horn players always perform single, individual parts –that is to say, *soli*- what in general, tends to provide them a higher initiative grade than that of the members of the strings section, who are always members of a group that play in unison,
3. Because horn players are seated in front of the conductor, thus a simple glance by him is enough to establish communication. The string players, instead, are all around him up to the end of the stage, so the conductor´s gesture must *reach* –not only visual but psychologically- those who are seated further away.

There is another relation between orchestration and volume that must be considered at the moment to choose the gesture extent with which certain sonority will be induced. On the one hand, there are cases in which the variation of sound volume depends only on the performers' execution. It takes place when *a unique group of performers* must change its dynamics in playing, at a given point of the score. For example, in Brahms' Theme of *Variations Op 56a*, the same group of performers playing *piano* during the opening phrase (antecedent, cc. 1-5), is required to play *forte* or *mezzo-forte* in c. 6. In this case, a change in the size or strength of the conductor´s gesture makes sense in order to introduce a way of execution that makes the listener perceive the dynamic change desired by Brahms.

In other cases, a modification in the orchestration produces the change in dynamics and, consequently, its perception, in an almost independent way from the dynamic level of the performer´s execution. An example of this is found in the said Brahms' *Variations*, in the two opening phrases of the 4th variation:

Example 18. Brahms, *Variations Op 56a*, Variation 4, cc. 1-5.

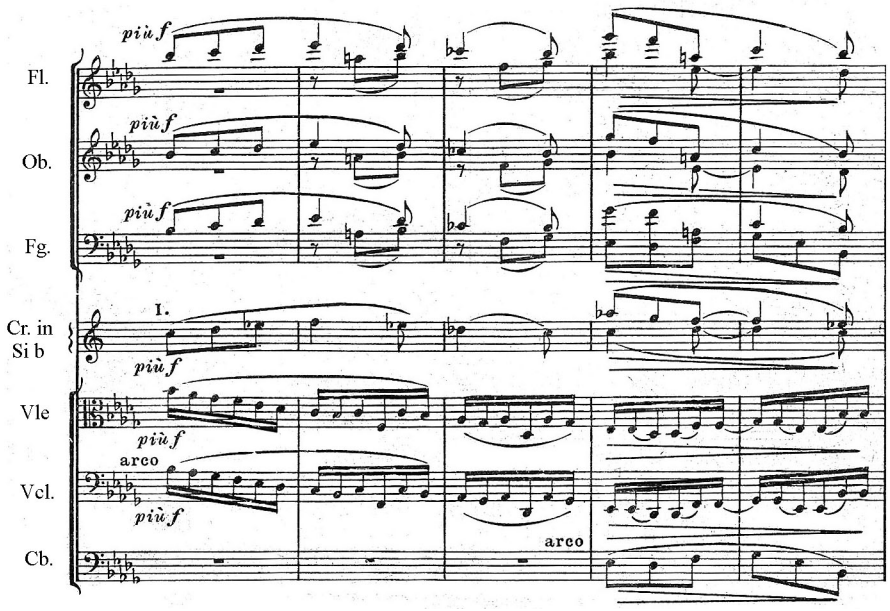


The texture presents three elements:

1. a melody in octaves between an Oboe and a Horn, marked by Brahms as ***p*** *dolce e semplice*,
2. a counterpoint in the Violas ***p*** *dolce* and
3. a discreet bass in *pizz*. of Cellos and Double basses just marked ***p***.

In the following phrase (bars 6-10) the direction *più f* appears in every instrumentalist line. At the same time, Brahms adds instruments: to element 1. adds two duplications, one of Bassoon in unison with the Horn and the other of Flute in the upper 8th of the Oboe; to element 2., a duplication of Cellos in the lower 8th of the Violas, without taking into account other compositional additions as a second voice to the first element, in charge of the second woodwinds:

Example 19. Brahms, *Variations Op 56a*, 4th variation, cc. 6-10.



To summarize: the additions and modifications in the orchestration determine *per se* that the listener will perceive *più forte* the consequent than the antecedent, although performers may execute both phrases with an identical *piano* dynamics. In this case, a larger extent in the conductor´s gesture as from c. 6 is not only redundant but may also induce to an exaggerated rising of the dynamic volume in the execution of *poco f*. The variation in the perceived volume depends much more on the orchestration than on the execution dynamics eventually induced by a larger size of the conductor's gesture.

The relation between the objective and symbolic thinking on the one hand, and the images or emotions on the other hand, influence as well on the issue of the gesture extent. According to Charlotte Wolff, the more that symbolic and objective thought creeps into images and emotions, the more subtle, segmentary and limited in number become the expressive movements. In a sensitive and cultured personality they are more varied and rich in quality the more they are restrained and reduced in quantity (size). From this one can appreciate the expressive power of great actors, who make use of a minimum of gestures to express a maximum of feeling.

This matter is related, broadly speaking, to the gesture *individualization* and *spatialization*. Individualization is related to the kind of receiver of the message. A conductor does not conduct *the orchestra* but conducts its members. For that reason, the communicative gesture must be in permanent adaptation according to who the receiver is. Soloist, for example, need a minimum of conducting, just hints, unless they request another type of guidance. Solos like the Flute´s beginning of the *Prélude à "L'après-midi d'un faune"* by Debussy, the long solo of Oboe of *Don Juan* by Strauss, that of Trumpet or Cornet of *Petrouchka* by Stravinsky and many others of the same or similar importance, should not be *conducted* in the strict sense of the term but, once the *tempo* is induced by the corresponding impulse, they must be rather *integrated* to the whole work and, if necessary, just *accompanied*.

The same happens with passages that are in charge of a small group of soloists and that may be *literally* performed as chamber music. *Literally* is emphasized given that the integrated chamber execution is a permanent ideal in every activity of playing music together, including symphonic music. In this order of fragments in charge of a small group of soloists, it could be pointed out the quartet made up of a Flute, an Oboe and two Clarinets of the second movement of Beethoven´s *Fifth symphony* (cc. 132-142), a really *orchestral cadenza,*[19] or in the large ensemble of woodwinds that accompany the long oboe solo in the second movement of Brahms´ V*iolin Concerto* (cc. 1-29). Any *over conducting* in these and similar passages generates *visual noise* and may constitute an annoyance rather than assistance for the soloists' performers that must play with certain freedom.

The group of strings´ conduction demands another attitude, a different body language. As the conductor deals with large groups, placed over an area worthy of consideration, his gestures and way of looking that usually comes with them must always aim and reach to the last members of the section. In that way, the members placed between those in the last section and the podium, feel included in the communication and being part of it. If the conductor sends his message to the first music stand of the section,

[19] The notion of *orchestral cadenza* belongs to Hans Swarowsky.

the other members in the same section will feel out of the scope of the message. This is, needless to say, akin to what happens between a teacher and pupils in a classroom, or between a lecturer and the audience, where the eye contact and the voice must always aim to those who are far away if the attention of all is desired to be caught.

Based on the above, the communicated message is not symmetrical, or at least it should not be, in passages that are clearly responsorial or antiphonal, in which a soloist or group of soloists and a larger group less differentiated are alternated. The conductor must apply different kind of gestures and send different kind of energy for one group and the other. The soloist or the group of soloists is just lead by *hint* while the accompanying group is actually *conducted*. As an example of this situation, we could mention the responsorial beginning of Pictures at an Exhibition, by Mussorgsky-Ravel, between the soloist Trumpet and a group of brass instruments (cc. 1-8), or the antiphonal fragments between woods and strings of the exposition´s final in the 2nd movement of Mozart´s *Symphony No. 38 "Praga"*, (cc. 45-50 y 132-137), or passages of identical characteristics in the 2nd movement of Beethoven´s *Second Symphony* (cc. 66-71 y 230-235).

Regarding spatialization, it was already seen that, in general, the tip of the baton must always work in a point or field of beating, so that to constitute a referential pacesetter for all the orchestra members in any moment of the progression of the musical work. However, it is not an overriding principle. It applies in *tutti* passages or when performers make up a heterogeneous group divided into different sectors of the orchestra. It may be modified when, during a considerable period, the performers belong to a unique homogeneous group, whose majority is placed in one sector. As for example, at the beginning of the fourth movement of Beethoven´s *Ninth symphony*. The initial fanfare (cc. 1-7) is in charge of the winds ensemble and the timpani. Immediately after, the Cellos and Double basses mark the beginning of the first *recitativo* (cc. 8-16). The conductor may then smoothly modify the point or field of beating, changing, in consequence the focus of energy emission, depending on which group of performers are the receivers of the message. Something similar takes place in that same movement as from the presentation of the *Freudetheme* (cc. 92 y ss.). During 24 bars only Cellos and Double basses perform, in the following 24 bars the Violas and the first Bassoon join them, right after and for the following 24 bars, the first and second Violins join too. In the end, (c. 164) the winds and the timpani join and the whole orchestra burst into a powerful *tutti*. The principle of spatialization requires the emission of energy focalization to be adapted to the consecutive incorporations of the different groups, until the whole orchestra is encompassed.

Basic body training

As regards the body awareness, the conscious mastery of the muscle tone, the posture, the handling of the unit arm-baton and the baton placement, there is a wide range of body exercises that are advisable for those who have not previously experienced any kind of body technique. The practice of these exercises is recommended not only as a previous stage to the practice of the proper skills of orchestral conducting, but also, once they are incorporated, as a way of returning to the source, with the aim of reacquiring the basic awareness of the body-self, the posture and the movement.

Exercise No. 1

Having some variations and adaptations, this first exercise is related to the experiences of Gerda Alexander, Therese Bertherat and Moshe Feldenkrais.

The first exercise includes two stages: the first is intended to stimulate and deepen an elementary body awareness; the second aims to induce the relaxation -that is to say, the lowering of the muscle tone- in order to, from that point, begin with the analysis and experience of posture and main movements of the gesture language, consciously adopting in each case the proper muscle tone which will tend to be the bare minimum to perform the desired action. The conscious mastery of the muscle tone is *conditio sine qua non* to fulfill the expected goals. In the second stage of the exercise, and by means of a muscle relaxation, it is intended to reduce the contraction and practically reach a state of inactivity or absence of any conscious muscle contraction.

The exercise requires to be lied down on your back on a plain and rigid surface, such as the floor, keeping the arms at the sides of the body and the palms facing downwards. This position allows, according to the shape and mass of the human body and the effect of gravity, to remain still without any need of the muscles to be actively participating. At the same time, the contact of the skin with the surface upon which one is laid down allows to easily perceive those parts of the body in which this contact takes place, and as from that point, widen and deepen the body awareness through those feelings.

Once in that position -lying down on your back on the floor- close your eyes, focusing your attention on the feelings that are perceived due to the contact of the body with the floor, mentally *screening* the body from head to toes. At each point of the itinerary, you should be focused and *feel* where the contact is produced, going along the edges of the contact area, trying to perceive the contact surface shape, its extension, weight and temperature perceptions, constantly comparing the two sides of the body –left and right- going from the heels to the calves, the back part of the knees, the muscles, the gluteus, the joints of the hip, the sacrum and the coccyx, the floating ribs, the spinal and lumbar back, the shoulder blades, the space between them, the fingers of both hands - phalange per phalange – the palms, wrists, forearms, elbows, arms, armpits, shoulders, the back part of the neck –cervical vertebrae- and the nape, up to the back part of the head. In that way, continue slowly, from head to toes and from toes to head.

After that, you have to focus your attention on those areas in which you do not feel the contact of the body with the floor. Try to perceive its extension and shape. Identify the feelings of weight and temperature, always comparing both sides of the body. While you do the exercise, observe whether any modification is detected in the perceptions of shape, weight or temperature, both in the contact areas with the floor, as well as in the non-contact areas.

Finally, you need to integrate all the fragments by means of the perceptions, both of contact and non-contact, as if it were a puzzle: you have to focus on trying to perceive the feeling of the outline of the entire body against the rigid surface, as if the back skin were completely stained with ink and the body were laid upon a surface of white paper, in which the color spots would indicate the contact surfaces. You need to *assemble* the puzzle, trying to visualize *in mind* the complete figure.

The stage that has been described does not take more than 12-15 minutes. At this point of the experience, due to the still position that has been adopted and the focus on the several perceptions, a considerable lowering in the general muscle tone will have already been achieved.

The next step consists in inducing the relaxation or the lowering of the general muscle tone. At this point, it is important to remember that the relaxation is a process that should be produced from the inside out, without any external movement. Once again, you will mentally go over the whole body, but this time, you will consider not only the back surface, but also the whole volume, starting with the toes. At each point of the itinerary, it will be induced the feeling that *the flesh is detaching from the bones*, as if everything that is adhered in every bone or joint -ligaments, muscles, etc.- would become fluffy, lose density, softly opening and falling to the sides. Dr. Alexander induced this feeling by means of using the image of a well-cooked chicken whose flesh easily detaches from the bones.

At this moment of the exercise, you should mentally go over each section of your body in its total volume, from the inside to the surface, finger per finger, limb per limb, inch per inch, with their curves and deviances, without leaving aside the head, its jaw, tongue, nose, eyes, ears, scalp, etc. You should pay special attention to those parts of the body that, due to their bending, are not in touch with the surface where you are laid down, for instance, the area of the lumbar vertebrae: in those parts, the muscular contractions that are more resistant to the attempts of conscious relaxation are often identified.

Finally, you need to coordinate the breathing rhythm with the frequencies of the corresponding heartbeats. To do so, it is necessary to get focused enough in order to clearly perceive the heart beats and then adjust the breathing to them, making the duration of each of the following four phases between 3 and 4 beats: inhalation - retention - exhalation - retention. The whole of this other stage, in its totality, takes another 12-15 minutes.

Frequently, at this point, a low muscle tone has been achieved, probably much lower than the moment the exercise started. To get back to the erect position, it is recommended to do it softly and slowly, without abrupt movements, remaining seated on

the floor for a moment before standing up slowly. This is proposed in order to avoid any slight circulatory imbalance that may cause a feeling of dizziness.

Exercise No. 2

Exercise No. 1 is autonomous. Exercise No. 2 is not, and it should be done after exercise No. 1, maintaining the same supine position of the first one. You need to go back to the erect normal position slowly, without abrupt movements, having your eyes closed and being aware, by means of the perceived feelings, of the changes that are taking place in the body from one position to the other, due to the effect of gravity, among other factors.

Once you are in the erect position, try to perceive the bones as the frame to keep the body supported, starting from the soles of the feet, having the body weight uniformly distributed along the length and width of the whole soles. Observe it oscillating in the front-back sense. When the heels tend to get raised, the line of gravity is displaced to the front. On the contrary, if the feeling of rising is perceived in the toes, the line of gravity is displaced to the back. Look for the posture in which the two tendencies are balanced, at least momentarily.

Continue experiencing the perception of the bone structure going over both ankles, shinbones and fibulas, the joint of both knees, the stems and heads of both thighbones, the joints of hips and pelvis. All this structure as a whole should be perceived as something that is *driving upwards*, towards the spine, like the force that is derived from the so-called "straightening reflex".

Now, you have to make a mental itinerary or *inventory* of the body, with your eyes closed, similar to the one in Exercise No. 1, paying attention to the feeling in the soles of both feet, to the way in which the body weight is distributed, in which the straightening reflex is perceived and how it is transmitted throughout the bones of the legs, hips, pelvis and spine, up to the cervical vertebrae. Try to perceive the elongated body without tension, between the soles of the feet, with a balanced weight between them and a point that is located at the back base of the neck, at the level of the fifth cervical vertebra, as if it were a string of a puppet inserted there driving the spine upwards. It should be checked that the muscle tone of the scapular waist -at the level of the shoulder blades, the collar bones, and the breastbone- remains low, in a state of relaxation, and as a consequence, both arms will be hanging along the body, with the wrists, hands and fingers completely relaxed.

Pay special attention to the muscular activity at the level of the legs and hips in order to keep the balance position support, to the small -almost imperceptible- processes of muscular contraction and distension that, in an automatic and antagonistic way to the force of gravity, restore the balance position when it is lost or modified. Go back to the perceptions that have been described in Exercise No. 1 to induce the muscular relaxation in all the body segments that are not engaged in the erect position support. Carefully observe the relation that exists among the three main factors aimed at this exercise:

1) the postural balance,

2) the idea of the frame to keep the body supported with elongation of the spine and

3) the conscious relaxation of the muscles of the scapular waist, arms and hands.

Exercise No. 3

In the final position of Exercise No. 2, that is to say, the normal erect position, the balanced body, the elongated spine and the relaxed scapular waist, with the arms hanging freely, you have to bend the right forearm up to the level in which it forms an angle of approximately 90° with the arm. Observe and check that this action is carried out with the minimum muscular contraction, maintaining the relaxation of hand and fingers.

In this position, the forearm is in pronation, that is to say, with the palm of the hand downwards. Pay special attention to the relaxation of the shoulder and triceps, the muscle that runs across the back part of the arm. This checking can be made by means of keeping the forearm bent and completely relaxed, using a ribbon, belt or string in order to support it, having this element under the wrist and held by the other hand. In that position, do the minimum necessary muscular contraction so that the forearm remains bent without any help: once the support element is taken away, there should not be noticed any change in the position of hand and fingers, nor any increase of tension in any point of the arm-unit.

The exercise goes on extending the wrist up to the level of having the back of the hand aligned with the forearm, while the fingers are maintained completely relaxed. It is noticed that, while the back of the hand is lifted up, aligning with the forearm, the fingers tend to slightly bend and curve, with the phalange II (distal) of the thumb getting closer to the phalange II (middle) of the index in an angle of approximately 90°. Thus, the thumb can easily be supported against the lateral side of the index, at the level of the joint that is located between the phalanges II and III (middle and distal), thus forming the so-called *precision paw*. The baton is placed at that point. The shaft rests in the interphalangeal joint, while the thumb is opposed to it. The fingertip of the thumb relies partly on the shaft and partly on the handle. The handle remains sustained on its near end –the one that is closer to the body- by the bent middle finger. The ring finger and the little one do not participate in the grip and they remain relaxed. The length of the bent middle finger should determine the optimal length of the handle, which, if it is supported in the described way, it should not surpass the phalange III of the bent middle finger: if it does, it may complicate the free movement of the baton.

This exercise consists of repeating the detailed steps over and over again, until the actions can be performed in the most natural way, only applying the minimum necessary muscular contractions for each step.

It should be notice the importance of the thumb in the resulting grip. The thumb is the most important finger of the hand, due to its ability to oppose to the other fingers.[20] In this exercise, you can imagine that the baton is the third phalange that the thumb lacks.

[20] Experts on accident insurance estimate the value of the thumb at half that of the whole hand.

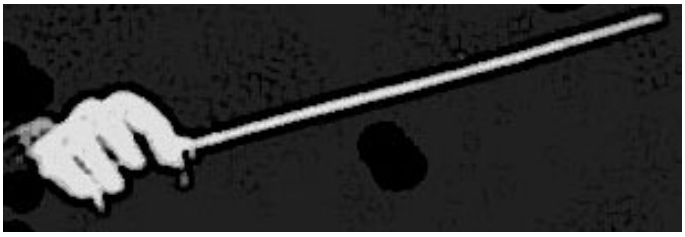
For a correct grip, the interphalangeal joint of the thumb should be bent, because its extension or hyperextension may cause unnecessary and detrimental muscular tension.

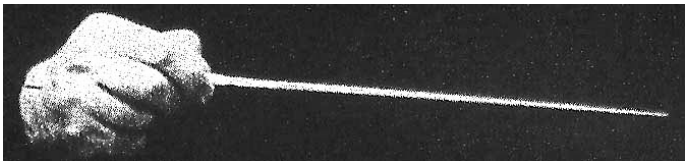
Any observer may check that the orchestra conductors adopt countless ways of holding the baton and each of them could surely support the reasons for their particular way. The one
proposed here in this exercise is based on one principle: it is the most economic, spontaneous and natural configuration. Everything has been largely checked in the practice, something that has allowed us to corroborate the versatility, ductility and flexibility of this way of grip, which Elizabeth Green denominates as "the basic grip".

Figure 13. Basic grip. a) Wilhelm Furtwängler's hand (phoyo by R. Hauert); b) Joseph Keilberth's hand (no photo credits); c) Igor Markevitch's hand (no photo credits), d) Bernard Haitink's hand (photo by Mark Harrison).

a)


b)


c)


d)


A variant of the basic grip is the so-called "light grip". In this kind of grip, the middle finger replaces the index, and the ring finger replaces the middle finger. The thumb is always opposed to the joint between the phalanges II and III of the middle finger, where the baton shaft rests. The index remains free and relaxed, relying on the shaft in a variable angle, according to the shape of the hand. As its name shows, this kind of grip is particularly apt for the induction of a kind of *leggiero* sound, without greater density or intensity, for instance, in a light *staccato*.

Figure 14. Light grip. Herbert von Karajan's hand (photo by R. Hauert)

Exercise No. 4

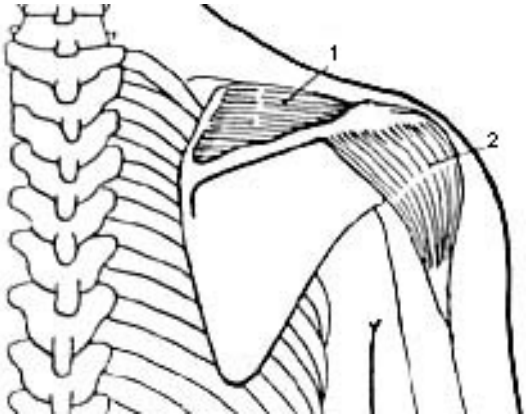
The aim of this exercise is to raise awareness of the mechanical unit arm-baton performance, analyzing the basic trajectories of the baton that can be verified at its tip. Considering that the tip is the point to which the communication energy is directed, the whole body should always adapt to what is intended to be effectively performed at that part. To achieve that goal, it is a good training for the imagination and perceptions to practice this exercise *mentally switching the order of causality*, that is to say, imagining and perceiving that the arm-unit is moved *because* the end of the baton moves from one point to another, as if the movement *were effectively initiated by the tip of the baton* and the arm-unit *were adjusted after it, following it*, as if it were hold by the invisible threads of a puppeteer. In the author's experience, this fantasy helps to adapt the muscular tone at its proper and necessary extent in order to do the joint actions that produce the movements, eliminating the excess of muscular contraction that, generally, cause negative tensions and undesired trajectories.

In the normal erect position, in front of a wall, having the front side of the body in a parallel position to it, and the forearm being bent at approximately 90°, holding the baton as described in Exercise No. 3, so that its tip stays at approximately 2 cm. from the wall, you have to take a quick body inventory, mainly checking the weight of the balanced body upon the soles of the feet, the elongation of the spine, the relaxation of the scapular waist and the minimum tension in the arm-unit. With the tip of the baton 2 cm. away from the wall, freely *write* or *draw* straight, curved, horizontal, vertical, diagonal, spiral trajectories, and laces, geometric figures, etc., checking that the baton, in its movements, *remains always perpendicular to the wall* and, consequently, also perpendicular to the front side of the body and parallel to the floor.

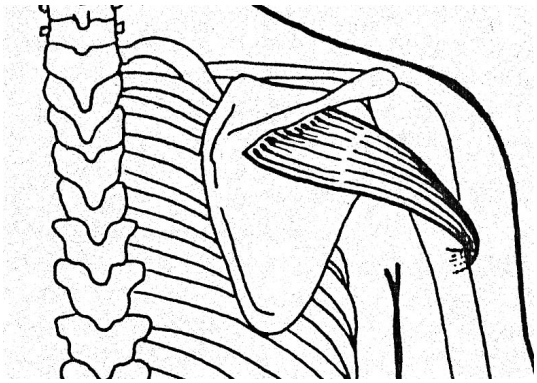
To perform the horizontal movements, you need to take into account that, among the abductor muscles of the humerus, that is to say, those that allow the stretching of the arm apart from the axis of the body, raising the elbow, the ones that are peculiarly important are the *supraspinatus* and the middle portion of the *deltoideus*, that are indicated as 1 and 2 in Figure 15 (a).

Figure 15. a) 1. Supraspinatus, 2. Middle portion of the deltoideus; b) Back portion of the deltoideus.

a)



b)



The *deltoideus* is a strong abductor, but it cannot start the movement, as its angle of traction is practically parallel to the humerus, therefore, it is the contraction of the *supraspinatus*, which is inserted in the head of the humerus, the one that drives it towards the *glenoid cavity* in the joint of the shoulder, changing the angle of the humerus (approximately between 0° and 30°) and thus, benefiting the action of the *deltoideus*.

This notion is of great importance for the performance of the horizontal trajectory of the tip of the baton, since that action should be initiated *from the supraspinatus*. That is why it is useful to check the mobility of the *acromion*, that can be felt resting the free hand palm on the shoulder of the mobile arm, in such a way that it simultaneously touches the clavicle and the acromion of the scapula (bone border that is immediately located over the joint of the shoulder). The necessary movements to produce the tip of the baton horizontal slide *should be limited to the point in which an elevation in the acromino-clavicular joint starts to be felt*, because that elevation indicates the beginning of a rotation of the shoulder blade with the participation of the superior portion of the *trapezius* and, consequently, the change of orientation of the shoulder joint, which, from that point, starts to function in a less favorable position to maintain the bare minimum muscular tension.

The Impulse

"Impulse", from Latin *impulsus*: action and effect of impelling. "Impel" from Latin impellere: to push into motion, incite, stimulate. In orchestral conducting, we call impulse to the *gesture immediately preceding the issuance of sound, inducing it*. It is the quintessential gesture that decides and defines the beginning of the work or a fragment after a stop or a pause. It is also the gesture that during the session causally anticipates the desired effect at a given time (an accent, a dynamic or *tempo* change, etc.). And it is also the gesture that, referred to as *cutoff* -but with the same mechanical principle as the start gesture- determines temporary or permanent cease of the sound emission.

The impulse is the essence of gestural technique applied to orchestral conducting, because its purpose is to *induce* the sound production, influencing or suggesting the desired effect. It cannot be stressed enough that *simultaneously* as the sound is being emitted, the conductor cannot do anything to change it. Considering basic communication logic, any information (cause) that should have an *effect* on the performance -be it merely formal or expressive- must be received by the performer before the sound is emitted. The conductor's gestural message that seeks to induce a certain effect must be seen, decoded – i.e., interpreted-, so that the performer fulfills the required psychophysical actions to play his instrument and obtain the desired sonorous result. No gesture or body motion made by the conductor *contemporaneously* with the emission of sound shall influence the performer, regardless of the *visual effect* it may have on the viewer-listener.

That is the difference, the radical difference, between orchestral conducting and other disciplines that integrate music and gesture, such as dance or body language. In these, the gesture *accompanies or is deduced* from sound. In orchestral conducting, the gesture *anticipates and induces* the sound. And that is the impulse role: to provide information to the performers, who, indeed, produce sound. Such information is usually an *aide-mémoire* of the conventions established in rehearsals, but can also induce the execution of a non-pre-established effect during the work preparation. The information obtained through the impulse is often essential, sometimes necessary and occasionally convenient, and applies to situations such as:

1. The precise moment at which the sound should begin (initial *when*),
2. The *tempo* or speed of the events that immediately follow the beginning of the sound emission (*how fast* it goes),
3. The qualitative features of the sound to be produced: its volume, attack mode, character, etc. (the *how*),
4. The discourse articulation (punctuations, breathings, etc.),
5. The precise moment at which the sound must cease, at the so-called *cutoff* (the final *when*).

The inclusion of the word *impulse* in the lexicon of orchestral conducting is apparently credited to Prof. Mariano Drago, who inaugurated the first university lecture on orchestral conducting in Argentina in the nineteen-forties, at the Universidad Nacional de La Plata. As reported by Prof. Drago himself, when he began teaching in Argentina, he encountered a language gap, as there was no term in Spanish that would adequately denote the multiple

functions carried out by this gesture. In his translation of Hermann Scherchen's classical text Roberto Gerhardt uses *golpe al aire,* but in fact this terminology did not take root. The term *levare* is commonly heard among conductors and performers when referring to this gesture. This is incorrect, given that *levare* is an Italian word that, strictly speaking, means *upbeat*. Previtali refers to *levare* as part of the trajectory of a metric pattern and immediately calls *gesto che precede l'attaco* to what we call impulse. Rudolf mentions *preparatory beat*, as well as Green and Labuta but does not seem convincing. *Preparatory gesture* is also unsatisfactory.

What is indeed preparatory is the motionless *attitude* adopted by the conductor when he gets ready for his task. That immobility effectively separates routine movements from meaningful movements with musical -and esthetic- importance of the conducting itself. Furthermore, such motionless attitude anticipates the expressive feature of what will follow: it is the spiritual attitude that generates the posture, and from the posture, the gestures that will occur.[21] The impulse *is already* a conducting gesture, not a mere preparation: it is the silent gesture leading to the performer's sound producing gesture that, in a split second, will produce the desired sound. In German-speaking countries, musicians often say aphoristically, *Gut dirigieren heißt einen guten Auftakt geben* (conducting well means to give a good *Auftakt*), but *Auftakt* in German, as *levare* in Italian, means *upbeat*. According to Prof. Drago, the terminological problem was finding a term that would distinguish *upbeat* -which is a constituent part of a musical motif- from the gesture that induces the beginning of the music itself. If a musical motif begins with an upbeat or *levare*, the use of this word in reference to the gesture that induces the sound production of such motif results in a semantic construction of dubious clarity and poor language quality: to give an *upbeat* for the execution of an *upbeat*.

As noted, the term *impulse* has a purely mechanical meaning: *to push into motion*. But at the same time, it bears a wide range of emotional and sensitive connotations: instigation, suggestion, incitement, and stimulus. Through the term *impellere* –of which *impulsus* is the participle- the connotations are to induce, to move, to stimulate, to provoke. Therefore, the adoption of the term *impulse* is appropriate, accurate and useful, as it denotes and connotes all the mechanical and expressive effects that characterize the gesture to which the name applies.

The first mechanical purpose of the impulse is to establish *when*: the precise moment, at which the desired sound should begin, with the perfect *ensemble* of the instruments involved. When the work starts or restarts after a pause, the impulse must establish accurate coordination and synchronized precision among all performers. The use of the concept *attack* – to refer to the moment in which the player performs the necessary physical actions to produce the vibration that will turn into sonorous sensation, whatever the instrument- has been avoided and instead, the sentence *the moment when the sound must begin*, that is to say, the moment when *the instrument acoustic response* is perceptible for the listener, has been preferred. An inevitable difficulty to achieve precise

[21] The duration of the preparatory gesture or motionless attitude is crucial to determine the peak of attention from the orchestra members and eventually, the audience: if this attitude lasts less than necessary, it is possible that some performer may not be mentally and physically ready to start or that the room has not silenced yet. On the other hand, if the attitude is extended beyond advisable, the attention starts to fade. It is hard to specify the exact moment: the conductor must develop the necessary *feeling* to perceive it.

synchronization among different instruments, especially winds, lies in their various response times. The response time of each instrument depends on the means that causes the air column to vibrate (lips, reeds, etc.) and the air column volume contained in the instrument. The adjustment difficulty in joint attack is overcome by the performer's experience that, based on his deep knowledge of the instrument -and, consequently, of all its *tricks*- adjusts the time of the attack so that the response occurs at the moment determined by the conductor's impulse.

The impulse that induces the work beginning is like an imperative *does it!* that distinguishes the common facts from the aesthetic, musical fact that is the work execution. Its mechanics is determined by a relationship of trajectory, speed and duration measured through the tip of the baton. That relation should generate in the observer-musician the certainty about when his instrument must produce the corresponding sound.

Since it is an eminently temporal issue, it will be useful to recall a few concepts related to the music temporal evolution:

1. A fixed measuring unit which is often associated to the so called *pulse* by the traditional theory is required to measure the temporal evolution and rhythmic phenomena of the musical discourse;
2. The so-called *pulse* is a primary concept with no temporal dimension (duration), in the same way that a geometric *point* has no spatial dimension.
3. The interval or time *lapse* between two consecutive pulses is commonly called *one beat,* and the grouping of *x* beats or isochronous time lapses is called *bar*.

In the impulse carried out by the conductor to induce the start of the work -or restart after a pause- the duration of the trajectory (rectilinear, elliptical, circular, etc.) at the tip of the baton, measured as the path between a starting point and return to the same point in space and executed between two consecutive isochronous pulses, provides the idea of the duration of *one beat*. The departing moment from one motionless point is *the first pulse*, which marks the beginning of time measurement. The moment of return *to exactly the same point* –and not *another one* placed higher, lower, to the right or to the left- is *the second pulse* which marks not only the end of the measurement but also determines the moment when the sound should begin. The duration of the departure-and-return trajectory is the duration of *one lapse* of the bar where the musical idea falls within and therefore, prefigures the duration of the subsequent beats. This simple operation is used to impel the beginning of a musical idea or motif, which starts *in* one pulse. With some variations in the trajectory and/or energy release, the same principle applies to impel the start of musical ideas or motifs that begin *between* pulses, or, equivalently, in a fraction of a beat.

Finally and accordingly adapted to the local circumstances of an ongoing musical work, the *impulse* technique is used for the entries of various instruments or groups of instruments, which join the discourse, and for the integration of the orchestra with a solo discourse in a *concertante* or a *recitative* work.

Action and reaction

There are two basic types of impulse: the *action* impulse and the *reaction* impulse. The difference between them is the same as the functioning of a leg when walking or jumping. In the act of walking, the foot is lifted by the coordinated action of the whole joints and levers system originated in the hip, it moves and advances. In the jump, the action is performed against a surface, e.g. the floor: there is a strong contraction of the hip, knees and ankles' extensions, and if the surface on which the feet rest is not elastic and allows the energy to be transmitted downward, the body will rise by reaction: when jumping, the energy is conducted *downwards*, but the effect is produced by reaction, lifting the body.

In the *action* impulse, the tip of the baton sets the point in space; it rises and returns to the same point, as the foot returns to the floor when taking a step. In the *reaction* impulse the fingers that hold the baton or the corresponding wrist perform an *almost imperceptible* flexion -fast, instantaneous- which impels the tip of the baton slightly downward: if we imagine that the tip of the baton rests upon an inelastic surface and cannot move downwards, the energy is reversed, producing a slight forearm flexion, so that the tip of the baton lifts up in the space, to fall back to the starting point. The *feeling* perceived in the arm unit is roughly similar to that perceived in the leg unit when performing a jump.

Each of the described impulses is applied to specific situations. The first impulse (action) is preferably used for beginnings where the strings play with *arco alla corda* in long notes or "singable" passages in moderate *tempi*, when an overly defined attack is not desirable. The second impulse (reaction) must be used when the strings play *pizzicato*, or in any of the *springing* bow variants, or when there is a harsh accent. It is also, invariably used when trying to adjust wind instruments with each other or with the strings. Remember that even if this is not perceptible, all wind instruments require some sort of tonguing to cast their sound (*ta-*, *tu-*, *du-* syllables). The production of such syllable requires that the conductor performs a reaction impulse exactly like that used for strings *pizzicato* or for a percussion strike because the physical action needed to produce the sound (tonguing) is similar to the action of *pizzicato*, though well executed, the tonguing itself is imperceptible.

Preparing for the impulse - Neutral gesture

In some contexts it is advisable to prepare the impulse by preceding it with a neutral gesture –*without* energy release- that starts in a previous pulse to that where the actual impulse (gesture *with* energy release) occurs. This resource is applied with advantage, for example, to initiate movements in fast *tempi* that start in a fraction of one beat or bar in a *beating in one* context –as in the *scherzi* of Beethoven's *First, Second, Third, Fourth, Fifth, Sixth and Seventh* symphonies- but can also be used in a variety of other contexts.

The advantage of this resource is that, by setting a previous pulse to that of the impulse, it gives musicians an additional reference point to specify and clarify the work *tempo*. This gesture must be absolutely *neutral* and in *tempo* with the music that follows, so it should not transmit the slightest feeling of energy release or create contradictions

with the duration of the next impulse that must, however, transmit the feeling of a sudden release of energy.

The preparatory beat can be made either with the baton, with the free hand, with both hands, with one or both elbows, etc., and its trajectory is, sideways.

The impulse in the offbeat

It is absolutely necessary to digress and reflect on one feature of the sight-reading mechanism, either when reading a literary text aloud or reading a score while performing it. In both cases, the reader's sight moves across the text line in advance, i.e. ahead of the word being stated or the note being executed.

In music reading there is a *pure state* of sight-reading, which can only be achieved by the combination of a previously unknown text and technical difficulties that do not require a special skills development, which may delay the execution process. Among many others, moderate *tempo*, style knowledge, the regular structure of discourse articulation, the stylistic consistency of the text harmonic layers or rhythmic formulas, the presence of units that can be read as a whole instead of note by note (scales, arpeggios, etc.), are some of the elements that facilitate the mechanics of reading**.**

In an orchestral performance, it is very rare to find the ideal conditions for a 100% pure *sight-reading*. Such conditions can only occur at the very first reading of a completely unknown text to all members of the orchestra, that everyone receive simultaneously and are unable to learn its individual parts before starting the joint task. In these experimental conditions, laboratory tests have been made to measure the speed of music reading and the ability to anticipate to the read text execution, and they showed that a professional musician could read roughly *seven notes* ahead of the note he is actually performing at a given time.

Such slight diachronic between reading and execution produces an effect, which, for lack of a better term, may be called *execution inertia*. One expression of this effect is that, in an abrupt cutoff -the conductor interrupts the work rehearsal to give an indication, a power failure suddenly leaves the orchestra in total darkness, the part suddenly falls from the stand, etc. - the musician will almost certainly perform effectively the notes he had read before the cutoff or interruption (*input*) occurred. The psychomotor mechanisms needed for the execution were already activated by the information displayed earlier, and the notes that were read and fixed in the mind are inexorably executed.

The inertia phenomenon can be advantageously used during the work execution using the *impulse in the offbeat*. This technique entails:

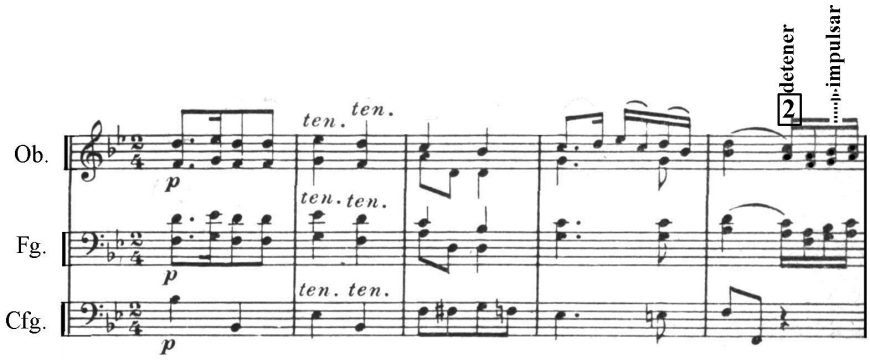
1. Momentarily pausing the baton trajectory during the first fraction of the *beat* (the first half or the first two thirds of the beat, for example), dissociating this fraction from the next and
2. Effectively performing the impulse with the duration of the next subdivision value (half -the offbeat- or a third of the beat).

The described technique is useful to properly induce

1. The end of a phrase and its connection with the next one
2. A sudden change in dynamics
3. The accuracy of an attack
4. The duration holding of a sound
5. A sudden change of the *tempo* or bar
6. The adjustment of an orchestral accompaniment with a soloist

See some examples of this technique:

Example 20. Brahms, *Variations Op 56*a, Theme, bars 1-5.



The *Theme* of Brahms' *'Variations on the St Anthony Chorale' Op 56a* presents several relevant cases (Example 20). In bar 5, the opening phrase ends in the first eighth note of the second beat: in the meantime, Oboes and Bassoons continue their lines in sixteenth notes, prolonging a *link* which connects this phrase with the next one, suddenly changing the dynamics of wood and string sections, from *piano* to *forte*. The the baton is beating in quarter notes: at that bar, after striking the first beat, the baton moves towards the center of the scheme (point "O" in Figure 5), pauses at the third eighth note and goes up vertically at the fourth note with the *reaction impulse* and inducing the next sudden *forte*. The advantage of applying this technique lies in:

1. Articulating clearly the end of the phrase, separating it from the link to the next one and
2. Not inducing Oboes and Bassoons to the execution of an inexistent *crescendo*.

Similar situations occur in bars 10 (phrasing articulation and sudden change in dynamics), 14 (*idem*), 18 (*idem*).

The slow introduction of the first movement of Beethoven's *First Symphony* presents other illustrative cases (see Example 21). According to Beethoven's metronomic marking, the section should be conducted by beating eighth notes. It is always difficult to adjust the string section *pizzicati* with the woods *fortepiano* attacks. This difficulty is reduced if each of the chords of the mm.1-3 is *impelled in the duration of a sixteenth note*.

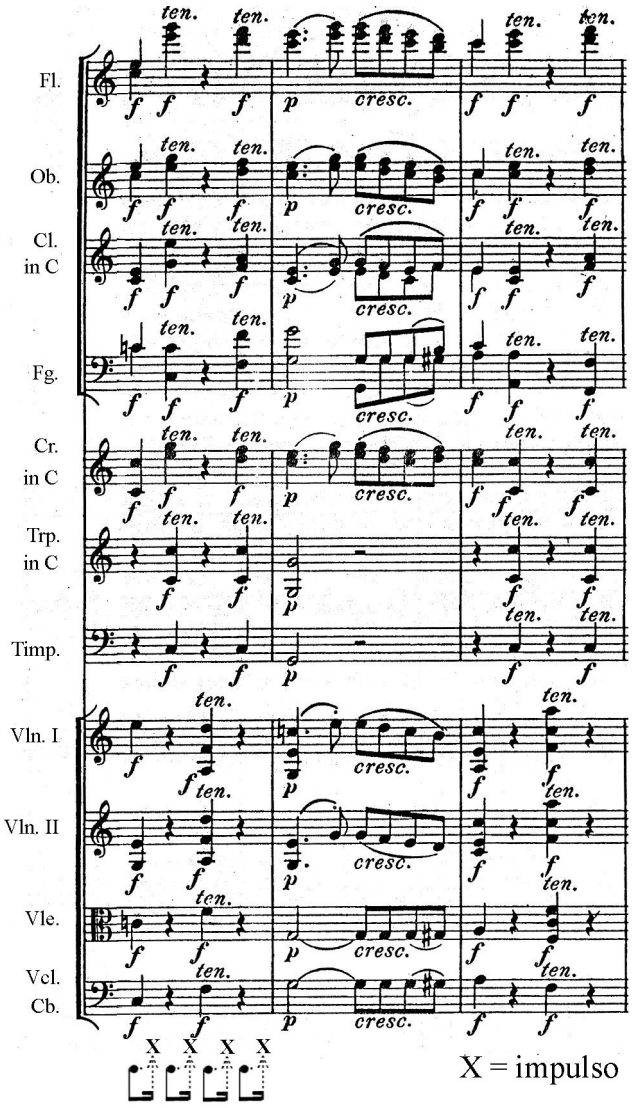
In bars 8 and 10 there are antiphonal chords between the string and winds sections, with the duration of a quarter note and a *tenuto* marking on the score: the baton trajectory stops during the first three sixteenth notes of every *beat* and impels upon the fourth sixteenth note, leading each chord to lengthen its duration to the maximum.

Between bars 8 and 9, this technique is used for *not* inducing a *decrescendo* in winds, before the sudden *piano* of the first beat of bar 10. In bar 12, the baton pauses on the fifth eighth note of the bar; then performs two chained movements in the subsequent *Allegro con brio tempo*:

1. A *neutral* horizontal movement (with no energy) to the right and
2. The upwards *reaction impulse*.

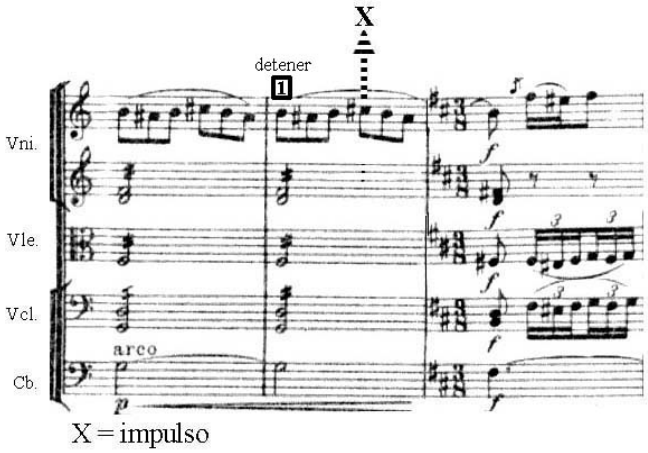
This chained *neutral-impulse* movement is performed upon a fractional value within the last beat of the last bar of the *Adagio molto* Introduction and it is used to induce the execution of the thirty-second-note upbeat of the string section in the duration that this motif will acquire in the subsequent *Allegro*.

Example 21. Beethoven, *First Symphony Op 21*, first movement, cc. 8-10.



The 2nd movement of *Sheherazade* Op 35 by Rimsky-Korsakov, between bars 328 and 347 (2/4 meter signature), due to the speed of the metronomic marking (♩ = 152) and the texture (*soli* with string tremolos) is usually conducted *in one* (one beat per bar). The melodic figure of the *soli* is neighboring tones on eighth-note triplets. In bar 348 (3/8 meter signature), due to the texture change (polyphony in the string section) it is advisable to conduct at *three* (three beats per bar): the above eighth-note triplets become sixteenth-note triplets, maintaining the same temporal *ratio*. The technical solution lies in stopping the baton in the first quarter note of the last 2/4-meter signature and impel upon the second quarter note, which equals an eighth of the following bar:

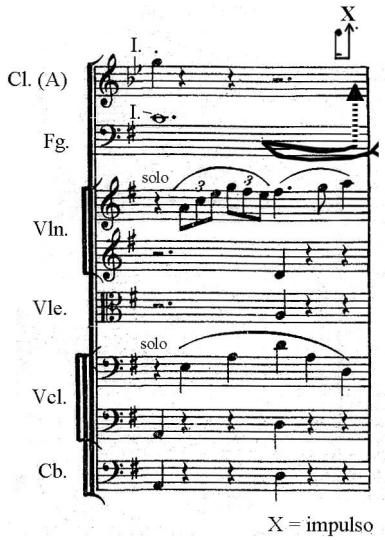
Example 22. Rimsky-Korsakov, *Sheherazade Op 35*, 2nd movement, cc. 346-348, string section only.



In bar 347, the baton trajectory stops during the duration of the first quarter note and rises vertically in the second quarter note, impelling the duration of the eighth note of the next bar, where it begins to be conducted *at three*.

The first movement of the same work, between the letters C and D (6/4 meter signature) is conducted *at two* (two beats per bar). At that point there is an outstanding violin *solo*, accompanied by a Cello *solo* and a soft orchestration. A bar before **D,** it is common –and acceptable- for soloists to make the slightest *stentato* before *tutti*. The baton suggests a subdivision of the second *beat* of the bar, it stops its trajectory in the fifth quarter note (soloists continue playing by inertia) and the baton rises again vertically by reaction, impelling the first beat of the bar of the letter **D** (*forte* entry of Horns, *tutti* entry of Violins, etc.). This impulse is produced imperceptibly after soloists have attacked the sixth quarter note of the bar and has the same duration as a quarter note of bar **D**, where again it begins to be conducted *at two*.

Example 23. Rimsky-Korsakov, *Sheherazade Op 35*, first movement, c. 101.



The impulse in instrumental or vocal accompaniment - The *recitativo*

Special consideration deserves the impulse applied to instrumental or vocal accompaniment and, within this category, the *recitativo*. First and as for the vocal and instrumental soloists, it should be noted that while the conductor is the ultimate musical responsible for the works he conducts, by virtue of which he is actively involved in the preparation of the works of which such soloists take part, he must generally give them the predominance when it comes to interpretative terms. When this happens, the conductor's mission is to integrate the orchestra into the soloist interpretative proposal. It is rightly so because usually the soloist has played or sung his concert, aria or *Lieder* cycle many times in his career, perhaps frequently for many years before the occasional collaboration with the conductor in turn.

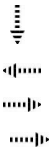
Opposite to opera, where the diversity of factors requires -as in the symphonic repertoire- the conductor to be the key element of musical conceptual unity, so the singers individual preparation is within his scope. This is achieved through the cooperation of répétiteurs, and even the intervention of the conductor himself playing the piano, should he have an appropriate knowledge of the instrument.

In soloist works, the conductor may -with great discretion and if it is inevitable- propose some slight variation in the interpretative concept proposed by the soloist, but it is highly likely that the soloist does not comply with it and sticks to -and rightly so- his version without any changes. In this case, the conductor must be flexible with the performance and adapt the gestural resources that ensure the conceptual unity and perfect adjustment among all those involved. The vocal recitative poses additional problems in the opera, when the stage action, the characters movements, small delays or advancements in entrances, exits or replicas may cause musical *tempo* variations.

In *all* cases of accompaniment, the conductor must know the existence of, and abide by, what is often called the *trigger* note or syllable, i.e. the sound or syllable that triggers the impulse to produce the orchestral response at the precise moment that is required to perfectly fit with the soloist. The deep and complete knowledge of the solo part and above all, of the text in vocal works, is essential for the correct location of the impulse, as is also the instantaneous muscle response of the arm-baton unit, reacting to the aural detection of the aforementioned *trigger* note or syllable and moving along with it.

As the conductor acquires the ease that only comes with the experience, it is advisable that he marks in the score not only the *trigger* note-syllable, but also the direction to be followed by the impulse, that will correspond to the *beat* of the bar in which the impulse is performed. See, for example, the use of this methodology in the initial bars of Recitative of the No. 8 *Finale* of the 1st. Act of Mozart-Schikaneder's The Magic Flute (bars 39 and ss.)

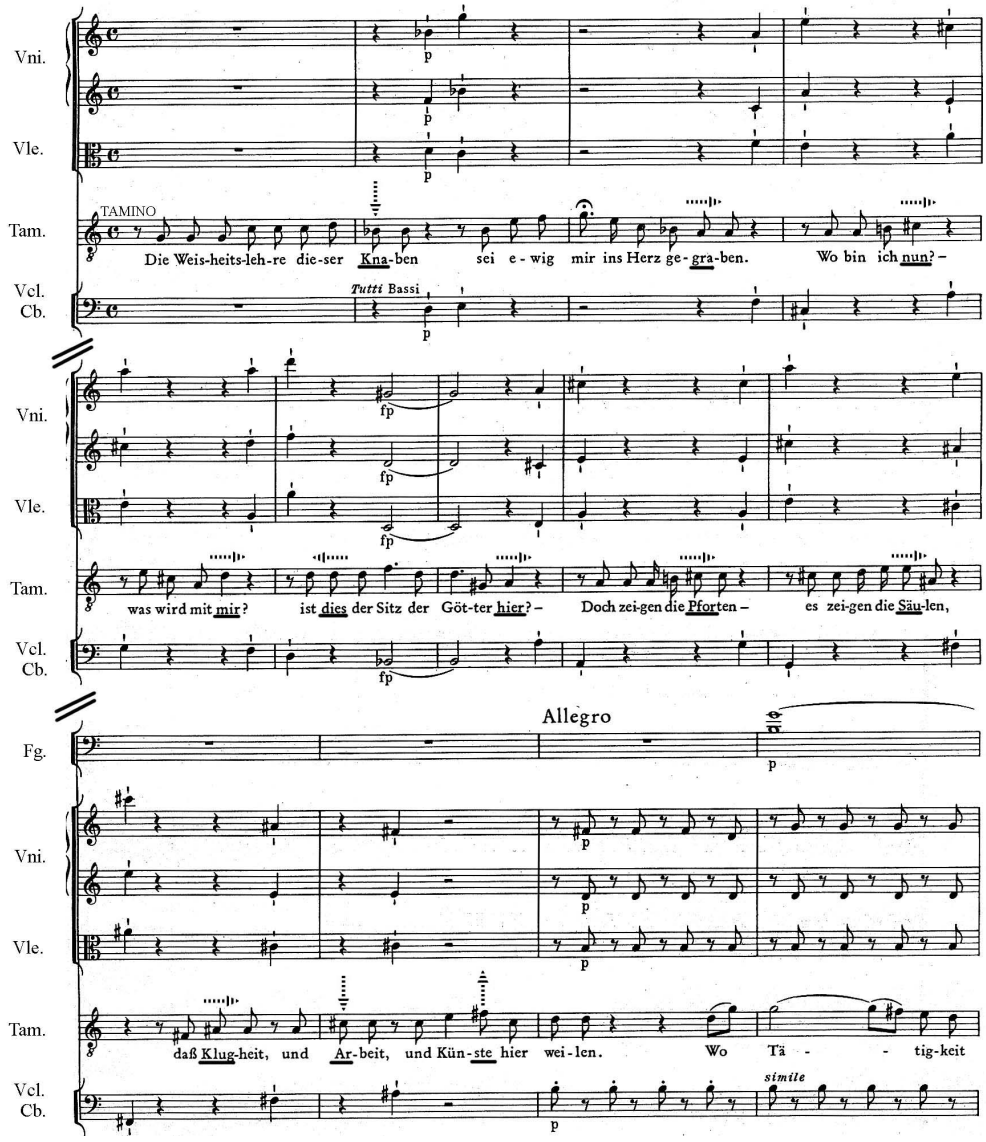
The meter signature is 4/4 and the arrows mean the impulse or energy release corresponding to the start of each of the time lapses or bar *beats*, according to the following scheme:



First beat
Second beat
Third beat
Fourth beat

See in Example 24 the use of the arrow scheme on the corresponding trigger notes-syllables.

Example 24. Mozart, *The Magic Flute*, Act I, Nº 8, cc. 39-51.



The convenience of this analysis and preparation system is effectively proved when, in spite of pauses, interruptions and fluctuations of all types that generally characterize the recitatives, the conductor is able to invariably stand with his baton at the point where the *impulse* of the next orchestral sound will emerge and if possible, *before* the instrumental or vocal soloist reaches that point. The emphasis placed on achieving efficient conducting of a recitative will never be enough: planning the gestural action so as to always be one impulse –one gesture only- away from the next orchestral event.

Cueing: when, how

Cueing is based on the impulse principle. It is a similar process: a certain trajectory of the left hand or the tip of the baton informs those who must join the discourse *how* and *when* to do it. As in everything that makes up the excellence of musical performance, there

is no better guide than the performer's ear, so that a member of the orchestra, while not playing, will visually follow the conductor and aurally follow his colleagues' discourse while counting the bars and will not require, at least in theory, the conductor's entry indication at the time of joining the collective discourse. But, as will be seen, cueing may have consequences that add up a psychological component to the communication relation established between the conductor and performer.

The differences between indicating and not indicating entries and how to indicate them depend on the receiver:

1. a person who plays a solo single line,
2. a group of musicians playing together a set of solo single lines, or
3. a string section.

In general, practical terms, *the convenience of indicating entries (cueing) is directly proportional to the amount of people who should join the collective discourse at any given time.*

Indicating entries involves a considerable psychological component. The permanent contact and communication that must exist between the conductor and the performing group is intensified when he indicates an entry. At that moment, through the entry imparted by the conductor*, that person or those persons who should join the discourse, know that the conductor knows that that person or those persons should play*. This certainty provides confidence, supports the performer's personal initiative and -probably- if the entry is well indicated, and refines the expressive and spiritual harmony between conductor and performer. Above all, remember that the most important components of *indicating an entry* -more than the relevant gestures with the baton or the left hand- are eye contact with the performer and breathing, breathing with him as if he -the conductor- had to perform the piece himself. In the case of a section, eye contact with *the performer* should be understood as eye contact with the last and more distant performers of the section.

Orchestral Conducting students eventually ask when or whom the entries are imparted and, consequently, how to give them. As regards the first question, Elizabeth Green lists 10 situations in which, at her discretion, the indication of entries is required (Green, E., *The Modern Conductor*, 1987, Prentice-Hall, Inc., p. 74):

1. When an instrument or group of instruments enters the music for the first time after the piece has already begun
2. When a single instrument or group of instruments enters after a long rest
3. When an instrument begins an important solo or melodic line
4. When an entire section takes over the main theme
5. When the melodic interest or rhythmic figures (motifs) are tossed from one instrument to another
6. Whenever entrances are tricky or difficult
7. When the conductor wishes to control exactly the moment of the sound
8. When instruments enter on *double forte* attack
9. When there is a cymbal clash or an entrance of the cymbals for a prolonged passage

10. When there are isolated *pizzicati* notes or chords

It is possible to agree without reservation in most of the cases raised in the previous *Decalogue*.

- A first entry or return to the discourse after a long rest may generate some anxiety in the performer, as some uncertainty about the accuracy on the count of empty bars: the conductor's entry indication ratifies or rectifies that number and confers security in the performance.
- Difficult discourse entries -for example those that do not occur in the initial pulse of a beat but in a fraction of it- may become increasingly difficult according to the physical location of the performer and the type of instrument's response: in this sense, some entries of the Trombones and Tubas often cause problems, when both factors occur together: the performers distant, almost outlying location, and the relatively slow response of their instruments. It is then convenient to cue.

- It is obvious that in a stoppage situation of the evolution of the musical discourse –for example after a *fermata*- or in certain aleatoric muisic scores, the conductor not only wants, but *must* control the timing of sound production, by indicating an entry to that who should produce it.
- And the accuracy required for the proper execution of a *pizzicato* can also require a special entry.

In reference to the other points of the Decalogue, it may not be appropriate to generalize, but rather to consider case by case.

- When *a performer* -not a group or a section- begins a solo or a melodic line of importance, minimal eye contact and breathing may suffice because, knowing the importance of his part, the performer will surely pay adequate attention.
- When a group or section that is already playing, takes charge of the main theme, not an entry but another kind of gesture is required to ensure that the passage acquires the necessary relevance. That other kind of gesture can, for example, indicate to the *other performers* that they should decrease the intensity of their sound: thus the prominence is achieved without forcing the sound.
- In a case where the melodic interest or certain rhythmic figures or motifs go from one instrument to another, the conductor should be cautious: the repetition of entries to the *left and right* can become a senseless visual *ping-pong* and even become annoying for the performers themselves.
- And what about the clash of cymbals? The convenience of indicating entries to cymbals arises only from the scope of the first two *commandments* and is not an intrinsic need of the instruments, either cymbals or other percussion instruments.

To round off a general consideration. Young conductors, inexperienced, or those who come from the conducting of amateur choirs tend to assume that the orchestral conductor must indicate many entries. Careful: a member of a professional orchestra is not a musical illiterate. He can read music, listens to the sound around, usually has a lot of experience in chamber music and, in general, knows the usual symphonic repertoire. It is possible that, for him, certain entries are appropriate and even necessary. But repeated and redundant entries may become not only annoying but, even offensive, insulting, as

they can be understood as a mistrust sign of the conductor towards the performer's professional capacity. If I had to sum up a few tips on entry indications, the main would be:

1. In certain contexts, do not indicate entries that can be substituted by eye contact.
2. In other contexts, never forget to indicate entries (for example, to the single, isolated clash of cymbals of the 4th movement of Dvorak's *New World Symphony*, or the first triangle intervention in the *Finale* of Brahms' *Variations* Op 56a, or the first of *cymbales antiques* in Debussy's *Prélude à "L'après-midi d'un faune"*).
3. Not indicating entries can be as bad as excessively indicating them.

The second issue is *how* to indicate entries. Certainly *not* as prescribed by the first advice of Labuta when he advises that in order to execute the basic left hand entry one must point out the performers with the left hand index. The psychology of gesture warns us about how the gestures that involve index finger pointing at the interlocutor are interpreted in everyday conversation. Allan Pease warns that the index pointing towards the interlocutor is a symbolic club with which the speaker figuratively beats his listeners into submission, and that the pointed finger is one of the most irritating gestures that a person can use while speaking.

What is true for daily social relationship is also for the communication between the conductor and his group of collaborators. This does not mean that the conductor can never use the extended index resource to give an entry: occasionally he can. What is not correct is to consider that gesture, certainly negative, as the basic entry given by the left hand. Ronald Laing clearly explains the significance of *giving*, exemplified by the simple act of giving a cup of tea (quoted by Bertherat, T. and C. Bernstein, 1984: *El cuerpo tiene sus razones*, Ed. El Caballito S.R.L., p. 168):

> It is not so easy for one person to give another a cup of tea. If a lady gives me a cup of tea, she might be showing off her teapot or her tea-set; she might be trying to put me in a good mood in order to get something out of me; she might be trying to get me to like her; she may be wishing me as an ally for her own purposes against others. She might pour tea from a teacup into a cup and shove out her hand with cup and saucer in it, whereupon I am expected to grab them within the two seconds before they will become a dead weight. The action could be a mechanical one in which there is no recognition of *me* in it. A cup of tea could be handed to *me without me being given a cup of tea.*

In orchestral conducting, *indicating an entry* does not mean performing a gestural mechanical action that merely informs the other when to join the collective musical performance surrounding him. Whoever receives an entry must perceive it as a personalized invitation to join the collective task, as something that is given to *him* or *her* and not to *someone else* so that, through sound, they can make their personal and non-transferable contribution to the work recreation.

The basic gesture we use to indicate entries must convey this invitation, with the implicit recognition of the *other*, whom the entry is *given*. Therefore it is preferable to use the open, extended, frank, left hand -with caressing fingertips- as basic gesture. Do not

forget that the gesture of displaying the palms has always been associated with truth, honesty, loyalty and deference.

This leads to slightly consider the particular importance that the psychology of gesture has assigned to the significance of the palms, which, according to the use they are given, silently convey a certain authority image. There are two main gestures that deserve special consideration in this context:

1. The open palm up,
2. The open palm down.

The open palm up is a non-threatening gesture, which connotes a certain submission: people towards which is directed do not feel pressured, threatened or subordinate. By contrast, the connotation can be a friendly invitation, as when a gesture made with the open palm up gives someone the prerogative to pass through a door first, or is invited to enter a room, etc. In contrast, the open palm down conveys a sense of authority and people receiving the gestural message may feel a certain antagonism according to the type of relationship that exists with the issuing person. In this sense, the *non plus ultra* of aggressive authoritarianism could be the combination of arm and forearm outstretched with palms down. Simply remember the repertoire of Nazi-fascist salutes....

According to the expressive context, different variants for indicating entries may be adopted: the closed fist, the *O.K.* gesture, the karate chop and even the famous extended index, among others. But the gesture used for indicating entries shall not be unique or stereotyped, used every time and in every context. The good operating gesture is to give an entry with the fingertips and palm open. Other possible gestures may occasionally be applied according to the context.

Intelligibility.

The conductor must be aware at all times that his intentionality does not operate in a rectilinear way. The message is not necessarily interpreted with the same sense that was assigned to it when emitted, but the recipient can infer or reconstruct a meaning that may not coincide with that assigned by the conductor. With this principle in mind, it is understood that the gestural repertoire of a conductor comprises three types of gestures:

1. Of universal meaning
2. Of conventional meaning within the orchestral culture worldwide
3. Personal gestures that require knowledge to be properly decoded

The universal significance gestures abound in everyday life and therefore, are easily incorporated, almost unconsciously, to the conductor's gestural lexicon. They are gestures that consistently appear in cultures with very different characteristics and in various geographical areas. The origin of these gestures, which can be either innate or reflex or acquired, has been researched and discussed. Among them and only to point out some, the following can be mentioned: the smile that may be seen in infants born blind and therefore unable to learn by imitation; some gestures that express strong emotions or

sensations, such as crying and physical pain; frowning, to denote sadness or anger; tilting the head forward to express consent or rotating slightly to both sides to denote negation; lifting or shrugging the shoulders to denote ignorance, lack of understanding or interest; crossing an index in front of the lips for silence (image possibly reproduced in every hospital in the world ...), etc.

Beyond these basic gestures of universal significance, there are other everyday gestures that have a meaning in one culture and may have very different connotations in others. Obviously, an orchestra conductor should be able to *filter* such gestures that in his country's culture have an innocent meaning, but may denote something very different, even obscene or insulting in another culture.

When considering the gestures of conventional meaning restricted to the orchestral culture around the world, one cannot help being amazed by the fact that the transmitted message, through such a small gestural repertoire, in the hands of a good performer and communicator, serving a score full of contents, and decoded and executed by a sufficiently trained human group, could mean *so much* for both communicator and recipients–performers. This is especially noticeable, and quite frequent over the last few decades, in orchestras made up of musicians from many different nationalities and cultures, such as occasional training orchestras sponsored by the European Community or Musical Youth, whose recreations reach poignant expression levels and execution quality, despite the general culture differences and language barriers that can separate the conductor from the performers, the latter from each other and everyone from the listener.

A collection of gestures with conventional meaning within the universal orchestral culture comprises only those gestures for:

1. Communicate the moment of beginning (*attack*) and end (*cutoff*) of units of different morphological hierarchy (of the whole work, of a part or section, of a phrase, etc.) to a variable number of recipients (the entire group of musicians, a part of it, or an isolated soloist).
2. Accompany with the appropriate recurrent spatial trajectories (patterns of *x beats*) the temporal evolution of the musical discourse, not by necessity or to the benefit of those who, simultaneously with the trajectories, are performing their parts by playing their instruments, but to facilitate the musical time monitoring by those who *do not play* and should count the empty bars, to join at the performing group at the right time.
3. Integrate in a gestural manner bar grouping in cases where the utterance of the phrase requires so and to the extent that is required.
4. Communicate the initial *tempo* of the work or each part of it after a disruption, as well as sudden or gradual *tempo* changes, required by discourse evolution, when and to the extent that is required.
5. Communicate the initial dynamics of the work or each part of it after a disruption, as well as sudden or gradual volume variations, required by the discourse evolution, when and to the extent that is required, including the specific predetermined emphasis by the presence of explicit dynamic accents.
6. Communicate the discourse enunciation mode (articulation and phrasing), at every moment of its evolution.

In truth, of all the gestures detailed in the preceding six groups, only those from the first group clarify the unknown at the time of execution. The gestures from the other groups, to a greater or lesser degree, generally act quantifying or qualifying the content of the part that each musician has on his stand, or as an *aide-mémoire* of established conventions and tacit agreements between the conductor and his collaborators during rehearsals.

The study of the score

> *When Fritz Stiedry once conducted* Parsifal *at the Metropolitan Opera, in a production in which I was responsible for the musical preparation, I asked him whether he knew the score from memory (I knew that he always had the book on the stand when he conducted an opera). "I may not know it completely from memory," he said, "but I always know what comes next". [...] Know what comes next: this is basic! Whether the melody in the first oboe is doubled in the second clarinet only or also in the first bassoon is good and certainly important to know, but the absence of such knowledge will not necessarily lead to a catastrophe, nor will it interfere [...] with the formal cohesion of a performance. But knowing whether the 3/8 meter signature begins after nine or ten 4/4 meter signatures of identical rhythmical structure is* conditio sine qua non*, and any attempt to hide this kind of uncertainty pretending it does not exist is going to be immediately acknowledged even by a third class orchestra.*
>
> Peter Paul Fuchs.

To study a score is to incorporate the concept of the work. In the case of the *direct* performers -singers and instrumentalists- the study process may simultaneously involve -and, in fact, it generally does- the gradual execution, that is to say, the stimulation of the affective resonances and the selection, experience and development of the necessary skills in order to produce the desired sound response from the instrument.

In the case of an *indirect* performer, such as the orchestra conductor, who must inspire in others the necessary affective resonances and skills so that they can produce the *desired* sound with their own instruments in order to obtain the concept´s execution, the study process also implies the building of the concept, as regards *how* to communicate it. Besides, it is required to have a minimum strategic prevention plan in order to anticipate potential problems that may occur, instead of being taken by surprise, as well as to know how to deal with them.

Recordings of practically all the orchestral repertoire made by the most diverse performers are a temptation´s source to take the easy way out, a very handy way to avoid the hard initial stages of the text´s inquiry. Should we be restrained from listening other versions, different from our own? The answer is *no*, under certain conditions. The listening of other versions may be useful, only after having consolidated a preliminary personal concept, only after having developed some convictions about the work. This listening may be useful mainly to analyze the divergences with our own concept, trying to understand *the other´s reasons*. The comparison and questions may lead to certain answers that may affirm or question our own convictions, something that is a beneficial exercise, in the intellectual as well as the affective sense. But that exercise will be barely beneficial *before* having developed some personal conclusion, at least a provisional one. If we cannot reach

that conclusion, the unquestioned imitative acquisition of "the other´s" version contributes to weaken the necessary ground that should be built as a solid *personal* interpretative conviction.

The relation between any performer and the score to execute should be totally personal. That is why there are as many ways to approach a score as there are musical performers in the world, as many ways to inquiry its content, to decipher its meaning, to imagine a sound, to build a concept.

A certain way to approach the score, a system of learning and apprehension of its content do not necessarily guarantee the richness of the resulting concept, nor the intensity of its transmission to the ones who should perform it, nor the quality of the product that is being executed.

A photographic memory and a sharpest perfect pitch given as natural gifts are a magnificent ground to support a conducting training. But there are other grounds, other basis for the ones who are not gifted in those aspects. For those, and as a guide for the process involved in the *métier* of becoming an orchestra conductor, a methodological line for approaching the text will be provided here as an example.

Analysis and verbalization

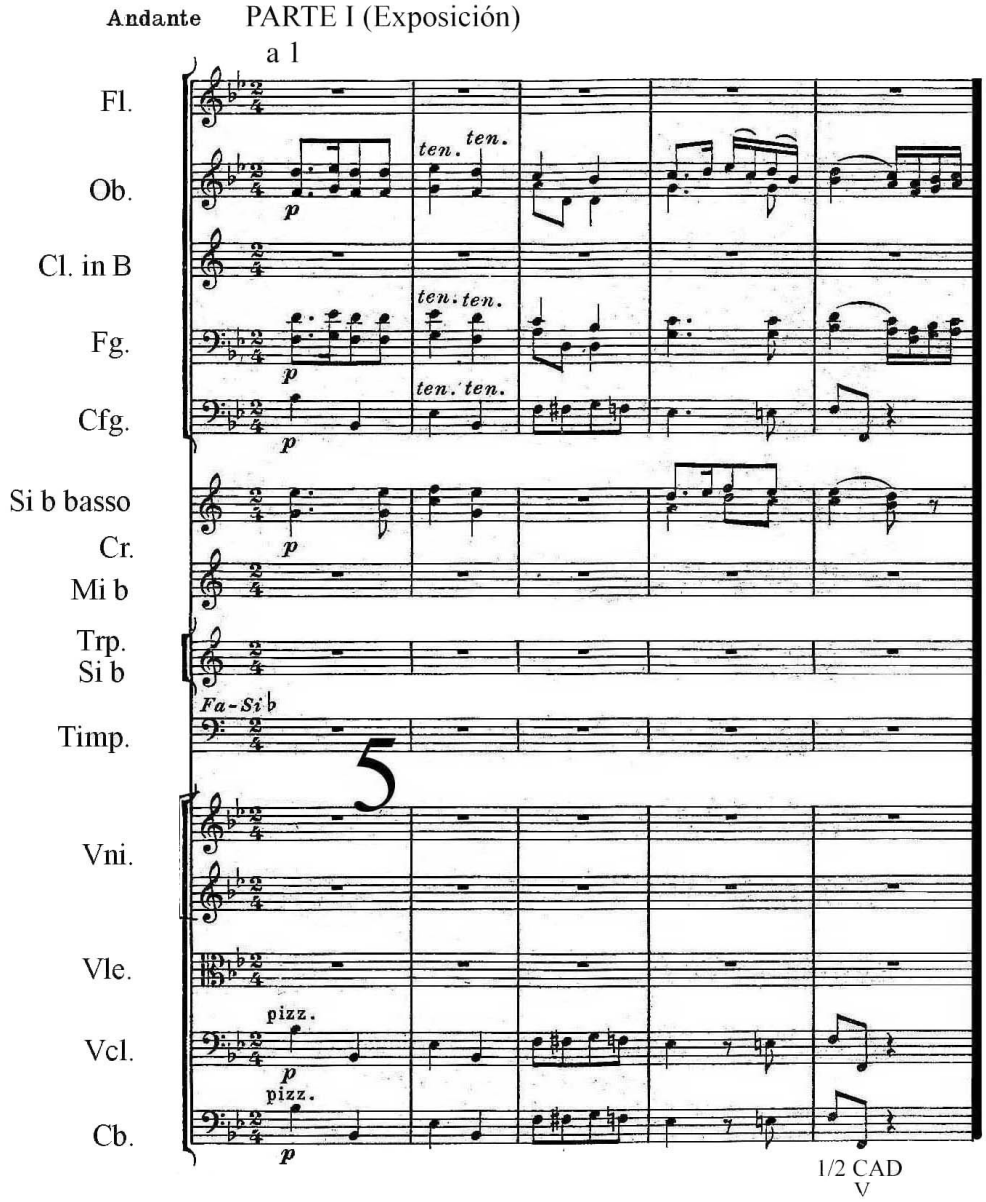
The purely musical analysis of a score actively turns into a performance when the content of the score is executed. It can be stated that any performance reveals a way of analysis, even when the performer has not been deliberately determined to do so. This relation is high lightened by Nicholas Cook when he, on good grounds, points out the correlation between the analysis made by Heinrich Schenker and the interpretation that Wilhelm Furtwängler -renowned Schenkerian- carried out regarding the 1st movement of Beethoven´s *Ninth Symphony* (Cook, N., The conductor and the theorist: Furtwängler, Schenker and the first movement of Beethoven's Ninth Symphony, in Rink., J. (ed.) *The Practice of Performance – Studies in Musical Interpretation*, 1995, Cambridge University Press, pp. 105-135).

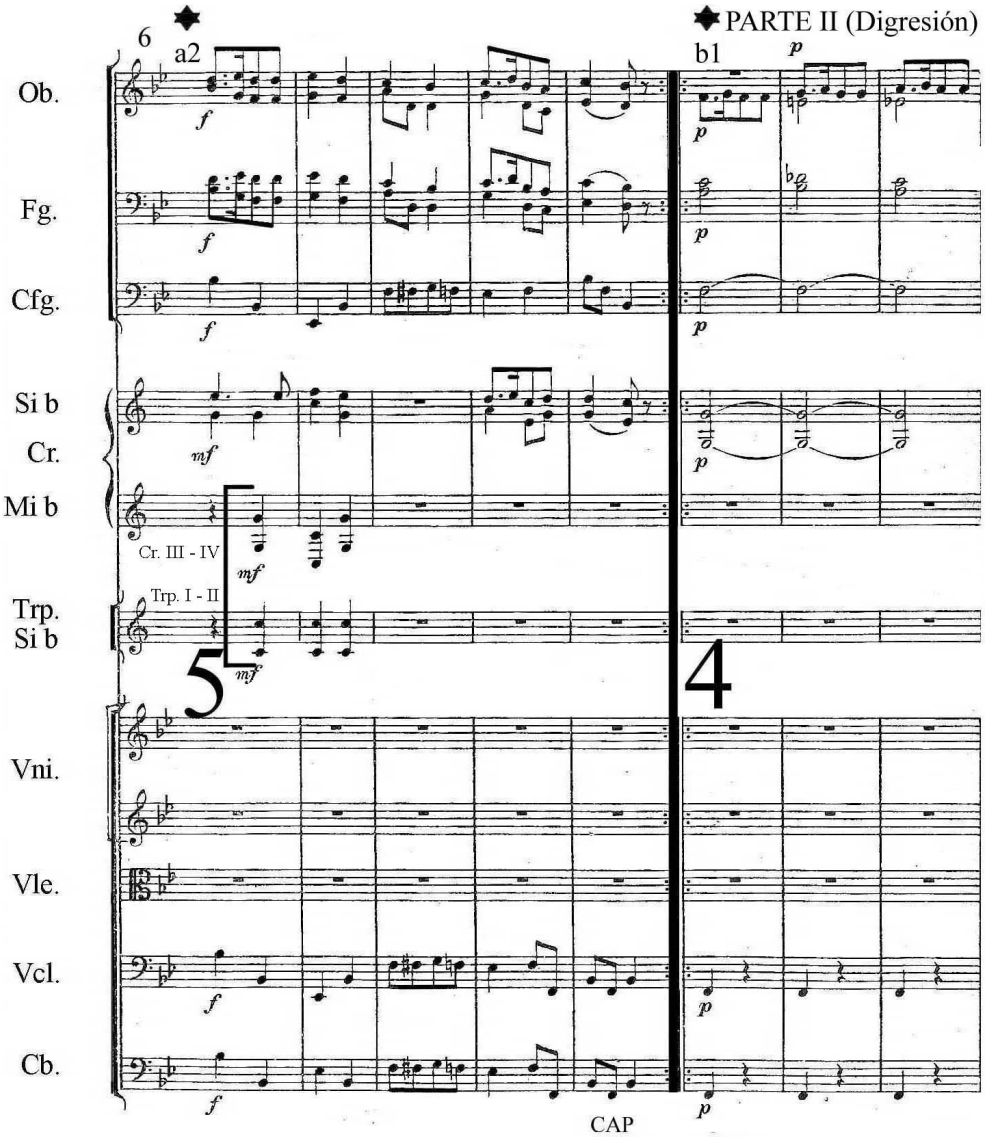
> The use of rallentandos, caesuras and agogic accents to note the structural points is still a commonplace of performance practice, although today's performers avoid the extremes to which Furtwängler and other conductors of the inter-war period routinely went. There is a basic principle underlying this practice, which is that the caesura or rallentando will be longer or shorter according to the importance of the structural division [...]We could express this principle in psychological terms by saying that any given *tempo* creates an expectation of continuity; the caesura or rallentando temporarily contradicts that expectation and in so doing marks this point in the music for consciousness [...] And the greater the contradiction in the expectation, the greater the resulting emphasis.

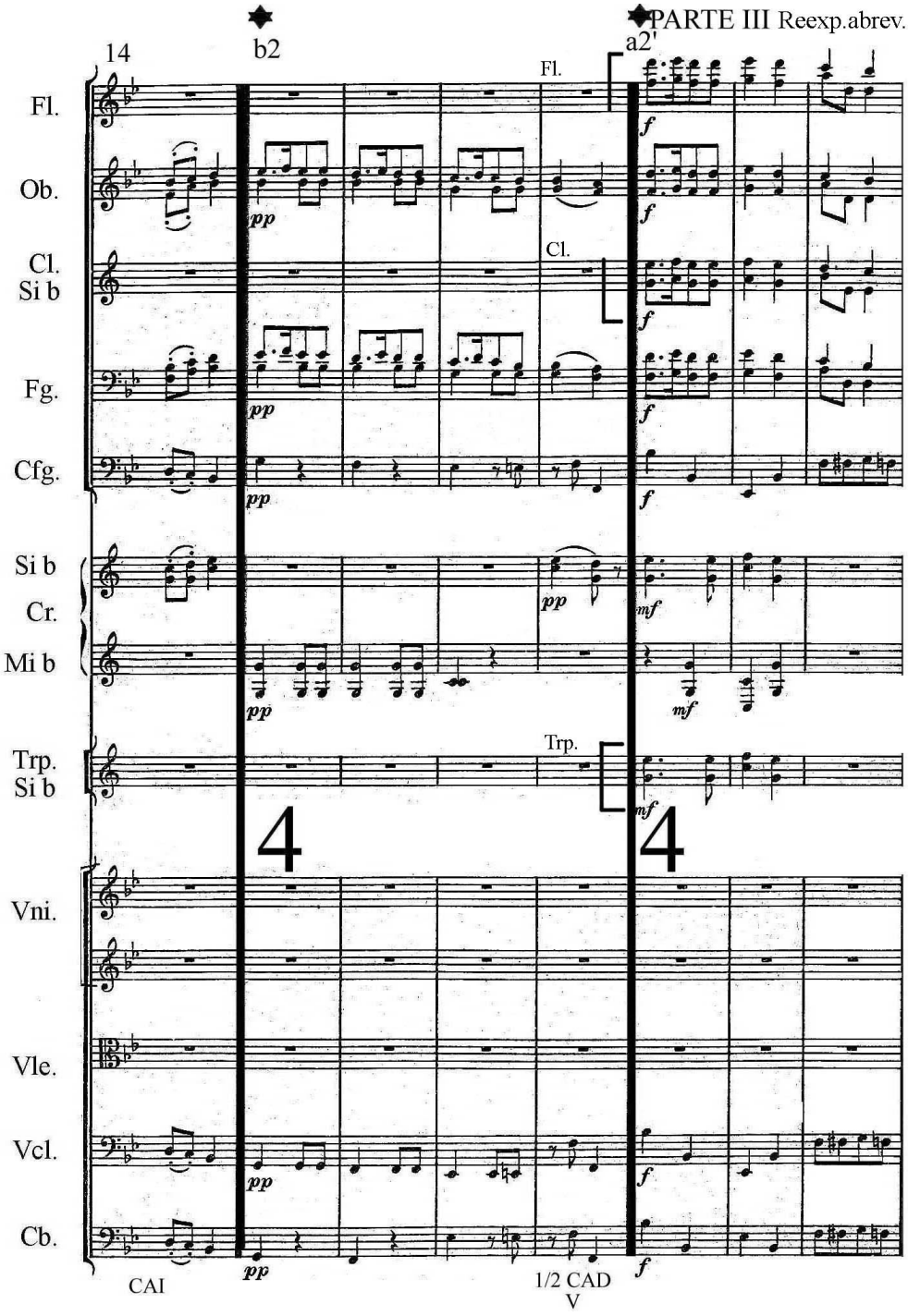
It is also known the unbreakable close link that exists between abstract thought and language: we think in terms of language. This can be usefully applied in the phase of

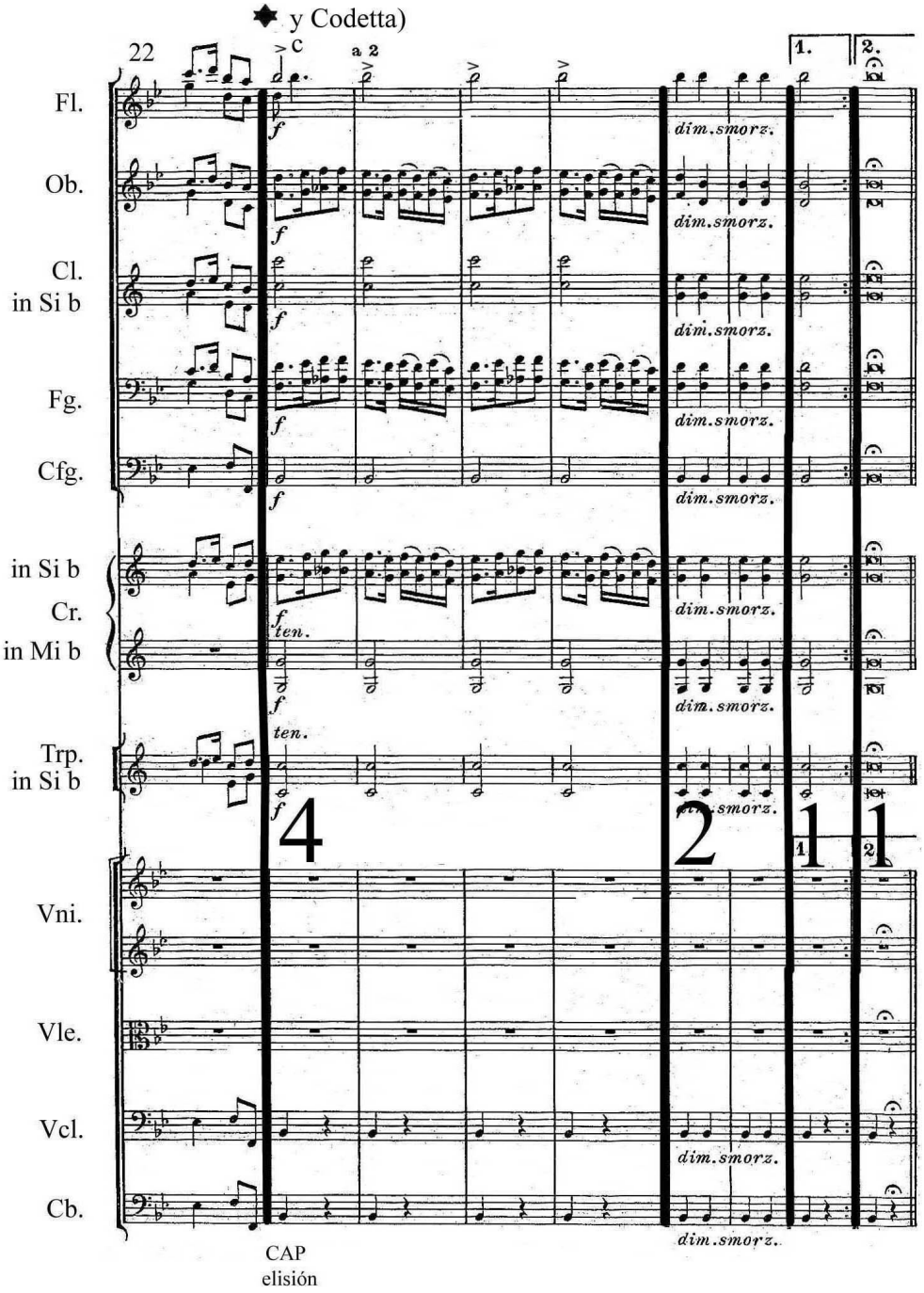
study of the score in its neutral level, simply *narrating* everything that has been revealed from the analysis and reflection, telling us the discoveries and verifications, the comparisons, the abstractions, the symmetries and contrasts, the description of the form, the orchestration, the dynamics, etc. Everything that has been graphically registered in the score and that is considered sensitive to be described in narrative terms. It is a way of setting the details of the text in the memory, and it constitutes the approximate equivalent to studying a literary text aloud.

The fragment that has been chosen as an example is *Variations* on a Theme by Brahms, *Op 56a*, entitled *Chorale St. Antoni,* and the suggested method can be applied, in general terms, to any composition based on tonality (see Example 25. Brahms, *Variations* on a Theme*, Op 56a*).




6
a2
PARTE II (Digresión)
b1
Ob.
Fg.
Cfg.
Si b
Cr.
Mi b
Cr. III - IV
Trp.
Si b
Trp. I - II
5
4
Vni.
Vle.
Vcl.
Cb.
CAP


PARTE III Reexp.abrev.
14
b2
a2'
Fl.
Ob.
Cl.
Si b
Fg.
Cfg.
Si b
Cr.
Mi b
Trp.
Si b
Vni.
Vle.
Vcl.
Cb.
pp
f
mf
4
CAI
1/2 CAD
V



The first steps consider the *horizontal* dimension of the score, that is to say, the temporal events that constitute the formal organization scheme.

1. Pinpoint each phrase and analyze the cadences. During the course of this phase, properly notice the existence of meter signature changes, changes of *tempo* and the existence of *fermate*. Check if there are recurrent phrases. At the same time, divide groups of bars, when their length often -but not necessarily- coincides with the length of the phrases. It is advisable to use some graphic sign to indicate the separations among phrases and bar grouping. In Example 25, a small star has been used to show the beginning of each

phrase, an abbreviated reference for the cadences, a thick line to separate the groups and a large number at the beginning of each group to indicate the number of bars grouped together.

Thus, the existence of 6 phrases is recognized, ending in bars 5, 10, 14, 18, 23 and 29, with the following cadences:

c. 5 – Half cadence in Dominant (V) (5 bars)
c. 10 – Perfect authentic cadence (5 bars)
c. 14 – Weak imperfect authentic cadence (4 bars)
c. 18 - Half cadence in Dominant (4 bars)
c. 23 - Perfect authentic cadence (4 bars and elision)
c. 29 - Contrapuntal cadence in bar 27, plus a prolongation of the final chord (7 bars = [:2:] + [:1:] + 1)

In terms of bar grouping, the result is:

[:5"/5-:] [:4/4"4-7:][22]

2. Observe the elements of design of each phrase, specially the melody, figuring out the presence or absence of textual or varied repetitions, acknowledging the existence of similar and different phrases, and identifying them with some element, for instance, lower case letters.

It can be pointed out that the phrases 1, 2 and 5 have similar designs, and the same happens in the phrases 3 and 4, whereas the phrase 6 does not match the rest. In this case, letter "a" can be applied to denominate the phrases 1, 2 and 5, letter "b" can be used for phrases 3 and 4, and letter "c" for 6.

3. According to what has already been discovered, it is necessary to decide whether the following phrases are grouped, and in that case, to establish the way they do it: if they make up periods, chains or groups, or if they are isolated phrases.

It can be noticed that the phrase *a1* comes to a suspensive half cadence, and the phrase *a2*, even though it starts in the same way, it ends up in a conclusive perfect authentic cadence, therefore building a parallel period. On the other hand, the phrases *b1* and *b2* do not get to a conclusive cadence and, therefore, by using common motivic elements, they form a group of phrases. The subsequent phrase *a2'* is perceived as a restatement of the initial material, that, when it comes to a conclusive cadence in bar 23, it can be seen that it is limited only by the consequent phrase of the period. The phrase *c* prologues to the Tonic on a pedal, with a contrapuntal cadence without harmonic progression.

4. Consider the tonal structure, observing how many harmonic movements exist in the work.

[22] The signs (-) and (") respectively denote *conclusion of a harmonic movement at the main Tonic and interruption*, in the sense the Schenkerian structural analysis assigns to the term.

In the case we are working on, the conclusive cadence of bar 10 divides the work in two harmonic movements. The first harmonic movement -interrupted in bar 5- is performed by the initial period *a1"a2-*. The second harmonic movement starts in bar 11 with the group *b1 b2"*, which prologues the Dominant, with an interruption in bar 18 and the conclusive phrase *a2'-*.

5. Consider the design from the motivic and melodic points of view, observing the contrasts, recapitulations, etc., with the aim of going ahead in the determination of the form, recognizing their functions.

In the light of what is already known, it can be stated that:

- the initial period (cc. 1-10) performs an expository function,
- the central group of phrases (cc. 11-18) constitutes a digression, considering that the phrase *a2'* functions as an abbreviated recapitulation of the initial material,
- the final phrase *c* is a prolongation of the final Tonic, functioning as a *codetta*.

6. Once everything is considered, we determine the form of the work.

It consists of a simple sectional ternary form, with abbreviated recapitulation and *codetta*, symbolized in the following figure:

<table>
<tr><th colspan="6">Brahms, Variations Op 56a, Theme</th></tr>
<tr><th>Bars</th><th>Phrase</th><th>Design and harmony</th><th>Cadence</th><th>Function and form</th><th>Formal division</th></tr>
<tr><td>01-05</td><td>1</td><td>a 1 I → V</td><td>Half cadence on V</td><td rowspan="2">Exposition
Parallel period</td><td rowspan="2">Part 1
A1-</td></tr>
<tr><td>06-10</td><td>2</td><td>a 2 I → V - I</td><td>Perfect authentic cadence</td></tr>
<tr><td>11-14</td><td>3</td><td>b 1 V → I</td><td>Weak imperfect authentic cadence</td><td rowspan="2">Digression
Group of 2 phrases</td><td rowspan="2">Part 2
B"</td></tr>
<tr><td>15-18</td><td>4</td><td>b 2 IV → V</td><td>Half cadence on V</td></tr>
<tr><td>19-23</td><td>5</td><td>a 2' I → V - I</td><td>Perfect authentic cadence</td><td>Abbreviated restatement (Consequent phrase of the initial period)</td><td rowspan="2">Part 3

A2-</td></tr>
<tr><td>23-29</td><td>6</td><td>c I</td><td>Prolongation of I</td><td>Codetta</td></tr>
</table>

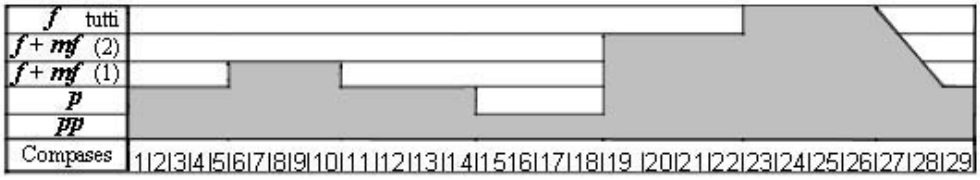
The second study phase implies to get into the text's vertical characteristics, in which diverse factors coexist, such as the dynamic ones, pitch, register, etc.

We can start researching the dynamic levels proposed by the composer, with the aim of finding his intention as regards how and where to set and build the *climax* and *anticlimax*. We have found the following:

- cc. 01 - 05: *piano*
- cc. 06 - 10: *forte* in woods and strings, *mezzoforte* in brass
- cc. 11 - 14: *piano*
- cc. 15 - 18: *pianissimo*
- cc. 19 - 22: *forte* in woods and strings, *mezzoforte* in brass
- cc. 23 - 26: *forte*
- cc. 27 - 28: *diminuendo smorzando* without specification of the final level
- c. 29 : without specification (a return to the initial *piano* level can be assumed, where the first Variation also starts)

This information reveals that the lowest intensity point is found in the phrase that is located between bars 15-18, and the one of highest intensity is set in the beginning of the *codetta* (bars 23-26), where we find a generalized *forte* for all instruments. Having this data, a dynamics diagram can be drawn:

Figure 16.



(1) ***f*** for woods and strings, ***mf*** for brass.
(2) *Idem* the previous one, but the difference is that the entrance of the coupled Flutes and the Clarinets doubling the Oboes produce higher intensity.

When examining the orchestration, it should be taken into account the instruments that are actually playing in the fragment that is being studied. In the case of Brahms' *Theme*, if we consider the instruments that are listed at the beginning of the score, there are neither Timpani nor higher strings (Violins and Violas) playing. There are not Piccolo and Triangle playing, either, which would complete the orchestral scoring of the complete variations.

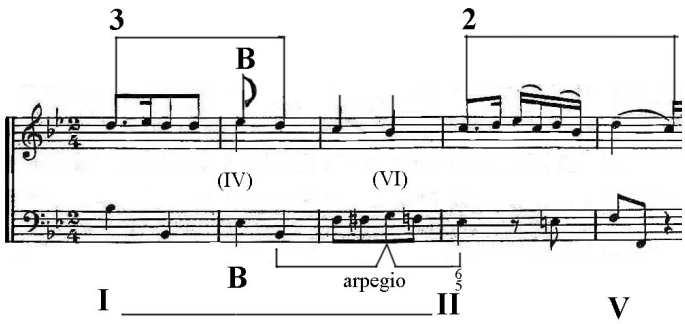
Afterwards, the part of each instrument or section should be read, trying to imagine the sound result and with the double aim of:

To check when they play for the first time, or when they are reincorporated after a long rest,
To pick up the passages that are hard to read or execute.

The moments when the instrument or section play for the first time, and the moment when another one is incorporated to the discourse after a long rest, can be indicated in the score and they need special attention from the conductor to give a cue and/or an eye contact. As regards the passages that are hard to read, for instance, those cases when the conductor stumbles during the first sight-reading, they require specific attention to be correctly consolidated in the mind. And in the case of the passages that are hard to execute, it may be convenient to think about other musical or merely technical options that make these cases easier. Definitely, the fragment we are talking about does not include those kinds of passages.

The following step is to finally assimilate those details of the musical content in the memory. A melody and a bass note like the ones from the *Theme* are easy to memorize. Some analytical sketches can make the task easier. Example 26 shows a possible draft for the initial phrase:

Example 26. *Ibid.*, cc. 1-5.



Having this kind of sample as a model, we can already get into the field of the composition and orchestration details, starting with duplications and couplings. It can be easily incorporated in the memory that:

1. The section of the bass note is assigned to the Contrabassoon, Violoncellos and Contrabass playing *pizzicato*.
2. The melody is assigned to the Oboe 1, coupled by the Bassoon 1 at the lower octave, and in the last case, with an heterophonic and incomplete duplication of the Horn 1 (notes should be taken on the divergences of the heterophony, such as the elimination of the sixteenth neighboring tone in the first beat of the 1st. bar, and consequently, the different duration of the note D*3*, the rest bar, the melodic simplification of the second beat of bar 4).
3. The parallelisms: the lower 6ths of Oboe 2 and Bassoon 2 in the bars 1-2; the divergence of Horn 2 in relation to those; the differences in bar 3; the parallels 3rds. of horns 1 and 2 in bar 4; the parallel 3rds of the Oboes, Bassoons and Horns in bar 5, etc.

Having already assimilated all this knowledge, it is time to imagine the sound of the text, trying to mentally hear –with its pitches and dynamic levels- all the voices of the texture, pairing the instruments that are duplicated and coupled, imagining the harmonies, the textures, etc. A musical instrument can be used for this task, but it is advisable to do it just to check the tonal stability, to corroborate or correct the digressions, but not to substitute what should actually be a mental task.

As regards the instrumental help or support, it is important to warn about the risks of using the piano, the most amazing, magnificent, wonderful *percussion* instrument that exists. Effectively, due to its nature, the sound of the piano has a tapping attack and a decadence of intensity that go against the imagination of the true *legato* and the *sostenuto*, that actually can -and should, in the required contexts- produce the strings and winds of the orchestra. Those who get used to imagining the orchestral music with the sound characteristics of the piano take the risk of not detecting –in order to correct them- the undesired accents that are caused by the careless execution of the orchestral instruments. Therefore, the *piano-dependence* may limit the possibilities of improving the execution of the orchestra.

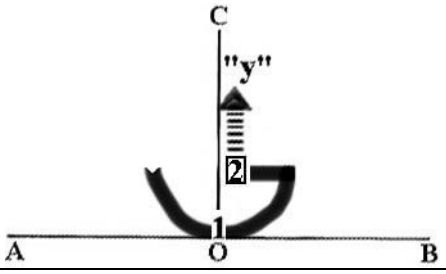
The last stage corresponds to the elaboration of the *gestural score*. In fact, the concept the conductor has conceived of the work is the one that directly determines the repertoire of gestures that will be used to be communicated to those who are going to execute that concept. It is supposed that the mechanical gestures that are normally used for the most elemental gestural functions -for instance, unanimity in attacks and cuts- are already incorporated as habits, do not require any warning. However, they are taken into account here, because this work has been mainly conceived for students of Orchestral Conducting. At the same time, it should be clearly stated that:

1. The baton actively participates by propelling only some effects at certain points of the musical discourse.
2. When it does not propel actively, the baton accompanies synchronically and passively the metrical underpinning of the execution of the orchestra, without interfering with the ones that are playing but contributing instead to facilitate the counting of bars of the rest.
3. The left hand actively participates by prompting only some effects at certain points of the musical discourse.
4. The rest of the time, it remains calmly still –with the forearm bent, not extended- ready to enter meaningfully on stage, causing the least visual noise with its entrance.

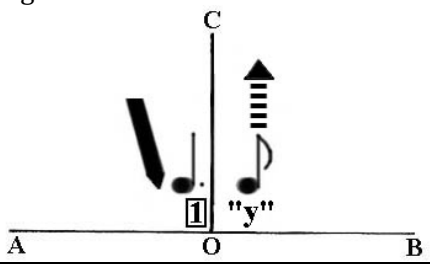
Finally, in the following figure, it is considered that the number of bars corresponds to the *effect* and that the *gestural cause* that is proposed for the performance of that effect should be carried out with the proper anticipation.

Considerations to build a gestural score		
cc.	**Baton**	**Left hand**
1	Impulse by reaction to guarantee the strings´ *pizzicato* adjustment with the winds´ attack. Inhales with the winds.[23]	Prevents the dynamics ***p***
2		Suggests the winds *tenuto*.

[23] It is always convenient to inhale with the winds performers when impulsing an attack: it remarkably guarantees the ensemble.

5	The phrase is intended to be completed and to impulse the *forte* of m. 6 without inducing a *cresc.* of Oboes and Bassoons. The baton indicates the end of the phrase in **2**, remaining still and propelling by reaction the continuity at the offbeat. Figure 17.[24]  	
6		Cues horns 3 and 4 and the Trumpets.
10	Idem m. 5, without the problem of prompting the *cresc.* Use of the Figure 17 diagram, both to repeat and to continue.	Anticipates the ***p*** when repeating or following.
11 12 13	Impulses the *pizzicato* of the Violoncellos and Double basses.	
14	Idem m. 10. Use of Figure 17.	Anticipates the ***pp***.
18	Discrepancy between the graphics of Oboes and Bassoons, on one side, and horns 1.2. on the other. The principle of maximum quantity of information is applied, adopting the phrasing of the horns. Use of Figure 17.	Warns the next entrance of Flutes and Clarinets (extended index, vertical)
23 to 26	Wide *tenuto*.	Prompts the indicated *tenuto* for horns 3.4. and Trumpets, extensive to Clarinets and Contrabassoon. It is not necessary to worry about the accent of Flutes.
27 & 28	It reduces the width according to the *dim. smorz.* The 2nd time, the *smorzando* is performed as *rallentando*.	It helps in the implicit *decrescendo*.

[24] The solid line denotes de usual baton trajectory whereas the dashed line with the arrowhead and "y" ("and" in Spanish) means the impulse by reaction.

29	1st. box. It remains still during 3 eighth notes. At the 4th. eighth note, it propels the repetition, in synchrony with the cut of the left hand. Figure 18.  	At the 3rd eighth note, it starts the cutting trajectory that is completed at the 4th. eighth note, in synchrony with the baton´s impulse.

The Rehearsal

> *There's only one way to rehearse an orchestral piece, which is what I do[…] I play the whole thing from beginning to end without a stop. The whole blessed thing. The orchestra makes a few mistakes, naturally. I play it through a second time. The orchestra makes no mistakes. I then just take a few little difficult parts. I pinpoint them, I emphasize them, I repeat those three or four times[…] What does the young conductor do, who will never profit by anybody else's experience, thanks to his unconquerable egotism and innate stupidity? He will take a first class orchestra, and after playing twenty bars he will stop, and begins educating them. They already know the damn piece ten times better than he does. He moves forward another twenty bars and stops: he starts educating them, teaching them. That's why they demand six rehearsals, and that's why I can do with two.* Sir Thomas Beecham.

It has already been mentioned some of the typical features and roles of the rehearsal that should be taken into account before considering the topic extensively.

1. During the first rehearsal, where the conductor and the orchestra meet, the abstract relationship conductor-orchestra becomes real, it is personalized and faces, names and histories come to the foreground. A process of interpersonal communication starts growing between them, which will end with the last musical note of the last work of the last performance they carry out together during this working period.

2. It is also during the first rehearsal, when the *presumption of excellence* from one part to the other starts to be critically appraised.

3. Regarding the previous item and as its result, both parts start to go through a path, which takes them from doubt or ignorance to certainty about the other.

4. As rehearsal goes by, the transformation of the ideal image or the work concept into the sonorous real image takes place: a potential content starts turning into a perceptible reality.

Thus far, a summary of the most important features in relation to the rehearsal has been presented. Now we must deepen into due to their relevance. As usual in this profession, the approach can considerably differ from one conductor to the other, but there are several basic principles, widely recognized and accepted, which are going to be dealt with in this section.

The orchestra features will define most of the way in which the task has to be considered: it is not the same with a fully top-level professional orchestra than a lower level professional one, or an adults´ *amateur* or a youth one. All of them intent to increase their efficiency during rehearsals, not only from the point of view of improving their performance, the quality and affective intensity of their sound, but also to fulfill the interpretative suggestions of the conductor on duty, even in the minor details. A different approach will be required for each of them. The lower the level of professionalism of the orchestra, the higher the attention and time that will be required to create the technical and material preconditions: a proper reading of the notes, a proper intonation, a proper *solfege*, etc,

As a consequence of everything already mentioned, if it were possible to quantitatively measure the concurrent factors in a performance in terms of 1) exclusive contributions from the orchestra due to its musicianship and experience, 2) spontaneous and immediate orchestra adjustments in return to the information given by the conductor's gestural communication and/or by the verbal instructions that he imparts *while* the orchestra is performing and 3) results of the rehearsal work, problems' isolation, interruptions and work on detailed and partial excerpts, it would be discovered that the influence moves from 1) to 3) as the level of the group professionalism decreases.

The rehearsal development can oscillate between two equally inconvenient extremes. At one extreme, the continuous repetition without interruptions; at the other, the extensive and exhausting explanations and repetitions, the continuity of short excerpts that have been laboriously rehearsed. In the first case, each tree cannot be seen individually in the wood; in the other, the wood cannot be seen because of each tree. There is no orchestra, which can resist only one way or the other. In general, they first need to know where they move to, but after going for a while, they need to stop to recognize the details of every step of the path they are along.

It is a must to know how to differentiate between what exclusively belongs to the rehearsal field and what has to do with the live concert. At this point, it is advisable to be aware on the inconvenience of the two extremes: rehearse in order no to get unexpected events during the execution, or leave the problems´ clearance and solution, typical of the rehearsal, to the execution. From the performer´s point of view, there are some features which have to be assimilated during the rehearsal, such as becoming familiar with the own text as well as other performers' one ("I should know what part I play, who plays some parts with me or during my rests"), the solution of technical issues of my own part (breath, fingering, bow stroke, etc.), style experience, dynamic levels, output sound quality, a *tempi* approximation, the meaning of basic and substantial symbols of the conductor´s gestural code, as a precondition or frame of reference. During the execution, *tempi*, *rubato* details, accompaniment dynamic levels, the intensity and expressive impact, may be definitely adjusted. Swarowsky used to say that during the rehearsal, the conductor has the opportunity to deal with every little detail: phrasing, dynamic, agogic, etc. and organize them, while during the execution, he has to take into account the *manner*; that is to say taking "the whole" to its temporal development within the right frame: he has to behave towards getting the work the real character the author intended for it.

The difference between the rehearsal and the performance may acquire huge importance when the orchestra rehearses in a different place from its public performances. Generally, it does not happen in big orchestras but unfortunately it is an issue of difficult solution that most orchestras suffer. It is obvious that if they are not able to rehearse in the same venue where they are going to perform, the rehearsal room should have similar acoustics to that of the real venue, allowing the musicians to be in the same disposition. If this is impossible and assuming there is only one rehearsal in the performance venue, every aspect of the program that requires an adjustment regarding the new layout and acoustic conditions should be focused.

Similar to a pianist or an organist, who has to execute the work concept, dealing with an instrument not usually his own, the conductor has to shape his own concept every

time, taking into account the special features of the specific orchestra which has been entrusted to him. In this respect, a positive and stimulating attitude from the conductor to the orchestra members is not contemptible, even to those who have a lower professional level. Christopher Adey an authority in the subject remarks that *confidence* is more important than almost all the other aspects of a conductor´s features.

A good rehearsing methodology has to take into account the musical and technical issues to solve, without leaving aside the context of the psychological mechanisms that appear in the relationship between conductor and performers. Despite being talented, it is difficult for a young inexperienced conductor, to have an *innate* good rehearsal methodology. That is something to be learnt, through trial and error, through critical reflection and moreover, watching the results of very experienced conductors while rehearsing.

Rehearsal time management

The rehearsal planning

When rehearsing, time management is vital. A rehearsal is often divided in two fractions, with a break.[25] We may find 4 fractions or zones for the joint task: 1) the rehearsal beginning; 2) The period prior to the break; 3) the period after the break, 4) the period leading up to the rehearsal ending.

1. The rehearsal beginning is subject to the transition between everyday experience and the spiritual environment necessary to fully integrate the esthetic experience of *playing music together*. Everyday experience can include an amount of negative social and personal elements that should be sorted out before making any progress in terms of music. It is easy to infer that family, political, economic, labor issues, etc. can negatively affect the performers´ mood and efficiency if they are not offset in time. It must be done at the rehearsal´s beginning to achieve a positive result.
2. The period prior to the break entails having reached an ideal state, bringing together a desirable spiritual environment, warming up the instrument, lips and fingers and to be in the best position to solve complex issues. At certain time, the next break expectation is a factor worth of consideration.
3. This situation might be extended to the rehearsal restarting, after the break. In contrast to what happens before and after the rehearsal, instants in which they come from and go to daily topics; the break is generally a moment to share with the group members, even though there is an inevitable influence of everyday issues, such as talks and debates about politics, economy, sports, health, etc, there exists the subtle difference that all of this occurs within a musical experience which has began and will continue in some minutes.

[25] There are certain scenarios –as for instance some U.S. orchestras-, where two breaks are required during rehearsals, as there are some union regulations, which state that out of 60 minutes of work, 10 must be assigned for break. In such a way, a rehearsal which lasts 2 hours and a half has to be divided in three parts: 50 minutes for the rehearsal, 10 minutes for a break, 50 minutes for the rehearsal, 10 minutes for a second break and finally 25 rehearsal minutes. Needless to say, in such places the time regulation is firmly strict.

4. From a certain moment, the ending expectation begins to affect the rehearsal progress. If the rehearsal is the last task of the day, countdown to go home may already be in mind. If it is not, one might start digressing about post-rehearsal activities: pay a bill, carry out formalities, teach, go to another rehearsal, etc. All these may lead to be *mentally off topic*, which certainly restricts the efficiency of the task.

The above-mentioned features act regardless of the program structure because they are based on performers' psychological and emotional aspects. However, if the conductor is acquainted with these features, he can determine what and how to rehearse in each mentioned period.

Ideally, the rehearsal should start with the orchestra playing for some minutes without interruptions. This can be easily done if there is a repertoire work included in the program. And therefore, drifting away from the everyday reality and lose oneself into the microclimate of the experience of playing music together. At the same time, this enables the orchestra members feel more comfortable as they are in a well-known field and allows the conductor to assess the orchestra level, its efficiency and how it reacts to his gesture messages.

The very last moment of the first period, may be the whole second period, can be dedicated to that work of the program for which a better reading and more concentration is needed. For example, it is the time to deal with the rehearsal of the contemporary work, which uses non-traditional graphical symbols that require explanations. It is also the ideal moment to rehearse the slowest movement, which requires the greatest concentration and tension in the execution. Due to the interruptions that arouse and the physical, mental and emotional requirements, this type of works or fragments make the performers feel tired and look forward to the following break to recover. If there are several rehearsals scheduled, it is advisable to divide these types of works or movement preparation in two or three sessions in successive rehearsals.

The third period is perhaps the least complicated. On one hand, it is ideal to start with something new, but on the other hand, and if necessary, you can continue with what you were doing before the break. The fourth period should be for pieces or movements, which do not require difficult reading or execution, the orchestra, can perform for longer periods without interruptions. If the interruptions cannot be avoided, they should be less, shorter and more accurate than the interruptions in second and third periods.

It is convenient that the rehearsal´s last minutes, as well as the first ones, be devoted to play a longer music part without interruptions. In all the cases, after having closely revised a piece, having separated and divided the work sorted out issues and finding solutions, it is necessary to play through what you have been working without interruptions before going on with the following work or piece. It is good to rejoin all the separated pieces into one and it can be compared with the *step backward* that an artist, like a sculptor and a painter, makes to contemplate his work as a whole.

The rehearsal planning has to take into account the required orchestral scoring for each work. It is very exhausting for a performer to come into the rehearsal room, sit at his stand, tune his instrument and then have to wait for several minutes, even one or two

hours, to play his part. The conductor should know exactly how each work orchestration of his program is composed and plan the rehearsal in a way that there are no performers sitting in front of their stand having nothing to do. We can achieve it through different paths, depending on the program features. The works which require the biggest amount of performers may be scheduled first and then, if they do not participate any more in the program, let them go. Or, the other way around, begin with reduced orchestral scoring works and arrange with the other performers to arrive later at a certain time. As a general rule, it is very convenient to communicate everything in writing, being very accurate on the orchestra notice board, the first two rehearsals plan, leaving the following in suspense until the program preparation real needs are reckoned.

Musical scores and parts

In connection with the rehearsal time management, it is important to avoid wasting time on formal and material issues, such as not sharing with the orchestra the right references to find the passage or passages to which the conductor wants to refer during the session. All the musical scores and orchestral materials use at least one of three possible systems: the bar numbering, and/or the writing down of reference letters and figures every such bars. The chosen method varies from one composer to another, or from one publisher to another. In order to avoid wasting time, there is no situation that can be compared with that in which the conductor has his own complete material to be used by the orchestra, including bowing and established fingerings. However, that is an unusual scenario. Therefore, the first conductor´s task in this regard, is to make sure that the score he reads in the rehearsals has the same references than that read by the orchestra. If it is not the case, he has to commit time writing in his score the system, which has been adopted by the orchestral material before the beginning of the first rehearsal.

In this order of events, there can appear awkward hypothetical situations, for example: if the orchestra has the bar numbering and the conductor does not have them in his score, where figures or notations of reference appear. If the orchestra library has a score, which corresponds with the material the orchestra is using, it would be convenient that the conductor uses this one- at least for the first rehearsal- instead of using his. Other possible solutions will take time: to write the references of the material in use in the conductor´s score or, even more time consuming, to mark in each of the parts the figures or notations of the conductor´s score, paying special attention to set them in the proper position if they take place in middle of any instrument´s succession of empty measures.

An ideal distribution of the reference figures or notations has to allow them to be set in a way that no more than 10 or 15 bars have to be counted in one direction or another. This does not always occur and there are a lot of works whose references are 50, 60 or more bars apart. In that case, it is advisable to add additional references, using the opposite system to the printed one: for example, if the parts have figures, add letters, and vice versa. The *tutti* are the proper moments to add them, as *all* the instruments are engaged. If it is a partial *tutti*, the addition will have to be done paying special attention to those performers who do not participate in it, properly including the additional reference in the middle of the empty bars of their parts.

Another time-consuming action is the turning of pages by the conductor, looking for the nearest reference to guide the orchestra. It is ideal to have a reference in each page

of the general score, so no turning over is necessary to find it. If it is not the case, one solution could be that the conductor takes some time to include the correspondent referential situation in each page of his score. In order to do so, he has to write above the first bar of each page or above each system in the page, the position of that bar in relation with the nearest reference. Let us suppose the conductor is reading pages 10 and 11 of his score, where there are no reference notations. Bar 1 of page 10 is the 12th bar after letter C (on page 8), and bar 1 of page 11 is the 24th bar before letter D (on page 15). The conductor writes above the first bar of page 10 "C 12" that is "the twelfth bar after C". Similar to this, he writes above the first bar of page 11 "24 C", that is "24 bars before C". In this way, he will have in every score page a referential situation to communicate to the orchestra with no time wasting.

The manner, in which the conductor communicates to the orchestra the bar he wants to point out or from which he wants to begin the execution again after an interruption, may also demand time. If it is the exact bar, information will be straight, without obstacles: "letter (or figure) X". If it is not, the information has to be provided in the sequence in which the performer will look for it. The performer has to look for the letter or figure first, and then, he has to count backwards or forwards the corresponding number of bars. It is convenient to express it like this: "Before (or after) X, so many bars". And one more nuance. When you count backwards, it is better to use cardinal numbers: "before X, 8 bars", when you count forwards, use ordinal numbers: "after X, the fifth bar".

Works including soloists

An inappropriate accompaniment rehearsal of works that include instrumental or vocal soloists may also waste time. In first place, it is very useful that the conductor knows beforehand the soloist interpretative distinctive features before their first rehearsal. It may demand just a brief previous meeting. The orchestra practice before the first rehearsal with the soloist compels to work the *tutti* engaging only the orchestra. There are long sections of simple accompaniment in the great classical-romantic repertoire, which can be easily read at first sight. If you are not working with an inexperienced or a very low-level orchestra, you do not have to spend time rehearsing these passages with the orchestra alone. It will be more useful to do it while the soloist is playing or singing his part. And if there is any mistake or slip during the reading, it can be easily and quickly solved, and the soloist presence will add a plus to the joint work.

Useful advises for rehearsing

- During the first minutes of every rehearsal let the orchestra play freely, without interrupting it. It will contribute the performers to *cleanse* their daily life troubles and get into the most suitable spiritual climate to play music.

- Use an alternation scheme between the general and the particular in the preparation work, but always ending in the general (**|:** general - particular **:|** general).

- Before the breaks or at the rehearsal end, let the orchestra play freely the piece on which they have been working without interrupting them. It will be useful to

summarize the work as well as at the rehearsal end preventing the orchestra from suffering the *last minutes syndrome*, where performers´ subconscious, as we already mentioned, fights to go *mentally off topic*. The interruptions and repetitions, in these last minutes, tend to produce irritation, without having any artistic benefit.

- The less you speak, the better. In general, try to give indications *while* the orchestra is playing, if possible, anticipating your demands.

- Avoid speaking if you have adopted the preparatory attitude previous to the impulse to start the execution. Once the performers are mentally and physically prepared to start the execution, it is really irritating and counterproductive that the conductor speaks instead of conducting. If you remember something relevant to express at that moment, it would be better to mention it in the next pause.

- Never stop the playing without knowing why and what for.

- If you have to speak, be very sparing and try to accurately express your desires. Adopt the most technical and accurate terms to speak about the tuning, dynamics, bow strokes, articulations, planes, phrasing, *tempo*, adjustment and any other features. Do not lecture. The performers are not interested in what you know about the work, they are there just to *carry out* the work concept, which is a very different thing.

- If you impart a technical direction, be sure it is possible to be fulfilled and that it will effectively help to get the result you expect. Remember that any orchestra member probably plays his instrument better than you, unless you are an accomplished performer.

- If you are in charge of a professional orchestra, as resident or as guest conductor, try to keep a polite and respectful distance with the musicians, even though they may be your relatives or close friends. Do not address them in informal terms: You have to be the *Maestro* for them, and they are always *maestros*, *professors* or *friends* for you.

- If there is no order or silence in the rehearsal, do not try to shout above the disturbance: many people tuning up or talking are unbeatable for any human larynx. Adopt a motionless attitude, be patient and wait: when there is silence, you will be able to express yourself.

- Always address the last performer of the section and speak in a clear way. When addressing the complete orchestra, speak to those furthest away.

- A bit of humor is welcome by any orchestra. If you make a joke or tell an anecdote, be sure it will not be misunderstood and turn into a nuisance against you, as a *boomerang*.

- If you use your own score, be sure the notations or figures references of the rehearsal in your score matches the orchestral material.

- As long as possible, try to rehearse and repeat using morphological units (a phrase, a period, etc).

- When restarting a passage after an interruption, do it from a reference notation or figure, or the nearest possible. You will avoid wasting time on counting the bars.

- After informing the reference from where the execution will be resumed, be sure all the performers have certain time to find it. If you do not give the performers enough time to find the reference where they have to start playing, there will be discomfort and uneasiness among them. Frustration encases those, which could not find the reference, and also those who found it, already started to play but have to stop shortly after to restart all together. But do not exaggerate: as the rehearsal goes by, you can imperceptibly reduce time in order to obtain a quicker reply. Be sensitive and prudent about it.

- Use cardinal numbers for bars previous to the reference (Example: *five bars before figure **4***) and ordinal numbers for following bars (Example: *the fifth bar after figure **4***).

- Point out the score section you want to refer to, mentioning first if it is before or after the reference number or notation, and then the number of bars. Example: *Before figure **4**...eight bars*.

- If you have to count the bars, do not do it alone: invite the orchestra to count with you. Example: *Would you please count with me? Before letter Z, one, two, three, four, etc bars*. You will save valuable seconds.

-Do not spend much time rehearsing with only a section of the orchestra while the others remain at their stands. If you feel that you have to rehearse with just a part or family for longer time, invite the others to start the break or finish the rehearsal some minutes before, in order to work alone with those you need.

- Never start or finish the rehearsal with a work of difficult reading or, in the case of contemporary music, with a work whose graphical symbols require many clarifications. The best time to rehearse this type of work is the period prior to the break. When you restart after it, it is possible that the bad mood will have already disappeared.

- Try to sharpen your sensitivity to notice the little signs of tiredness or distraction while rehearsing some of the great repertoire *Adagios* (Beethoven´s *Ninth Symphony*, Bruckner, Mahler...), which require a special concentration from the performers. It is better to organize them in two or three consecutive sessions. In any case, rehearse them before the break; try avoiding the beginning or the end of the session.

- Depending on the works scheduled, if the general rehearsal falls on the same day of the performance and you have rehearsed properly before, try not to review *all the works entirely*. First, it is impossible to play twice on the same day such longer works and/or with a strong expressive compromise (Bruckner or Mahler symphonies, *Eroica, Pathétique*...). And secondly, it is always preferable to leave *some* expectancy for the public performance.

- When you ask or correct something to somebody, remember there are very few execution features on which you can assert they are *right* or *wrong* executed: only pitches

and durations. *The rest is relative and debatable*. Even the tuning of certain intervals is relative.

- Carry out your concept of the work with an iron fist but wearing a velvet glove to be able to fulfill it. Remember Bruno Walter, he was unrelenting in his efforts to achieve his aim, without being unfriendly and with almost a fatherly attitude and speaking to the performers in this terms: *It would be better to do it in this way…I would like to get that thing…I am not very happy about this…I will tell you what we are going to do… I would prefer…*

- Remember that an orchestra may accept anything you say but they will not accept it *in any way*. Address to them in a friendly and respectful way and everything you say will be accepted, even the most severe reprimand. Hysterical reactions and rage fits are not pertinent. It is worth to remember a *dictum* by Washington Castro: *An orchestra conductor has to be first and foremost a gentleman.*[26]

- Do not try to be a demagogue: really cultured orchestras detest demagogy.

- When coming in and out the rehearsal room, do not forget to greet the *Concertmaster*.

- When finishing the day, do not forget to thank the orchestra for the work done.

[26] Advise given to the author when he was "a conductor to be".

Study and practice repertoire

The repertoire suggested in this book[27] as study material comprises a number of musical pieces, works` movements and sections that, combined, cover a wide range of performing issues as well as of body-language techniques. There exist other works and fragments applicable to the development of those same skills. What I suggest throughout these lines was successfully applied in the university class. By means of this repertoire we try to set *principles*, and train the student to recognize cases in which such principles apply. Issues considered in this repertoire cover almost the totality of technical problems that conventional written music may pose to the orchestra conductor.

Proposing a basic repertoire to study musical and technical issues implies to set up a minimum library. A combination of different factors –economical, technological, idiomatic, of publishing market and a certain dose of taking the easy way out- has recently established photocopies and notes as the most bibliographic means used by students in order to meet the study programs demands. In any case, the fragments or movements that are useful as study and practice core theme cannot be separated from the whole work they are part of, as there are many characteristics of the whole that are projected over the parts, illuminating the meaning of its content. So, if it is not possible to buy an original score and you have to photocopy it, be sure to get the whole work, not only the part under consideration.

Furthermore, notes made the student declined his curiosity for bibliographic reference. This is yet possible in not well-stocked and quite out of date libraries, as generally found in some of Argentina´s musical education institutions. Searching for a specific topic in a library provides some knowledge, although roughly, of the existing bibliographical material and the theme contents, to which the interested student may resort to, over and over again, in order to broaden his knowledge on topics different from the one that motivated the research.

Some of the widely spread texts related to Orchestral Conducting bibliography include plenty of examples, which make possible to study and practice almost all the situations to solve through gestural technique. As for example, Max Rudolf´s classical *The Grammar of Conducting* includes almost five hundred valuable examples extracted from a wide range of composers from different times, even contemporaneous to the author. As critical observations to this relevant text, the examples´ concision may be highlighted – sometimes no more than two or three bars- as well as their presentation in a reduced score.

Another recent bibliographic contribution, Joseph Labuta´s *Basic Conducting Techniques*, not so in-depth and thorough as Rudolf´s one, contains as well plenty material

[27] Reference to Scarabino, G., *Temas de Dirección Orquestal, Teoría – Práctica*, 2012, Editorial de la Universidad Católica Argentina, used as textbook in the Conducting class.

for study and practice. Examples are longer, so Labuta seems to aim not only to orchestral conductor gestural language *grammar* but also to its *syntax*, that is to say linking different gestures during a larger fragment. Practice material is made in reductions to 4 voices without instruments specification, with the idea of a simple execution in the classroom by any available instrumental formation –even vocal. The objection to this text is that, as no instrument is specified, timbral and gestural spatialization factors are removed –that is to say who is the receiver to whom the communication aims to- with the consequent disregard of relevant features as number and kind of musicians involved, their placement, instruments character, etc.

To sum up: nothing is equivalent to or may substitute the whole and original score of the work used to study, solve and apply a gestural technique theme. And, certainly, nothing is comparable to disposing of a real orchestra made up of real people for its execution. Also, let us not forget that musical content of an extrapolate fragment may only be understood within the context of the whole work knowledge.

Below, there is a suggestion of a minimum score collection, an initial one, to get the necessary themes for a basic, interpretative and technical formation of an orchestral conductor. Later on, we will see the fragments to be studied for concepts formation and gestural skills application. A collection, as the one herein proposed, may include the following works, in their best available editions (*Urtext,* if possible):

Beethoven, *Symphony No. 1 Op 21*
---------- *Symphony No. 2 Op 36*
---------- *Symphony No. 5 Op 67*
---------- *Symphony No. 8 Op 93*
---------- *Symphony No. 9 Op 125 "Choral"*
Brahms, *Variations Op 56a ("Saint Anthony Chorale")*
---------- *Symphony No. 1 Op 68*
Debussy, *Prélude à "L'après-midi d'un faune"*
Mozart, *Symphony No. 35 K. 385 "Haffner"*
--------- *Symphony No. 36 K. 425 "Linz"*
--------- *Symphony No. 38 K. 504 "Prague"*
--------- *The Magic Flute K. 620*
Mussorgsky-Ravel, *Pictures at an exhibition*
Rimsky-Korsakov, *Sheherazade Op 35*
Schönberg, No. 1 and No. 2 of *3 Pieces for chamber orchestra (1910)*
Schumann, *Symphony No. 4 Op 120*
Stravinsky, *Petrouchka (1947)*

The study and practice of specific excerpts taken from said repertoire are detailed right after in their execution order and including some comments regarding educational aim.[28] When starting to study basic schemes, and before dealing with fragments herein suggested, it may be useful to study and practice fragments that require impulses and cuts in different bar times. In order to achieve it, the examples provided by Labuta and Rudolf may be positively applied.

[28] Reference to the said book.

The overcoming of the proposal requested in this material aims to develop *a technique*. Different from the pejorative sense in which Furtwängler used to refer to such term, meaning that the standardized technique coming out from books and practiced everywhere, tends to produce a standardized orchestral sound (quoted by Schonberg, H. C., *The Great Conductors*, Simon & Schuster, New York, 1967, p. 273), but just to attain the contrary, as a mean to collaborate with the sound production that the conductor conceives as the work concept component. A sound that springs from the discourse requirements, its articulation, intensity and color.

In each proposed composition, and faced with the alternatives they present, the technique must generate the essential response to communicate it. The analogy with the direct interpreter, performer or singer technique is obvious. Only the one who is in possession of a superlative technique may fluently face the requirements set out by works of a wide stylistic and expressive range. That is what is expected to achieve through the before mentioned repertoire. Within that context, interpretative and gestural observations tend to raise awareness, in the student or young conductor, of at least some of the themes that they should bear in mind while studying a score and preparing to execute it.

In order for the previous proposal to be fulfilled, you must understand that mechanically producing and resolving each issue is not enough. Once and again, teacher and student must ask themselves *why* and *what for* each gesture is made. Once and again, it would be necessary to examine the text, imagining it while being executed and producing the gesture that better matches the invitation for the performer to produce the desired sound. It is the path to achieve a complete technique that unlocks the key to the experience of *playing music together*.

Appendix 1 - Etiquette

Concert, opera or ballet performances are not daily, fortuitous events that just *happen.* From the engaged artists viewpoint, taking part in any of those performances entail a training and rehearsal period, a state of tension before and during the performance, and an intense, sometimes exhausting experience. All that in a particular area, auditorium or theatre, with a number of staff behind the scene invisibly collaborating. In certain opera or ballet staging the backstage personnel may generously exceed the people on stage. There are entrances, exits, greetings, applauses, thanks, and recognitions among the same artists that make up the group, and between them and the audience.

From the audience perspective, there is a particular willingness to assist a concert or performance, a timetable to honour, a ticket or subscription to buy, a dress code to keep. The attendance in itself adds a sociability component like the casual encounter with acquaintances and friends, the social gathering when arriving, during the interval and at the end of the performance.

All as a whole makes up a ceremony, and it is worth to discuss it's meaning, its relative importance and/or the current validity. We may argue in favor of a ceremony not being so solemn -we are not speaking about a vulgarization, which is a completely different thing- but even considering the greatest simplicity, spontaneity and absence of stiff solemnity, the presence of so many factors, the simple development of such a quantity of actions like entrances, exits, greetings, etc., demand the presence of a certain etiquette that order routine procedures and avoid hesitation or faltering.

Let us consider some items for the conductor's etiquette in the context of a symphonic concert with the aim of assisting the beginners, so they have a ready answer for the possible questions that will inevitably arise at some point: what is the dress code of a conductor? From which side he enters the stage? To whom he greets first before starting the performance: the orchestra, the *concertmaster* or the audience? To whom he greets at the end? Probably, the social situations listed below do not use up all the variables that this topic, supposedly insignificant, arises. However, I believe that presents a good outlook of subjects that have provoked questions and concerns by those who has the prospect of becoming conductors.

Orchestral layout

- Do not change the disposition of orchestral families when being the guest conductor, although they apply a layout you are not used to. They are indeed used to it and maybe for a long time having logically be familiarized with the space, hierarchy and acoustic consequences of their location in relation to the stage and auditorium characteristics. If is inevitable and really essential, suggest the modification with the same diplomacy as if you were visiting others people's homes and insinuate the owner to change the furniture or pictures disposition. Make the proposal to the principal conductor or if it is not possible, to the *concertmaster* in private not to feel out of place in front of the performers in the situation of a negative answer whatever the reason.

Attire

- During the concert, the conductor must wear clothing of the same or higher formal level than the orchestra members. If the orchestra members wear dark outdoor clothes, the conductor may decide to use the same type of clothes, a tuxedo, a morning coat in the late-afternoon (not common nowadays) or tails in the evening. If performers use a tuxedo, the alternative for the conductor is that same piece of clothing or tails. And finally, if the orchestra wears tails, the conductor must follow the same style.

- As regards women conductors, it does not seem advisable to emulate men's clothing –pseudo-tuxedo, pseudo-tails…- to conduct. There is a wide range of possibilities exquisitely ladylike as clothing regards, meeting the demanded elegance and comfort characteristics of the conducting task.

Conducting without the score

- No one more than the conductor concerns the decision of having the score in front or not: his collaborators just expect to be well conducted and the audience just expects to listen to good well-performed music. If not using the score, it can be kept closed in the stand. Or keep the stand empty during the execution. And if you consider that the stand on the stage is not convenient for whatever reason, do not have it taken away presumably before your entrance: it is a fact of aberrant exhibitionism. If you do not wish to use the stand, have it taken out before the audience enters the auditorium or during the interval when the stage lights are off and a large part of the audience left their seats.

When entering and before starting

- As long as possible, it is advisable to enter the stage by the *concertmaster* side. Walk normally with a natural look.

- It is usual that when the conductor enters for the first time, the orchestra stands. It is not necessary to repeat that action in successive entrances.

- When entering for the first time to the stage, greet first the orchestra through the *concertmaster* person by shaking his hand. Then, and before stepping into the podium, greet the audience. In successive entrances greet only the audience if they applaude. If there is no applause, go straight to the podium.

- When greeting the audience, do it in all directions and with some friendliness trying to reach with the eyes those who are in the farthest locations in relation to the stage. Do not forget to greet audience located in the upper seats. In the commonly known nosebleed section, you find the habitual 'consumers' of musical products: offer them your widest friendly expression.

- As soon as you step into the podium, invite your collaborators to sit and remain still until the auditorium murmur quiets down. Only then adopt the preparatory attitude and start the execution.

- It is perfectly understood that when adopting the preparatory attitude, the silence must be total. If you consider that is not, move your arms down and wait some instants before restarting the ritual. Avoid the temptation of turning your head *to burn* someone *down* with a glance even if it is somebody who is easily recognizable unwrapping candies in the front row: probably some 'neighbor' will do it for you.

At the end of the performance

- When a work execution is over and before greeting the audience, from the podium invite the orchestra to stand. Step down to the stage floor, shake hands with the *concertmaster* as a way of recognition to all the collaborators and only then greet the audience thanking the applause from the stage level, practically as if you were *another member of* the orchestra.

- Do not greet the audience from the podium. The podium is a functional accessory used to improve the collaborators vision. It is by no means a pedestal, nor are you a national hero whatever your artistic merits.

- The orchestra will be standing as long as the applause lasts, while you leave the stage and re-enter. If by any reason the orchestra has seated while leaving the stage, when entering back invite them to stand and greet together once more. It is the way of recognizing that the pleasure the concert arouse in the audience, the real applause reason, is the consequence of a narrow collaboration between you and the performers that executed your ideas.

- If you have influence on how the orchestra members stand to acknowledge the applause, suggest that they be in a position facing the audience, for which the string performers at the sides of the conductor should turn to the auditorium.

- Never give in to the temptation of hoisting the score that you have just executed during the following applause wanting to express that the merit belongs to the work and not to you or your collaborators. It is highly probable that millions of people have found the merits of composers like Mozart, Beethoven, Brahms and so many others before you for which that type of recognition is as unnecessary as demagogic.

Greetings from and with soloists

- In orchestral works with significant solos, do not forget to publicly recognize the task of the orchestra soloists. Invite them to stand when finishing the execution so they receive the acclaim before the rest of the orchestra or even yourself. Start by the ones who are farthest away and by sections –percussion and accessories, brass, woodwinds, strings and finally the *concertmaster*. This will serve as an aid not to forget any orchestral family. Invite the whole orchestra to stand only when all the soloists have acknowledged their corresponding applause. And only then –when the whole orchestra is standing- step down the podium and greet yourself.

Guest soloists

- Escort entrances and exits of all the invited soloists just some steps behind.

- When a soloist leaves the stage for the first time and you escort him, the reception applause is for the soloist, not for you (that probably has already conducted the overture). Do not ignore the audience, but measure your greeting: a smile or a nod is enough. Position yourself in the podium facing the orchestra and wait there for the applause dedicated to the soloist to quieten.

- If the concert begins with a work for soloist and you enter the stage with the soloist or soloists then the applause is to receive all of you including the conductor. In such situation, share the greetings and try to step up the podium and stand back to the audience at the same moment the soloist position themselves to start with their task.

- When ending the work with soloists, they are the main receivers of the applause: if you deem appropriate that the soloist in question deserve it, you may join the applause from the podium.

- It is the soloist who if feels it appropriate, should take the initiative of greeting the conductor when ending the joint execution and not inversely.

Composers and choirmasters

- If you have recreated an alive composer work who is in the auditorium during the execution, do not forget to make it part of the final applause, inviting him to step into or get closer to the stage or by pointing his location.

- The same goes to choirmasters in the case of a choral symphony work.

Stage exit

- The conductor escorts the guest soloists when entering and exit the stage

- Soloists are the ones to begin the exit out. If the conductor feels the time has arrived with the soloists showing no intention of leaving the stage, he may suggest it with a smile, but never take himself the first step out.

Theory of Conducting - Guillermo Scarabino -– Teoría – Práctica, © Editorial de la Universidad Católica Argentina, Buenos Aires, 2012, ISBN 978-987-620-197-1