

Possible Mental Models for the Conductor to Support the Ensemble Playing of the Orchestra¹

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Abstract

The paper attempts to identify tools to enable the conductor to prevent problems in ensemble playing (keeping performers together). The purpose is to derive systematic mental models, the implementation of which would enable the conductor to prevent or reduce musical losses in the typical problematic situations that inevitably arise during performance.

The author analyses passages from some of the musical works he conducted at the Estonian National Opera at the time of his doctoral studies (Estonian Academy of Music and Theatre, 2007–2011). The aim is to identify, from individual cases which led to success or failure, certain more general principles. Through the analysis of typical situations mental models are derived, and their implementation in practical conducting is described. The passages analysed come mainly from orchestrally accompanied recitative. This choice, based primarily on the fact that stage music and especially such passages clearly highlight problems of ensemble, also highlights the desire to connect theoretical research with practical problems experienced while conducting. The methodological model is based on the work of conductor and psychologist Georgy Yerzhemsky, additionally supplemented by the opinions of many other conductors.

While working as a conductor at the Estonian National Opera, I came into close contact with ensemble playing problems that occurred during performance situations (individual players' different feeling of metre, accidental mistakes, acoustic problems inherent to stage music etc.), which often result in appreciable losses in the ensemble of the orchestra as a whole. When thinking about what had happened after the event, I often felt that if I had acted differently in the same situation, I would have been able to prevent or minimise the musical loss. When problems arise during a performance, the conductor must work through a large amount of information in a very short space of time and react by taking action. For example, in the case of a soloist's mistake, the conductor has many choices – to try to follow the soloist with the orchestral accompaniment and bring him or her "back" to it later (for example with the next entrance), or to concentrate on keeping the orchestral part together, presuming that the so-

loist, realising his or her mistake, will reintegrate with the accompaniment independently. At such critical moments, the orchestra is also waiting for clear instructions from the conductor as to how to proceed, whether this be to "skip" a few beats and follow the soloist, or to continue steadily to perform the accompanying part as written, thus ensuring the consistency of the musical progression. I have repeatedly experienced that in such situations the basis for effective action lies in the conductor's thinking. Though every performance of a work is of course unique, I am often aware of the basic similarity of apparently different situations. Success in various "crisis situations" during which, despite unexpected events (an accidental mistake by a soloist, for example), I managed to avoid greater musical losses led me to search for similarities in the means I used which had proved effective. It was this desire to identify from individual cases certain more general principles for taking more effective action in problematic situ-

¹ The article is based on my doctoral thesis (in Music) *Three possible mental models for the conductor to support the ensemble playing of the orchestra* (in Estonian), defended at the Estonian Academy of Music and Theatre in 2011 (supervisor Professor Toomas Siitan), https://www.ema.edu.ee/vaitekirjad/doktor/Mihhail_Gerts.pdf.

ations – and ideally to prevent them from occurring – that prompted me to embark upon the research on which this paper is based.

1. The subject of the study

The hypothesis behind this study is the belief that it is possible to construct and apply certain mental models in conducting. Viewed individually, in every musically problematic situation it is possible to identify the factors which require effective intervention if the music is to work. Considering these same factors should therefore enable the conductor to prevent the emergence of certain musical problems in similar situations on a wider scale. Analysis of the effective actions and the other factors involved in various common situations should make it possible to create more general principles by which to prevent or minimise musical losses in typically problematic situations during performance.

The purpose of the article is to derive systematic mental models (principles), the implementation of which would enable the conductor to prevent or reduce musical losses during performance. By musical losses, in this work I mean primarily the problems of keeping the performers (orchestral players and soloists) together: in other words, ensemble playing. Ensemble playing is one of the more clearly observable technical components of any performance, the shortcomings of which are perceivable to also the regular listener. Analysing ensemble playing makes it possible to avoid making aesthetic judgements and thus to come to more objective conclusions. The long-time leader of the Austrian Radio Symphony Orchestra Dr. Viktor Redtenbacher states that extraordinary flexibility in dealing with unexpected situations is expected of an opera conductor (Redtenbacher 1984: 34). Since problems of ensemble are often related to the need for the players' greater attention to the conductor at a given moment (after a soloist's mistake, for example), the conductor's ability to recover from a problematic situation gives testimony to his or her reliability and professionalism.

To derive principles I shall analyse musical passages which have proven problematic when performing different works. I describe my actions while resolving these situations and analyse the basic factors behind successful and unsuccessful

solutions. I compare the conclusions formed during my analysis with opinions found in different literature in the field of conducting. I also describe the implementation of these conclusions in practical conducting and derive more general mental models based on the information from the whole process. While carrying out this research, such analysis accompanied me during every performance in front of the orchestra, both when conducting performances and when rehearsing. The main analytical material was video recordings of both rehearsals and performances (conclusions drawn at the time of performance may not always prove valid in the light of later consideration, as one's emotional state, the excitement of the moment and other factors may distort perception and one's mental image of the situation). As a theatre conductor I had the chance to put into effect conclusions drawn from theoretical analysis in the next performances of the work in question. Those means which proved effective I was also able to implement when conducting other works. I tried to compare and associate experiences from different situations and to develop more general, broader principles than mere solutions for specific situations. The passages analysed mainly originate from orchestrally accompanied recitative or recitative-like passages from different operas (there are also a few examples from ballet music and instrumental concertos as well). My choice of genre is based primarily on the fact that stage music clearly highlights problems of ensemble.

As far as I am aware, this subject has not been theoretically addressed in this context. Most literature in the field of conducting is focused on addressing the manual elements of the conductor's movements. Without diminishing the importance of these physical skills (the conductor's gestures), it is clear that these are just one of the necessary means of achieving a musical result. Trying practically to apply the gestural formulas found in conducting theory, I have experienced that there is no "universal gesture" which would always work as a solution in analogous problem situations (for example when ensemble partners are late in their entrance) (compare also Kondrashin 1976: 182). Looking at the concert stage it must also be acknowledged that many widely recognised conductors do not fit into the technical frames suggested in some theoretical works (for exam-

ple, Sir Simon Rattle, Christian Thielemann, Valery Gergiev, Gustavo Dudamel and Carlos Kleiber, to name but a few).

Conducting theory generally deals with conducting isolated from the performance situation (for example when describing different beating patterns, etc.). Conversely, while analysing musical works, it is common to stay within the confines of a single work without attempting to draw broader conclusions. Conducting theory, in fact, has not generally dealt with systematic guidelines to forge mental processes by combining musical endeavour, conducting techniques and the experience gained from performance with an orchestra. There are, however, individual exceptions, which I will reference in the current work.

Many well-known conductors emphasise the importance of mental elements to conducting in their theoretical works. Hermann Scherchen, Bruno Walter, Ilya Musin, Hans Swarowsky, Kirill Kondrashin, Frederik Prausnitz, Gennady Rozhdestvensky, Elizabeth A. Green, Kurt Redel and others write about conveying musical notions to the orchestra, inner hearing, inner conducting etc. Some conductors have dealt with constructs similar to mental models in their literature. Kurt Redel (who was also a violinist, a flautist for the Bayerische Staatskapelle, and who played under Richard Strauss) concludes his conducting textbook with the "ten commandments" of conducting ("Unsere zehn Gebote", Redel 2005: 99).² By these, Redel mainly means recommendations to make the process of rehearsal more effective. At the same time, Redel's "ninth commandment" ("limited instructions during the musicians' performance are efficient, but they must be used sparingly"), despite its controversial nature, suggests that Redel accepts the implementation of certain mental models at the moment of conducting. At the end of legendary Russian conductor and lecturer Ilya Musin's final monograph (2007), the author gives 69 (!) reminders to a novice conductor, consisting largely of individual recommendation about the movements for beating time. Within these guidelines one can find clues that Musin, too, allows the possibility of implementing mental models while conducting (for instance, "listen to the rhythm of

the accompaniment and conduct on that basis", etc., Musin 2007: 226). A similar recommendation can be found in the volume by Broke McElheran, author of one of America's most quoted conducting approaches ("listen carefully and adjust as required", McElheran 1989: 125).

Today, there are a number of individual attempts to deal systematically with a conductor's mental processes that make use of extra-musical disciplines relating to the topic. One such example is the work of conductor and psychologist Georgy Yerzhemsky whose scientific studies provide the methodical role model for my research. In his works, Yerzhemsky uses the term "ustanovka" (*установка*),³ meaning a psychological technique to achieve a certain objective at the moment of conducting. (Yerzhemsky 2007: 50, 222). As one such technique Yerzhemsky highlights the importance of the constant relaxation principle, the purpose of which is to continuously remind the conductor when conducting while at the same time maintaining control (*расслабление как психологическая установка*, Yerzhemsky 2007: 51).

In the context of the current research, Yerzhemsky's "psychological principles", Redel's "ten commandments", and the recommendations of Musin and Elheran can all be viewed as prototypes of a mental model. The opinions of these authors all testify to the possibility of operating with certain models or attitudes during conducting. Without wishing to sound too pretentious, I see parallels in the above-mentioned constructs with the concept of metacognition from the educational sciences (*thinking about thinking*, Peirce 2003: 1; Livingston 1997: 1). Conducting, too, may be observed as a constant learning process: during performance conductors constantly come into contact with new situations; to deal with them they must use previously acquired knowledge and experience, but also consider the information from the specific situation in the here and now. Making decisions becomes particularly vital in so-called "crisis situations", during which the orchestra is asking the conductor "what do we do now?" Experience shows that even the "answer" that seems simplest and most obvious

² Here can be observed the influence of Richard Strauss's "ten golden rules" ("Zehn Goldene Regeln. Einem jungen Kapellmeister ins Stammbuch geschrieben", 1925; Strauss 2014: 46).

³ Literal translation "setting", "installation".

may not immediately come to mind in such a situation. The purpose of the mental models to be established in this work is to help the conductor categorise incoming information and improve the effectiveness of his/her decision-making.

Conducting is an extremely multifaceted process consisting of many different layers. I believe that the key to solving a musical problem lies hidden in the synergy of all the various facets, of which the primary one is the conductor's thinking (compare Musin 2007: 22). Therefore the conductor must develop an "intellectual technique" (Kon-drashin 1976: 182), for which in turn they must first pass through the "school of awareness" (Walter 1961: 94). The mental models to be established in this research do not in any way claim to be final conducting truths. It is clear that the concept of the conducting process is directly connected to the conductor's wealth of experience – the more experienced the conductor and the more they have worked with different orchestras, the more versatile their notion of conducting. At the same time I find that the ability to analyse, make associations and look for systematic patterns is possible, whatever a conductor's experience. The process of creating mental models is important in the context of this article. The validity of any conclusions will emerge in their practice.

2. Basic methodological considerations

The conducting theory which summarises the previous generation of authors' works, in which practical conducting experience is combined with a broad knowledge of psychology and other extra-musical disciplines directly related to conducting, is summarised on the basis of the academic works of Russian conductor and psychologist Georgy Yerzhemsky (1988, 1993, 2007), which also provide the methodical basis for my work.⁴ Yerzhemsky is the author of over 60 academic

works, many of which have been highly rated by conductors such as Mariss Jansons, Ilya Musin, Juri Temirkanov, and many others. Yerzhemsky's monograph *For a XXI century conductor. The psycholinguistics of the profession (Дирижеру XXI века. Психолингвистика профессии; 2007)* is one of the most frequently referenced sources in my work. Any attempt to analyse conducting should start from a definition of conducting: this, viewed from the perspective of my research, will be the subject of the following section.

2.1. Conducting

The German conductor Hermann Scherchen stated in the 1930s that conducting is the intercommunication of people (Scherchen 1953: 246).⁵ At a time when conductors were often associated with despotism (Arturo Toscanini, among others, for example), it is extremely surprising to see such a human and essentially shrewd description of the profession. From what follows it would appear that many contemporary authors follow Scherchen's position when defining conducting.

Communication presumes the existence of a certain language. Indeed, many conductors do define the profession through language. While Hermann Dechant uses the literal term language in his work (*Sprache*, Dechant 1985: 13), Hans Zender talks about conducting as sign language (Roelcke 2000: 85),⁶ while researcher Clemens Lukas uses the term "non-verbal language" (Lukas 1994: 133). Sir Colin Davis mentions the term "motion vocabulary" when speaking of conducting, which also hints at the connection between conducting and language, but at the same time claims that "conducting is not a universal language" (Roelcke 2000: 105). This last claim is one that can surely be agreed with.

Similarly to Scherchen, conductor Mihhail Ju-rovski calls conducting the "art of contact", which

⁴ Georgy Yerzhemsky (1918–2012) is a conductor and pedagogue from St. Petersburg, honorary member of the International Academy of Psychology. Having graduated from Professor Leonid Nicolayev's piano class at the Leningrad Conservatory in 1941 (Nicolayev's other students included, amongst others, Maria Judina, Nikolai Perlman, Vladimir Sofronitski, Dmitri Shostakovich), after the second world war he worked as a conductor in the Leningrad Small Theatre (Malyi Theatre of Opera and Ballet; both before 1918 and now, the Mikhailovsky Theatre). In 1973 he started working as a lecturer in conducting at the Leningrad State Conservatory, where he defended his first doctorate in 1983. A constant interest in psychology and other disciplines led Yerzhemsky to doctoral studies in the field of psychology at the State University of Leningrad in 1990, where he defended his second doctoral work at the age of 76.

⁵ "Dirigieren ist eine Beziehungnahme zwischen Menschen."

⁶ It is possible that Zender is proceeding from the term "sign language", which is used by conductor Alfred Szendrei, amongst others. (*Gebärdensprache*, Szendrei 1952: 55–56).

hints at the communication between a conductor and the orchestra (Scholz 2002: 164; see also Musin 2007: 15). Though drawing direct parallels between conducting and verbal language may appear arbitrary, there is much common ground between collaboration with an orchestra and forms of speech and communication as a broader concept (compare Mehta 2006: 253; Barenboim 1994: 126; see also Wöllner 2007: 6).

Yerzhemsky sees the communicative cooperation between the conductor and the orchestra as conforming to forms of communication between people. Unlike regular speech, such communication is non-verbal, yet the process is subject to all the rules of communication (Yerzhemsky 2007: 65). As such, Yerzhemsky has come up with the most complete definition of conducting from the point of view of the context of this article: **conducting is a special form of inner musical speech and performance activities, which flows as constant communication and creative collaboration between the leader and the orchestra. Its essence consists of psychic processes: the feelings, emotions and moods which are evoked by the actively experienced relationship with the associative content of a work of music** (Yerzhemsky 2007: 37). The main purpose of a conductor's communicative activity is the attempt to express his or her artistic conception and subjective emotional attitude to the work being performed as fully as possible (Yerzhemsky 2007: 100).

A conductor's role may be seen as a three-part structure: personal preparation, the rehearsal process, and performance. Describing the purpose of the conductor's personal preparation, Ormandy finds that he "must be prepared to instantaneously make any adjustments, large or small, in the actual performance required for the fullest realization of his inner concept" (Ormandy 1969: vii). I find that during the preparatory work conductors can "arm" themselves to solve and prevent potential problems that lie in wait for them during performance.

2.2. A conductor's mental tools

2.2.1. Creating an image

Scherchen finds that the basis of conducting is the ability to plan the perfect performance of a musical work in one's imagination (Scherchen 1953: 247). Sawallisch calls such a notion the "ideal notion" (*Idealvorstellung*, Sawallisch 1993: 78). Many conductors build their performance upon their desired sound picture or sound ideal. In such a way Walter, Maazel, Furrer and Redel use the terms *sound ideal*, *Klangvision*, *Klangvorstellung* (respectively Walter 1961: 24; Scholz 2002: 197; Furrer 2002: 22; Redel 2005: 88). Without wishing to detract anything from the importance of such a sound ideal, however, the terms just mentioned do not adequately reflect the conductor's vision in terms of many other aspects of a musical work, such as the desired tempo or its formal structure.

Yerzhemsky dissects the process of creating a concept of a work of music in more detail, using the term "image-representation" (*образ-представление*).⁷ The integrated conception of the music to be performed is created by transferring the material from the score to the psychic sphere (internalisation),⁸ in which a subjective, inner ideal model of a work is created (Yerzhemsky: 2007: 123). In the initial phase of creation, a certain structural-reproductive model emerges from the score;⁹ subsequently, a cognitive layer (the creation of personal meaning) is added to this; and in the final phase, this is transformed into a complete, integrated musical concept (Yerzhemsky 1988: 13; Yerzhemsky 2007: 53). In the interest of clarity I will use the term "conception" in the remainder of this article. By this term I mean the comprehensive image of a musical work (both the ideal performance and the different stages of the rehearsal process).

2.2.2. Internal modelling of a performance situation

Creating a conception of a musical work is a complex, multi-layered process; at the same time it is the most important part of the preparation for a

⁷ Yerzhemsky's term, hard to translate, means literally "image-representation".

⁸ Internalisation is the psychological name for transferring external phenomenon into the psychic sphere.

⁹ Here one can observe a substantive similarity to Prausnitz's term *working image* (Prausnitz 1983: 15, 81).

performance. Kondrashin calls the conductor's work on perfecting the conception of a musical work "mental play-through" (Kondrashin 1976: 25); a similar term is also used by Prausnitz (*imaginary practice*, Prausnitz 1983: 79). In Yerzhemsky's approach, many of the peculiarities of a conductor's independent preparation work emerge when developing the conception of a musical work: "The conductor is required to clearly anticipate the many details of a certain musical situation ... the inner model [of a musical work] must reflect both the material in the score and the [possible] situation in the orchestra" (Yerzhemsky 1993: 31). Yerzhemsky calls this process of anticipating these sorts of external factors (for example, the possible reactions of the musicians in the orchestra) inner modelling, which is based on a process of identification (Yerzhemsky 1993: 50–51).¹⁰ As a conductor I see Yerzhemsky's inner modelling concept as an important aid when preparing for a performance. Through its use, the conductor is able to relate his/her actions to those of the musicians as they play their parts, and, in doing so, he/she is able to develop more effective plans of action to achieve his/her vision. In other words, conductors have the possibility to see themselves as if they were one of the musicians (or the soloist), and to try to understand what the player of one or another part expects from the conductor in a specific situation.

2.2.3. Anticipatory thinking as the basis for implementing mental models

Sir Simon Rattle believes that during a performance the conductor does everything one or two seconds earlier than the ensemble (Cobbers 2010: 25). Furrer also calls conducting "anticipatory showing" (*Vorauszeigen*, Furrer 2002: 8). It is obvious that anticipatory action is not possible without anticipatory thinking. Both Redel and Furrer often use the term "anticipatory thinking" (*Vorausdenken*, Furrer 2002: 94; Redel 2005: 65; see also Musin 2007: 141) when talking about conducting. Anticipatory thinking is a process that accompanies any musician's performance; however, I find it assumes certain specific characteristics when applied to the work of a conductor.

Yerzhemsky sees anticipation as the main tool with which the conductor's intentions are realised: "Conductors, with their thoughts and actions, must anticipate the orchestra's performance. Based on their 'inner prompter' (conception), they get the chance to actively create the music that is to come" (Yerzhemsky 2007: 131). At the same time, Yerzhemsky finds that the conductor's attention must be focused on the actual audible result, assessing it and analysing what is happening as the performance develops. Such control enables the conductor constantly to bring the orchestra's performance to match his/her own conception of a perfect performance (Yerzhemsky 1993: 237).

By constantly anticipating mentally the actual flow of a performance, it is possible for the conductor to use the systematic information found in his/her own mental model. The model can remind the conductor of likely events in certain situations or the consequences of the conductor's actions. This process is easiest to understand in multiple performances of the same work: in sections where there was a problem in a previous performance, one has heightened attention for the factors that caused the failure. I believe that similar conclusions can be transferred to conducting other works, which is an example of implementing a certain mental model. As a result of this, the conductor is able to some extent to reduce – or even prevent – musical losses during the performance. Mental anticipation is also discussed by Kondrashin and Musin: they consider it especially important while accompanying a soloist and believe that the success of an accompaniment depends on anticipating the tempo modifications of the soloist (*предвосхищение*; Kondrashin 1976: 98–99; Musin 2007: 87; compare also Dechant 1985: 401 and Järvi 1997: 248). Kondrashin, Musin, Dechant and Järvi's opinions all support the above hypothesis regarding the possibility of implementing certain mental models through anticipatory thinking.

2.3. A conductor's manual tools

Having considered the thought processes of a conductor, it is now necessary to describe briefly

¹⁰ The term identification was first highlighted by Sigmund Freud; nowadays the term is widespread, meaning assimilating yourself to someone or something (Yerzhemsky 1993: 51).

the principal manual tools used to realise a conductor's intentions (i.e. the outward and visible side of conducting).

In the literature of the great masters controversies concerning conducting technique abound. Richard Strauss said: "Instead of conducting using your hands, it would be better to conduct by hearing, the rest comes by itself" (Yerzhemsky 2007: 43). Many well-known conductors have expressed similar opinions more recently. Arturo Tamayo argues: "There exists a coordination between thinking, consciousness and movements. Movements always correspond to a conductor's conception, and this is immediately reflected in his/her motions." (Roelcke 2000: 102).

I have repeatedly emphasised the primacy of the mental plane in conducting; at the same time, however, conducting is largely manifested through the motions of the hands – a detailed internal conception does not make up for an inconsistent beat and incomprehensible upbeats.

Dealing with the connection between the mental and physical planes of conducting, Yerzhemsky believes that "external isolated actions which do not have internal psychic reasons do not exist in human nature. A motion is not primal, but the last (ending) phase of any mental act" (Yerzhemsky 2007: 40). This neatly explains the relationship between the mental and physical planes, which is also the basis for Tamayo's "coordination" and Strauss's "conducting by hearing". For Bruno Walter, too, without the purposeful functioning of the hand, "neither that correctness which I have called a prerequisite of spirited music-making, nor the entire gamut of lifelike tempi and expressions, the shaping of which depends on the conductor's gestures, can be attained." (Walter 1961: 86). In reality, the "purposeful functioning" of the hand requires a very detailed approach to the manual elements of conducting (compare also Scherchen 1953: 1). Every instrumentalist has to work to some extent to overcome physical difficulties with their instrument; similarly, in conducting, acquiring the necessary physical capabilities (the basis for directing a performance) can be very problematic.

Approaches to the theory of conducting gestures are many and varied, and have been pub-

lished in large numbers. Here I shall limit myself to describing a few of the components of manual conducting technique – the tools through which the conductor's mental models are realised in performance – that are relevant in this context. I shall begin with beating time.

2.3.1. Beating time

According to Yerzhemsky, "the purpose of beating time is to indicate, through certain graphic schemes, the metric and rhythmic organisation and development of the musical material" (Yerzhemsky 2007: 74). Beating patterns (2-in-a-bar, 3-in-a-bar, etc.) are well known to every musician, and form the basis for communication between the conductor and the orchestra. Prausnitz claims that beating is the only aspect of conducting that is possible to be systematically analysed (Prausnitz 1983: 17). Despite the fact that beating cannot be compared to the physical complexity of playing an instrument, I find that Hector Berlioz's opinion may still be considered valid today: "The skill of beating time is, despite its ostensible simplicity, hard to acquire... although a conductor's gesture is in itself a simple motion, there are cases, particularly relating to the subdivision of a bar, where these motions are significantly more complicated" (Ginzburg 1975: 71).

2.3.2. The upbeat and its component elements as a means to realise a conductor's intentions

Scherchen defines the preparatory beat (or upbeat, in German, the *Auftakt*) as a beat which matches the length of the metric unit following it and renders its length recognisable (Scherchen 1953: 203). Most authors agree with this definition. Despite the widespread English counterpart to the German *Auftakt*, the *upbeat*, academic works often use the term *preparatory beat* (Rudolf 1950: 7; Prausnitz 1983: 214; Fredman 1999: 28; Meier 2009: 17). The functions of the preparatory beat are: a) to define the beginning moment of a performance (breathing preparation) and to define the beginning of each bar; b) to define the tempo; c) to define the dynamics; d) to define the character of the initial attack (Musin 1967: 69).¹¹ The structure of the preparatory beat is described

¹¹ Redel shares this opinion: "In addition to tempo, the *Auftakt* contains information about the desired sound dynamic and character" (Redel 2005: 25).

differently by different authors. Musin and Green treat the upbeat as a three part complex, the elements of it respectively being: a) the preparation or lift (*замах, preparation*); b) the fall and the moment of the beat (*падение, ictus*); c) the recoil (*отдача, reflex, recoil*) (Musin 1967: 81; Green 1969: 19). Prausnitz and Meier, on the other hand, see it as a four part structure, separating the fall from the moment of the beat. (Prausnitz 1983: 47; Meier 2009: 9). Since an entire preparatory beat implies close association of all the components, I will use the three-part division, though noting the above differences.

The main condition of a typical preparatory beat is the equal length in time of the upward and downward movements; they must also be executed with equal amplitude (Musin 1967: 81). The speed of the upward motion defines the tempo of the next beat unit (Goldbeck 1951: 158). The upbeat is given both at the beginning of the work and for each following beat; the primary upbeat (*начальный*) indicates the moment the sound emerges, while the remainder of the conducting process works through the progression from one beat to the next (Musin 1967: 81).

Through the components of an upbeat, many musical elements are achievable – *rallentandos*, *accelerandos*, *fermatas*, *caesuras*, etc. With this in mind, many authors mention the connection between the amplitude of the conductor's beats and changes in tempo. A number of authors point to the possibility of speeding up the tempo by reducing the amplitude of the beat and slowing it down by increasing its amplitude (Redel 2005: 75; Furrer 2002: 109, 122; Prausnitz 1983: 288; Scherchen 1989: 186). Musin handles the effect of the components of the upbeat in greater detail, attributing the greatest importance to the bounce. Musin believes that

when speeding up the *Auftakt* between beats, the bounce motion assimilates the functions of the upward motion. Speeding up the bounce motion shortens the duration between the beats and causes the player to feel a sufficient feeling of speeding up. A smooth slowing of the tempo, on the other hand, is achieved by restraining the bounce [*торможение*], thereby creating a feel of heaviness to the hand motion, which in turn causes the corresponding effect on the tempo. A sudden speeding up

of the tempo is achieved by an upbeat given in the new tempo. In contrast, a sudden slowing down can only be accomplished with the bounce – slowing down the motion with an *Auftakt* given in the new tempo for the length of the new beat (Musin 1967: 110–113).

It is interesting to note that Professor Gustav Meier of the Peabody Institute shares an almost identical vision of the components of the preparatory beat to that of Musin, despite an interval of almost 50 years and a diametrically opposed cultural milieu (see Meier 2009: 46–47).

The frequent use of fermatas in operatic music is achieved through a beat without a bounce, where the motion of the hand is suspended at the moment of the fermata (Musin 1967: 198). According to Musin, for a short fermata it is convenient to continue the movement of the hand (going upward) in a slowed fashion and to give an upbeat based on the musical shape following the fermata. Fundamentally similar instructions or suggestions are also offered by Meier and McElheran (respectively *slowly upward motion*, Meier 2009: 325–326; *take your time on the way up*, McElheran 1989: 110). An upbeat with a slow upward motion is one of the most important techniques when beating recitative. By this means it is possible to increase the duration between two beats, which is often necessary to give “extra time” for the singer's breathing, fermatas, and other such things.

3. Problems of interpretation: analysis and guiding principles

In this section I shall analyse different musical problems arising from the score. I shall consider my own experience of successes and failures during performance, analyse the factors that caused them, and seek systematic means for effective action in similar situations.

One of the main musical problems with an orchestral accompanied recitative is that of individual players out of time with one another and the lack of unity between soloist and orchestra. I believe that one of the root causes of these problems lies in the distinctiveness of recitatives: their lack of a rhythmic stability and the articulation of the orchestral part in the presence of many rests and fermatas of undefined length hinders the emergence of the uniform metre necessary for

orchestral ensemble. Creating this, in this case, is the conductor's main task and challenge. In spite of the apparent simplicity, it is the process of indicating the empty beats (and bars) that leads to a large number of time-beating problems, and many deficiencies in ensemble are a result of the conductor's lack of clarity in indicating the rests and the ensuing upbeats. It is for this reason that I shall begin my analysis by considering the problems caused by such rests.

3.1. Marking

Unlike the terms preparatory beat (or upbeat) and time beating, in conducting literature there is a lack of a unified term for indicating rests. English works use the term *marking* (Del Mar 1993: 68; Meier 2009: 324). In Russian works, however, marking means quite the opposite, a certain emphasis (for example, underscoring – *подчёркивание*, Rozhdestvensky 1974: 55). As a match for indicating rests, the terms *откладывание* and *отсчитывание* are used to differentiate between the indication of entire empty bars and the indication of single rests, or empty beats (Musin 1967: 184–185; Rozhdestvensky 1974: 19). Furrer and Dechant use the almost synonymous verb *abschlagen* (Furrer 2002: 85; Dechant 1985: 258).

In my work I shall also use two terms to indicate rests. By “marking” I mean the indication of individual rests. When discussing the indication of completely empty bars – i.e. bars which consist entirely of rests, and which are indicated with “a flourish of the baton against the music stand or score” (Meier 2009: 324), I shall use the term to “show” (in Estonian orchestral practice, the term is *maha näitama*, literally to show off; *откладывание*, *abschlagen*).

Musin sees the difference between marking motions and standard time beating in terms of arc-like motions being replaced with straight ones, in which there may not be the preparatory upswing inherent to an upbeat (Musin 1967: 183). Furrer calls the marking gesture a “beat without impulse”, while Prausnitz uses the term “passive beat” (respectively *Schlag ohne Impuls*, Furrer 2002: 194; *passive beat*, Prausnitz 1983: 49).

3.2. Indicating all empty beats (bars)

Beginning my analysis with this example is symbolic for me – *La Cenerentola* was the first opera I conducted, and in the given bars I caused confusion in the first rehearsal, resulting in the separation of what should have been simultaneous entries in the orchestra. Beating this 6/8 section in

Example 1. Gioacchino Rossini *La Cenerentola*, No. 3, Duetto Cenerentola – Ramiro, bars 68–69 (time signature: 6/8, *Andantino grazioso*).

68

CEN.
CIN.

RAM.

Tutti *ff*

Cl. + Archi pizz.

[*p*] dolce

Fg., Cor.

tan
may

to.
not.

U - na
Such - a

Example 2. Sergei Prokofiev *L'amour des trois Oranges*, Act III, scene iii, rehearsal numbers 465–466 (*Moderato*).

465 LE PRINCE

(Très autoritaire)
f

Une né - gres-se?
Sel - le nõi - a?

Roi

Tu l'é - pouse - ras,
See - pä - rast nüüd

j'ai dit!
ta naid!

LES COURTISANS (surpris et épouvantés)

Ah!

465

f **ff** **f** Tr-ni, Timp.

466

Pr. *(Perplexe)*

ff *(Terrible)*

C'est ter - rib - le!
Küll on õud - ne!

Roi

Je te l'or - don - - - - - ne!
See on su saa - - - - - tus!

ff Tr-ni, Cassa

six, I gave an upbeat to the clarinet after an empty fermata. The first clarinet came in as I had anticipated, but the second clarinet, bassoons and French horns (assuming that it was the fourth, not the fifth quaver of the bar) came in a beat late, thus causing the tonic and dominant to sound simultaneously.

Though the above description could be regarded as the error of a novice conductor against the “basic tenet” of beating time during recitative, I will analyse the situation that arose in greater detail. While the soloist’s coloratura is metrically free, in the orchestral part at the same time there are two *tutti fortissimo* chords followed by two quaver rests (respectively the third and fourth beats of the bar, on which the third has a fermata). The players try to read every beat of the bar from the conductor’s beating. By failing to mark one beat (in the example in question the fourth beat), the orchestra lost a unified understanding of the metric progression of the music, the result of which was the misplaced entries – and the fault of which lay with the conductor. This is a clear example of a typical situation, with similarities to many moments in other musical works. As a generalisation, it may be said that marking all empty beats is the basic requirement of indicating rests: through this the conductor ensures the consistency of the

metric progression, which, in turn, guarantees the ensemble of the orchestral playing.

As mentioned above, one of the forms of marking rests is **to show empty bars as a whole**. Therefore it is essential to show all empty bars. Any experienced conductor may quite reasonably find such a statement obvious, or even unnecessary: so it is, in fact – but only until the moment something “extraordinary” happens.

During one of the performances of *L’amour des trois Oranges* I conducted, the singer performing the Prince failed to sing his line “Une négresse?” (Ex. 2). Apparently realising the mistake of his colleague, the performer singing the King continued with his line “Je te l’ordonne!” Following the part of the King I marked two bars and gave an upbeat to the trombones, but only one of three came in, the other two coming in a bar later. I realised immediately that the discord was caused by the fact I had not shown one bar (the bar where the Prince did not sing). Indicating that bar (the seventh bar after number 465) would have – despite the soloist’s mistake – ensured the metric progression in the orchestra, and thus the ensemble of the trombone group.

By the time of the incident just mentioned I had conducted approximately 20 different works of stage music. I was very familiar with the neces-

Example 3. Léo Delibes, ballet *Coppélia*, No. 2. Scène, bars 8–16 (*Andante*).

The image displays a musical score for Example 3, consisting of seven staves. From top to bottom, the staves are labeled: Fl. (Flute), Htb. (Horn), Vons I (Violins I), Vons II (Violins II), Altos (Alto), Villes (Violas), and Cb. (Cello). The music is in 3/4 time and features a melodic line for the Flute and Horn, with various rests and dynamics like 'p' and 'pizz.' indicated. The score shows a sequence of notes and rests across the staves, with some notes marked with 'p' (piano) and 'pizz.' (pizzicato).

sity of marking every beat and I had always acted accordingly, but in a problematic situation I could not put the principle into practice; in other words I was unable to divide my attention while reacting to the incoming information and fulfil the priority of marking every beat. From this conclusion I constructed a principle (a basic mental model), by which I would first and foremost deal with problematic situations by adhering to the importance of marking every empty beat. I thus recognised that, whatever the problematic situation, my primary objective should be to mark all empty beats, and thus ensure the most important element – the consistency of the metre, which is the basis for orchestral ensemble. Some time later I was able to adhere to that principle in an unexpected performance situation.

During a performance of *Coppélia*, the flautist made a rhythmic error in bar three of the section in the example 3, playing the double dotted note twice the length it should be. Faced with this situation, I this time managed to stick to the principle of marking every empty beat, which was my priority. I marked every beat in the third and fourth bars, making sure that the oboe and violins would come in at the correct time. The flautist realised the mistake in seconds, skipped bar four, and the last bars were performed exactly according to the score. Failure to follow the principle of marking all the beats, and instead trying to link up with the flute part (correcting the soloist), would most probably have caused confusion amongst the orchestral players and a loss of ensemble.

The above description reveals the priority of marking every empty beat when reacting to problems with the ensemble. My successful implementation of my own conclusions encouraged me to continue looking for systematic factors in different forms of marking.

3.3. Two ways of marking

In conducting literature, generally two different ways of marking are dealt with. The first category might provisionally be called **following the soloist**, or **following marking**. Musin believes that “in melodic recitative, which the soloist performs in an even, steady tempo, rests should be marked in the tempo of the soloist’s part”. Musin sees the need for using such a method of following the soloist in cases where the orchestral part contains melodic fragments which tie in with individual

phrases of the soloist and create an integral whole with the vocal part (Musin 1967: 184).

According to Musin, this type of following marking conveys to the orchestra the understanding that the conductor is listening to the soloist and is basing his beating on the soloist’s part. Furrer, in turn, finds that “the orchestra can feel when the conductor is following the singer, this inspires the orchestra to give their own contribution to the success of the ensemble” (Furrer 2002: 35). Relying on Furrer’s assertion, I have myself noticed that experienced orchestral players always listen to the soloist when performing an accompaniment.

It follows from this that when the motifs in the soloist’s part have a rhythmically clear structure, following marking facilitates the creation of a stable feeling of metre in the orchestra, which is what orchestral ensemble is based on.

The second main marking style is known as **rapid marking**. This term is used to indicate single rests or whole empty bars by, amongst others, Meier, Rozhdestvensky and Musin (respectively, *rapidly conducting through the tacet bars*, Meier 2009: 321; *опережение*, Rozhdestvensky 1974: 99; *зблаговременное отсчитывание пауз*, Musin 1967: 186). Meier believes that “by showing rests [empty bars], the conductor is better prepared to ensure the next entrance of the orchestra, since following a freely interpreted soloist’s line is confusing for the orchestra due to the inconsistent beats” (Meier 2009: 321). By showing the rests in this manner, the conductor can obviate the need to follow the soloist’s part as it sounds and help the orchestra to understand that the shown beats or bars do not have to be related to the solo part. In this way, the attention of the orchestra is free to focus on the conductor’s next upbeat.

In the light of the above, the decision as to which of the two forms of marking to use depends on the construction of the solo part: if there is a steady metre in the recitative, it is practical to use following marking; otherwise rapid marking should be used. I have noticed, however, that the boundary between a solo part that supports or does not support a steady metre can often be quite indistinct.

What clearly emerges from the above considerations, whichever form of marking is used, is the need for constant mental anticipation on the part of the conductor in order to ensure readiness for

unexpected situations (including incidental mistakes by members of the ensemble). The descriptions in the above examples highlight the fact that in a problematic situation the conductor has an extremely limited amount of time to make a decision. The more connected and systematic the conductor's tools are, the greater the likelihood that he/she will be able to react effectively in unexpected situations.

4. Mental models

4.1. Mental model 1: The principle of anticipatory marking

My belief in the feasibility of a single, complex mental model is based on the need for constant mental anticipation when implementing the above methods of marking (following marking and rapid marking). Consequently, the distinction between the marking methods relates to the tangible, operational, anticipatory stage; but in essence both methods should be anticipatory.

In terms of time, following marking is the less anticipatory of the two, as in this case the conductor is marking the tempo of the soloist's part as it is performed. At the same time, following marking must be accompanied by constant mental anticipation on the part of the conductor, as this ensures his/her readiness to react to anything unexpected. Showing the rests is the more anticipatory method, as in this case the conductor is in effect beating well ahead of the soloist's part. Between these two extremities, however, there exists the possibility of varying the level of anticipation according to the specific musical situation. Therefore we may talk of a coherent, anticipatory marking method which unites both the above methods – following marking and indicating the rests – to form a framework which carries the principle of anticipatory marking. The basis for such a principle would be that previously discussed of marking all the rests. The anticipatory marking model would therefore be constantly reminding the conductor of the importance of indicating all the beats in musical material with many rests.

I see the above mental model as one of the main tools through which implementing the anticipatory marking principle would enable a reduction in the incidence of musical losses during performance. Based on the idea of marking all the beats in any situation, the conductor would assure the consistency of the metric progression,

even in an unexpected situation – for example, if the soloist were to make a mistake (see also the description in Example 3 above). Anticipatory marking would gain for the conductor (and orchestra) time to react and would enable him/her to focus on the following upbeat, thus improving the orchestral ensemble. Amongst other things, anticipatory marking would help reduce possible delays in the orchestra's response.

4.2. Mental model 2: Considering different factors

It is evident that a conductor has to consider a large number of different factors during performance – for example, the acoustics of the room (when balancing the orchestra), production elements (when conducting stage music), the musical conception of the soloist (when leading the accompaniment), and so on. Without attempting to offer a comprehensive analysis, in this section I shall discuss a number of individual factors which may help support the orchestra's ensemble.

In the previous sections, two activities specific to the orchestra have been repeatedly mentioned – the way in which the orchestra listens to the soloist while accompanying him/her, and the slight delay of the orchestra in reacting to gestures by the conductor. Since both of these aspects are of great importance in the communication between the conductor and the orchestra, it is opportune to address them briefly in the following sections.

4.2.1. The players' independent consideration of the soloist

It is generally well-known that experienced orchestral players constantly follow the soloist when accompanying them and link their parts to the soloist's. References to this can be found in Furrer (2002), Kuhn (1993), Redtenbacher (1984) and the works of other authors. Comparing this process with my own personal experience as a pianist, I see an interesting phenomenon: when playing as an accompanist, synchronising fermatas, caesuras and other such expressive tools with the singer is not necessarily problematic. However, as a conductor, I am aware of a potential problem in a similar accompanying situation. The reason for this is that while accompanying a singer at the keyboard I can make judgements based on the soloist's impulses; as a conductor, however, I actually have to anticipate the impulses of the so-

loist in order to ensure good ensemble, otherwise the orchestral accompaniment would be late.

Observing the “behaviour” of the orchestra when, for example, timing fermatas with the soloist, I have noticed that in many cases harmonising the ensemble with the soloist causes no problems for the orchestra – everyone is listening to the soloist and, supported by the conductor’s gestures, times their part according to that of the soloist. On the basis of this observation it seems fruitful to consciously use the orchestra’s relation with the soloist to support the unity of the ensemble. Conducting is communication – just as the players follow the conductor, the conductor must also proceed from the actual playing of the orchestra (constantly bringing this closer to his/her own image of the desired sound). This does not in any way mean giving up the leadership function of the conductor, but suggests a certain attitude, by which the conductor lets the orchestra know that he is aware of their personal connection with the soloist and is relying on it. Thinking in such a way also allows some of the principles of chamber music to be transferred to the orchestra in order to support the players’ ensemble. At the same time, I believe that it is not possible to rely on the activity of the orchestra in this way if this is at the expense of the kind of continuous mental anticipation on the part of the conductor that ensures his/her readiness to react to unexpected incidents.

It is clear that the independent relating of the orchestral players’ parts to the soloist requires a certain amount of time. In the next section I will briefly discuss the phenomenon of so-called orchestral delay, an awareness of which – together with the independent relationships of the individual players to the soloist – provides an important resource to ensure the synchronicity of the ensemble.

4.2.2. The phenomenon of orchestral delay as the orchestra’s own tool to ensure ensemble

The delay in the audible response from the orchestra in relation to a conductor’s gestures is mentioned by many conductors. Both Edwards and Solti claim that “German orchestras play with a certain delay” (Roelcke 2000: 97; Solti 1993: 208). While Edwards adds that “delay can also be encountered in other countries”, Musin generalises: “responding to a conductor’s gesture with a delay is inherent to a high level orchestra”. Musin states

that “every orchestra is late to a different degree” and sees a proportional relationship between the level of the orchestra and degree of the delay: “the more important the orchestra is, the more delay there will be” (Musin 2007: 54, 79, 87). A “slightly delayed orchestral response” is also recognised by Redtenbacher, distinguishing between lower and upper instruments, the cello and double bass having a larger delay than the violins and violas (Redtenbacher 1984: 45, 47). The phenomenon of orchestral delay is also discussed by Yerzhemsky (2007: 78) and Luck (2000).

A certain means of self regulation can be seen in the orchestra’s delay. Since all instruments produce sound in a different way, the players need a certain amount of time to synchronise their ensemble in, say, a *tutti* entrance. Because of this delay in relation to the conductor’s gesture, it could be provisionally known as “conscious delay”. The problems which are important in the context of this paper – the delay of the orchestra when trying to unite the soloist’s and orchestral parts – has been summarised very pertinently by Dechant: “When accompanying a soloist, the conductor must conduct slightly ‘ahead’ [of the actual sound] (*vorausdirigieren*) to achieve harmony, to compensate for the reaction time of the ensemble partners and the delay caused by spatial distance” (Dechant 1985: 400).

A certain inertia can be seen in the phenomenon of orchestral delay – every change in tempo requires preparation from the orchestra and takes time to carry out. Sudden changes of tempo (for example, reacting to a mistake by the soloist) may cause a degree of disunity if the conductor ignores the factors mentioned above. The players may be able to notice some sort of action on the part of the conductor, but they may not have time to coordinate their response amongst themselves. When disunity occurs, a certain amount of time is required to recapture the lost unity, during which the players and conductor must work together to regain a solid sense of metre.

I find that taking account of the phenomena described above (the independent connection of the orchestral players’ parts, and conscious delay) provides a tool for the conductor to support the ensemble playing of the orchestra and soloist. In the following sections, in which the focus will be on the analysis of problems arising directly from the score, I will explain this in greater detail.

4.2.3. Unexpectedness as a tendency – shortening rests

From the standpoint of the unity of the ensemble, every unexpected situation is problematic. Doubtless every musician has experienced the difference between a rehearsal and a performance situation. During performance, factors such as excitement and feeling the presence of the audience, to mention but two, create an atmosphere the like of which it is not possible to experience beforehand. I have felt that in operatic music this matter expresses itself mainly in the use of *agógica* on the part of the soloists – often during performance there will be large agogic fluctuations in the soloist’s phrasing when compared to the rehearsals. The largest concentration of agogic freedom emerges especially during recitative or recitative-like passages. It is understandable that during performance the soloists try to make the most of a work’s dramatic tensions, and so they “compress” time. On the other hand, the density of text in the recitatives may also create the need for a fuller articulation of the phrases. In some cases, however, agogic freedom may endanger the metric progression of the music.

In bars 18, 19 and 20 (*Maestoso*), Ex. 4, the orchestral chords have a very clearly defined metric

structure. During one of the performances I conducted, Dorabella entered with her cue “fuggi” (bar 18) half a beat early. Sensing that in this situation it was not possible for me to change my marking method, I marked the rests based on the metre of the chords and at the same time gave the next upbeat in the same tempo, ensuring the synchronicity of the orchestral chords. As a result of this, there was an excessive gap between the end of the soloist’s phrase and the orchestral chord that followed. In the second act of the same performance, a similar situation occurred – again the soloist entered earlier than expected. I could give more such examples, but these will suffice here: my conclusion is that soloists seem to have an inclination to shorten rests or feel empty beats faster than the actual metre. This inclination mainly emerges in intensive, “dramatic” sections. What has been said must not be necessarily taken as a negative comment: the desire to compress time may stem from the desire to enhance the dramatic tension. Acknowledging the likelihood of shortening rests I was able to react more effectively in the situation described in the next example.

With the possibility of compressing rests in mind, I had a premonition when analysing the score (Ex. 5) that in this section the singer per-

Example 4. Wolfgang Amadeus Mozart, *Così fan tutte*, Dorabella’s recitative, Act I, bars 16–23 (*Maestoso*).

The image displays a musical score for Example 4, consisting of two systems of vocal and piano accompaniment. The vocal line is written in soprano clef (Do) and the piano accompaniment is in bass and treble clefs. The tempo is marked *Maestoso* and the dynamics include *f* (forte). The lyrics are: "Deh, fug-gi, per pie-tà, fug-gi, fug-gi, fug - gi per pie - tà, la - scia - mi so - la." The score shows the vocal line and the piano accompaniment for bars 16-23.

Example 5. Giacomo Puccini, *La Bohème*, Mimi and Marcello's duet, Act II, bars 6–13 (*Allegretto*).

The musical score for Example 5 consists of three systems. The first system features Marcello's (MAR) vocal line in the bass clef with lyrics "s'al - za... mi cer - ca... vie - ne..." and a piano accompaniment in the grand staff. The piano part includes a triplet of eighth notes marked *p* and *a tempo*. The second system features Mimi's (MIMI) vocal line in the treble clef with lyrics "Ch'ei non mi ve - da!" and Marcello's (MAR) vocal line in the bass clef with lyrics "Or rin - ca - sa - te, Mi-". The piano accompaniment includes markings for *col canto*, *a tempo*, *mf*, and *fp*. The score is in the key of D major and 3/4 time.

forming Mimi might respond immediately to Marcello's command "viene" with her line "ch'ei non mi veda" (bar 10, marked *rapidamente*), thus shortening the prior rest beat. At the same time, the French horn's accent (*fp*) must coincide with Mimi's word "veda". The following string accent (*mf*) must in turn follow *a tempo*. Delay in the orchestral accompaniment would doubtless serve to break up the continuity of the section. Being aware of the possibility of the soloist compressing the rests, I marked in advance the rests in the ninth bar and showed the tenth (implementing the principle of anticipatory marking). During performance, my premonition of a shorter rest was confirmed. Thanks to implementing the anticipatory marking principle, I was able to gain time to react and link the orchestral accompaniment to the soloist's *agógica*.

As with shortening rests, the conductor must take into account many factors during performance. Meier believes that an operatic conductor must be aware of the singer's weaknesses and strengths, anticipating situations where the singer needs special treatment (for instance, extra time for breathing) and adapting to such situations (including slowing down, speeding up, fermatas, etc. Meier 2009: 309). Although considering the singer's breathing is a well known norm, I will discuss this factor briefly below as a methodical point of reference for the more general principle of "consideration".

4.2.4. A well known principle – the consideration of breathing

Meier's quote expresses a common point of view, according to which the conductor must consider

Example 6. Mari Vihmand, *Armastuse valem* [The Formula of Love], No. 6, bars 9–16.

9

Fl. *mf* *mp* *p*

Ob. *mp* *p*

Nina
 süü-tan o-ma si-ga-re-ti, Si-nu-le möt - len Si - nu - le möt - len, kui kuu - lan muu - si - kat

V-ni I *p* *mf*

V-ni II *mf* *p* *mf*

V-le

Ve.

Cb.

13

Fl.

Ob. *p* *mf*

Cl. *mp* *mp* *mf* *pp*

Nina
 Si - nu - le möt - len Si-nu-le, kui loen raa - ma - tut Si-nu-le möt - len, ma möt - - - len Si-nu-le

V-ni I *mf* *mp* *f* *mf* *f*

V-ni II *mf* *mp* *f* *mf* *f*

V-le non div. *mf*

Ve.

Cb.

the soloist. From the quote, it becomes evident that this principle is realised by adapting to many different factors (tempo changes, etc.), the most important of which is the singer's breathing. When discussing the issue of taking into account the time required for a singer's breathing, Furrer finds that breathing may cause a delay in tempo (Furrer 2002: 212). The validity of Furrer's opinion can primarily be observed in passages with a rhythmic accompaniment, where the shift in metre due to the time consumed by the singer's breathing can be one of the causes of separation between soloist and orchestra. According to the generally accepted norm, the conductor's task is to articulate the accompaniment and ensure the soloist has enough time to breathe. I will discuss implementing this principle on the basis of the example 6.

In this section, playing the quintuplets in the wind instruments' parts evenly requires a steady sense of a regular metre. At the same time it is likely that the singer must breathe between the two-bar phrases. In this section it is safe to assume that the measure of time required to breathe might not coincide with the pulsing metre of the quintuplets. Being conscious of the singer's need to breathe and relying on the orchestra's independent consideration of the soloist, the conductor, by lengthening a beat (for example by slowing the upward motion of an upbeat), can demonstrate to the orchestra that they must "wait" for the singer between her phrases (motifs). The orchestral players in turn understand that the conductor is taking the singer's breathing into account and can take this into consideration when linking their parts with the singer's material and the conductor's gestures.

4.2.5. The soloist's *portamento* as a means to support the ensemble¹²

The abundance of fermatas and the looser approach to *agogica* in romantic music can occasionally cause great difficulties in ensuring good ensemble. How long will the soloist hold a fermata, and how can the conductor time correctly the entry of the orchestral accompaniment that follows it? These are the questions that have often created the greatest stress for me as a conductor.

In performance, during which all attention is focused on the development of the work, awaiting a soloist's fermata is a very tense moment. I must admit that I have often entered with the orchestra before the end of the soloist's fermata, which is rightly considered as something unwarranted. A soloist's fermata (on a high note), in addition to being a musical means of expression, is also an indicator of the vocalist's ability. It is really splendid to hear an "endless" high note: but how can one ensure the timing of the orchestra at the same time?

Analysing my own "impatience", I reached the conclusion that I had often ignored the soloist's *portamento*. In the context of this paper, the soloist's *portamento* can be seen – similarly to their breathing – as a component of the upbeat: being a binding element, *portamento* carries within itself information about the moment of arrival of the next note, as if it were introducing the next note. The main problem with fermatas is the fact that they may often exceed some sort of expected duration. I have heard many conductors express a similar opinion. While a fermata of "normal" length might not cause problems, in some cases the duration of the soloist's fermata demands nerves of steel from the conductor. This is where I see *portamento* as a means to synchronise with the orchestra.

The section in Ex. 7 is one of the places where the soloist's fermata may significantly exceed the expected length. In accordance with well-established traditions, the soloist may not breathe during the change from bar five to bar six. Every singer wishes to show off their abilities, and during performance the conductor's only chance is to observe the soloist's fermata. At the same time, soloists also want the orchestra to remain in time with them. For this reason, it is likely that in connecting to the note after the fermata the soloist would use *portamento*, which gives a signal to both conductor and orchestra. Similarly to breathing, instrumentalists (string and wind instruments) also use *portamento*. Because of this, though orchestral players execute it differently to singers, they are also able to interpret the soloist's *portamento*. Finding support from the orchestra's independent consideration of the soloist, the

¹² In the context of this work I mean mainly a *portamento* which ends a long note, or resolution note.

Example 7. Giacomo Puccini, *La Bohème*, Rodolfo's aria, Act I, bars 25–33 (*Andantino affetuoso*).

ri - na, le di - rò con due pa - ro - le chi son, chi son,

e che fac - cio, co - me vi - - - -

pp a tempo *poco affrett.* *a tempo*

conductor, in turn, is able to use consideration of *portamento* as a tool to support the ensemble.

4.2.6. The consideration principle as a complex mental model

The consideration principle is based on two of the orchestra's self regulation tools – the independent consideration of their parts and awareness of the delay phenomenon. It is as if the orchestra is constantly reminding the conductor that while, on the one hand, it is possible to rely on the orchestra's independent consideration of the soloist to help unify different components of the performance, on the other hand the conductor must allow a certain amount of time for their actions, this being necessary to coordinate the ensemble of the orchestra. Independent consideration does not spontaneously ensure good ensemble, but the conductor is able to foster it, and this no doubt helps. An awareness of the orchestra's need for time to achieve good ensemble constantly reminds the conductor of the need for

anticipatory thinking to help avoid delay in the orchestra's response.

The consideration principle consists of taking into account three points. First, being aware of the tendency to reduce the length of rests, when supported by the marking principle, enables the conductor to anticipate losses in ensemble stemming from faster than expected phrasing by the soloist. Secondly, taking the soloist's breathing into account helps the conductor to structure the accompaniment and compensate for the amount of time it takes the singer to breathe, thus also ensuring that orchestra and soloist keep together. Thirdly, considering a singer's *portamento* is helpful when dealing with agogic elements (fermatas, *tenuto*, etc.) to synchronise the resolution note.

The fact that common elements may be found in the consideration principle and in the previously discussed principle of anticipatory marking (taking account of the tendency to shorten rests) indicates that the two principles are not unrelated. I see this as a positive point, because the more

systematic a conductor's thinking is, the greater the probability he/she will be able to react effectively in a crisis situation.

4.3. Mental model 3: The principle of leading when conducting an ensemble consisting of solo part plus accompaniment

As has been stated above, the problems of combining the solo and accompaniment parts are directly related to the principles of marking and consideration. The need to combine the two parts is obvious and understood by all concerned – it is on this that the whole construction, integrity and tension of the performance depends. Just as I previously stressed the need to take into account the tendencies of *agogica*, breathing and *portamento*, I believe that the singer's part itself contains clues that facilitate its successful combination with the accompaniment. An important tool for connecting the orchestral and solo parts may be called timing the upbeat. Since timing the upbeat is a well-known principle, I will limit my description of this technique to its essential elements.

4.3.1. Timing the upbeat

Meier and Green consider timing the upbeat to the corresponding beat or syllables in the soloist's part a tool for uniting the solo and orchestral parts (*timing*, Meier 2009: 322; Green 1969: 109). Such an upbeat may be called a syllable-based or beat-based upbeat, or we may speak of the beat-based timing of an upbeat. A similar definition is used by Dechant (*Vortakt für den Auftakt*, Dechant 1985: 255). I will describe this on the basis of the following example 8 taken from *Così fan tutte*.

In the first two full bars of the example, the singer's last two quavers (respectively *tristo*, *disperato*) create a clear sense of metric movement. In cases where the soloist's part supports a regular metre, it is useful for the conductor to try to time the upbeats according to the soloist's part, basing them on the singer's beat or syllable (this includes orchestral motifs starting with an anacrusis, accentuated chords, etc.). The timing of the upbeat will help the orchestra understand that the conductor wishes to ensure that the orchestra's next entry will link up with the solo part. This

Example 8. Mozart, *Così fan tutte*, Dorabella's recitative, Act I, bars 1–4.

RECITATIVO
DORABELLA

Ah sco - sta-ti, pa - ven - ta il tri - sto ef - fet - to d'un di - spe - ra - to af

f p

Do.
fet - to!
All. assai

Chiu - di quel - le fi - ne - stre...

f

in turn favours the orchestra players' own individual consideration of the soloist (important motifs in the solo part are often marked in the orchestral sheet music), which reduces the chance of the orchestra coming in late.

Timing the upbeat is a well-known tool to ensure the unity of the orchestra and soloist, and it is on this that I shall base the following analysis of problems of ensemble between the orchestra and the soloist.

4.3.2. The conductor's leading impulse when accompanying soloists

In recitatives (and also instrumental concertos) the orchestral part often plays an accompanying role. There are many commonplaces regarding the conductor's function when accompanying a soloist – for example “listen to the soloist and accompany flexibly”. At the same time, in practice I have felt that accompaniment actually requires very active leading from the conductor. Thinking about the many situations in which I have encountered problems accompanying a soloist, it seems that common to all of them was the lack of any active input from the conductor. Barenboim believes that “accompanying” (more exactly “following”, *folgen*), is in itself the wrong term, because it means being behind (*hinterher sein*; Barenboim 1994: 136). Musin and Kondrashin's views about the success of anticipating a soloist's modifications of tempo emphasise the priority of the conductor's proactive input when leading the accompaniment. I shall consider this argument using my next example (Ex. 9) as a basis.

Beating time following the soloist I could react to the soloist's line with a gesture; however, since the time required for the orchestra to coordinate their response among themselves would have to be added to my own reaction time, the accompaniment would immediately be behind the soloist (due to which an already slow tempo would get slower). The reason the orchestra falls behind can be seen as the lack of a leading impulse from the conductor. Thanks to the personal connection between the orchestral players and the soloist, the ensemble can be expected to recover in the following beats, but this does not make up for the uncertainty of the first beats.

When there is a lack of any leading impulse, the orchestra tries to compensate independently, for example speeding up to catch up to the soloist. If this sort of acceleration is not led by the conductor it is likely that the ensemble will fall apart as the speed of every player's acceleration will differ, and trying to follow the leader of each instrumental group might not ensure synchronicity. To support the above argument, I will describe a particular incident I once encountered (Ex. 10).

Being aware of the orchestra's personal connection with the soloist, I ventured to experiment during one rehearsal and stopped beating time during the section in question, trusting the orchestra to keep their ensemble. In the two previous rehearsals I had actively led the ensemble in this section (including the soloist), and since both times the passage had gone off without a hitch, I thought it would be worth trying. The result, however, was a lack of unity between the or-

Example 9. Mozart, *Così fan tutte*, Fiordiligi's aria, Act II, bars 1–4.

FIORDILIGI

Per pie - tà, ben mio, per - do - na al - l'er - ror d'un' al - ma a - man - te; fra que -

Adagio

p

Example 10. Pēteris Vasks, Violin concerto *Tālā gaisma* [Distant Light], bars 2–10 after rehearsal number 37.

The image displays a musical score for Example 10, consisting of two systems of staves. The first system includes staves for Vn solo, Vn I, Vn II, Va, Vc, and Cb. The Vn solo part features a melodic line with triplets and is marked with 'poco a poco accel.'. The Vn I and II parts are marked with 'poco a poco cresc.'. The Va, Vc, and Cb parts also feature 'poco a poco cresc.' markings. The second system continues the Vn solo part and includes staves for Vn I, Vn II, Va, Vc, and Cb. The Vn solo part is marked with 'sub f' and 'tenuto'. The Vn I, Vn II, Va, Vc, and Cb parts are also marked with 'sub f'. The score is written in 4/4 time and includes various musical notations such as triplets, slurs, and dynamic markings.

chestra and the soloist and eventually the playing came to a halt. My instinct that the problem was lack of any leading impulse from the conductor was confirmed by a question from the orchestra: “are we ahead or behind?”. The players had started compensating for the lack of any leadership from the conductor by following the soloist themselves. Since, however, reaction times and musical sense differ from player to player, the ensemble lost unity. On the basis of the above description, I

would argue that clear direction from the conductor ensures a uniform speed of *accelerando* from both orchestra and soloist, and guarantees the necessary unity.

Clear direction from the conductor becomes even more important in sections with many soloists, because then the basis on which the orchestra can consider the soloist independently is blurred. The above reasoning leads me to one further belief, namely that in certain situations it

is not only the accompaniment that requires active direction from the conductor, but the soloist as well.

Furthermore, on the basis of the above argument I would go as far as to claim that in certain circumstances the active direction of the conductor should lead the orchestral accompaniment ahead of the soloist.

4.3.3. Conscious outpacing

Combining the orchestral accompaniment and the soloist's part may, at times, require preference to be given to one component rather than the other. In practice, I have experienced that although the orchestral part is the accompaniment, it is not always possible to base the beat on the soloist – for example when there is a certain degree of agogic freedom in the vocal part, but where the orchestral part requires a steady sense of metre. In this case the conductor may abandon synchronising each beat with the singer. This means that the conductor consciously outpaces the soloist, while at the same time continuing to beat time. The principle goal of outpacing is to support the development and tension of the music. It is obvious that overdoing this can cause the ensemble to break down, just as the lack of a leading impulse can. An (excessive) acceleration on the part of the conductor destroys the development of the performance in the same way that a lack of impulse does.

In considering the problems of accompanying a soloist, I have based my analysis on the need to ensure a good ensemble between the orchestra and the soloist. I have discussed anticipatory marking, the timing of the upbeat, and a consideration of breathing and *portamento* as tools which allow the conductor to follow the *agogica* of the solo part. Unfortunately, in practice I have found several situations in which it is not fully possible to synchronise the orchestra with the soloist. During such situations, the fate of the whole performance depends on the actions of the conductor. I will now analyse some situations that I have experienced personally.

4.3.4. Conscious abandonment

Unlike the thinking of a pianist, where the whole accompaniment is in the hands of one instrument and the options for action are very wide, an orchestral accompaniment is divided between many different instruments. Such an ensemble demands (also between the players) much greater coordination and involves many rules that must be followed if unity is to be ensured. One of these concerns the inertia mentioned above (the phenomenon of delay) – modifications in tempo require the preparation of the orchestra and take a certain amount of time to execute. In the case of metric fluctuations, recovering the feeling of metre (which is the basis for a stable ensemble) also requires time.

Example 11. Giuseppe Verdi, *Un ballo in maschera*, Riccardo and Amelia's duet, Act II (*Allegro, alla breve*).

AMELIA

RICCARDO

Gran Dio! Ah! Ah mi la-

Teco io sto. Ti cal-ma... Di che te-mi?

f

In Ex. 11, the string chords on the weak beats of the bar demand a steady sense of metre. During one performance of *Un ballo in maschera* I conducted, the performer singing Riccardo entered a beat early with the line “Teco io sto”. Sensing that trying to link up with the singer’s missed beat might cause disunity in the orchestral chords, I continued beating solidly, ensuring the ensemble of the orchestra. The actor playing Amelia realised her stage partner’s mistake and followed with her line “Gran Dio” in time with the orchestral chords, after which Riccardo got back in time. Even though the description can be seen as a random mistake, in practice such incidents are very frequent.

From the description of the previous incident it is clear that trying to link up with the soloist at any cost may, in certain situations, cause even greater losses of ensemble. Because of this, one should sometimes abandon the attempt to follow the soloist. It may be easier for the soloist to adapt their part to a sure and steady orchestral accompaniment (played by dozens of musicians) and compensate for their mistake. This may even go unnoticed by the listener, while lack of unity in the orchestra irritates everybody in the hall. I regard this thinking as the principle of conscious abandonment. When implementing it, at certain times the conductor gives up following fluctuations in tempo in favour of steadily beating the orchestral part, preventing the breakdown of orchestral ensemble.

4.3.5. The principle of leading

Based on the need for constant anticipatory mental and physical actions during performance and considering the delay of the orchestra as a means of self-regulation, the leading principle is based on the leading impulse and on the timing of the upbeats on the part of the conductor. By means of this principle, it is possible to maintain the constant unfolding of a work (which is the basis of holding the audience’s attention) and directly ensure the synergy of multiple musical elements. The significance of the leading impulse is further amplified during modifications of tempo and in works with multiple soloists, because during these situations the orchestral players’ consideration of the solo parts is blurred. A leading impulse

also supports conscious outpacing in order to achieve the coherence of the whole performance. The leading impulse can also express itself in the conscious abandonment of the attempt to follow the soloist’s fluctuations in tempo. The purpose of conscious abandonment is used to maintain the continuity of the performance and the ensemble of the orchestra.

Implementing all three principles relies on constant mental anticipation; this then allows the conductor to implement the principles during performance. Implementing them does not in any way mean executing each mental model in a specific way. In a real performance (especially stage music) nothing ever goes quite to plan. The given principles are dynamic mental models which allow the conductor to constantly modify his/her actions depending on the actual situation.

5. Conclusions

At the dawn of contemporary conducting, Nikolai Rimsky-Korsakov admitted, after a concert conducted by Hector Berlioz, that “conducting is an obscure field” (Fredman 1999: 7). Thinking about the field of conducting, analysing it, and comparing the theoretical approach of many different authors, one must admit that Rimsky-Korsakov’s conclusion still holds true in the 21st century. A complicated relationship with the underlying activity of every musician, creating sound, makes conducting an “obscure field”, a subjective activity, one in which it is hard to reach uniform conclusions.

Thinking back over the successes and failures of my career, a common factor is involved – the conductor’s thinking. An inability to act fast and effectively enough at certain moments (including when a musically problematic situation has occurred) causes losses in ensemble. On the other hand, a conviction (and awareness) of what is primarily important in a particular circumstance has enabled me to prevent losses in ensemble in many different situations. My intention in this paper has been to find certain underlying truths which may help the conductor’s mental preparedness – truths which are more widely applicable than the individual situations from which they spring. Implementing the derived mental models could simplify the conductor’s course of action

in musically problematic situations (for example, the random mistakes of ensemble partners) and eradicate – or at least limit – losses in ensemble.

When observed separately there is nothing new about the tools I have discussed – they are well known to any conductor. What could be novel, however, is my attempt to place them in the context of actual problems experienced in practice and to systematize individual tools into broader categories which can help the conductor to act in crisis situations – in other words, to avoid the worst when something starts to go wrong. In addition I have experienced, and described in this

article, that the basic techniques of conducting are not at all easy to put into practice in a problematic situation. This implies not only the necessity of coherence among the basic principles but also the need to acknowledge their overriding importance. The larger the flood of information during performance, the shorter the time for the conductor to react becomes. It is my belief that the categorisation of the information in the mental models described above may go some way towards simplifying the conductor's actions in real performance situations.

Translated by Christopher Carr and Richard Carr

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Dirigendi mõtlemismudelid ansambli mängu toetamiseks orkestris

Mihhail Gerts

Artiklis püütakse leida vahendeid ansambli mängu probleemide (orkestri lahusmäng, solisti ja orkestri lahus olemine jne.) dirigendipoolseks ennetamiseks. Eesmärgiks on tuletada süsteemseid mõtlemismudeleid, mis võimaldaksid dirigendil toetada orkestri koosmängu ning võimaluse korral hoida ettekandel ära ansambli mängu kaotuste teket. Koosmängu probleemide tekkimisel aitaks mõtlemismudelite rakendamine minimeerida muusikaliste kaotuste ulatust.

Mõtlemismudelite tuletamiseks analüüsib autor lõike oma doktoriõpingute ajal (Eesti Muusika- ja Teatriakadeemia, 2007–2011) dirigeeritud teostest. (Artikli autor oli sel perioodil Rahvusooperi Estonia dirigent.) Tüüpsituatsioonide analüüsist tuletatakse mõtlemismudelid. Kirjeldatakse ka järelduste rakendamist praktilises töös. Peamiselt pärinevad analüüsivad lõigud ooperite orkestrisaatega retsitatiividest, kuna neis on koosmängu probleemide kontsentratsioon suur. Lavamuusikale keskendub autor ka soovist seostada teoreetiline uurimus praktikas kogetud probleemidega. Metodoloogiliseks eeskujuks on dirigendi ja psühholoogi Georgi Jeržemski [Georgy Yerzhemsky] teadustööd, lisaks tuginetakse paljude dirigentide seisukohtadele. Artikkel põhineb autori 2011. aastal kaitstud doktoritööl (juhendaja prof. Toomas Siitan).¹

Probleemsete lõikude analüüsi tulemusena kujunes välja kolm printsiipi, mille eesmärgiks on abistada dirigenti muusikaliste kaotuste võimalikul ennetamisel, probleemi ilmnenemise korral aga võimalikult efektiivsel tegutsemisel.

1. Ennetava markeerimise printsiip. Pideva orkestrisaate puudumine (või selle hõredus) võimaldab solistil retsitatiivides eksponeerida sõna rütmi, kasutada *rubato*'t jne. Sellest tulenevad markeerimise põhiprobleemid, mis seisnevad solisti agoogilistele vabadustele reageerimises ja nendega haakumises.

Printsiibi tuumaks on ennetav markeerimine, millele vastavalt markeerib dirigent orkestrisaate pauseritud lõigud juba ette. Ennetav markeerimine võimaldab dirigendil võita aega reageerimiseks solisti retsiteerimisest tulenevatele meetrilistele kõikumistele. Printsiibi rakendamisel on otsese tegevusliku ennetamise määra võimalik varieerida, kasutades vajaduse korral printsiibi kahte pöördkuju: järgivat markeerimist ning pauside mahanäitamist. Säilitades pideva mõttelise ennetamise impulssi (mis tagab valmisoleku ootamatustele reageerida), on järgiv markeerimine muusika otsest kulgu kõige vähemal määral ennetav markeerimisviis. Selle rakendamisel markeerib dirigent pause solisti tempot järgides, kasutades solistipartii materjali meetrumitunnetuse toetamiseks orkestris. Pauside (tühjade taktide) mahanäitamine ennetab aga muusika reaalsel kulgemisel kõige suuremal määral. Mahanäitamine vabastab teatud hetkeks osa orkestri (ja dirigendi) tähelepanust solisti jälgimisel, koondades selle vahetult järgnevale dirigendi auftaktile.

2. Arvestamise printsiip. On ilmne, et saatefaktuuri mängimisel tuleb arvestada solistiga. Sealjuures on ka orkestri saatefaktuuri mängul teatud seaduspärasused, millega arvestamine võimaldab dirigendil toetada ansambli koosmängu. Arvestamise printsiibi rakendamine baseerub orkestrantide iseseisva partiide suhestamise, s.t. solisti jälgimise ja temaga sünkroniseerimise teadvustamisel. Toetumine orkestri eneseregulatsiooni vahendite ei kahanda dirigendipoolse juhtimise vajadust ega aktiivsust, vaid stimuleerib orkestri omapoolset partiide suhestamist, mille toel võib saavutada ansambli parema koosmängu. Samuti võtab printsiip arvesse ka orkestri hilineemist, püüdes tagada orkestrile koosmängu sünkroniseerimiseks nõutavat ajaühikut, kuid tuletades samas dirigendile pidevalt meelde mõttelise ennetamise vajadust.

Arvestamise printsiip ehitub üldtuntud hingamisega arvestamise põhimõttele. Hingamisega arvestamisel püüab dirigent ette aimata laulja hingamiskohti ning arvestab nende lõikude takteerimisel laulja hingamiseks vajaliku (lisa)ajaga. Valmistades ette laulja hingamiseks kuluva ajaühiku vastava auftaktiga, nivelleerib dirigent võimaliku meetrilise nihke tekkimist orkestripartii ja laulja vahel.

¹ „Dirigendi kolm võimalikku mõtlemismudelit ansambli mängu toetamiseks orkestris“, https://www.ema.edu.ee/vaitekirjad/doktor/Mihhail_Gerts.pdf.

Lähtudes orkestrantide iseseisvast partiide suhestamisest solistiga oleks dirigendil võimalik käsitleda solisti hingamist ning *portamento*'t ansamblimängu toetamise vahendina. Mõlemas eelnimetatud vahendis on auftakti elemente, mis aitavad ühendada orkestripartiid solistiga. Haakudes ennetava markeerimise printsiibiga on arvestamise printsiibi kolmandaks komponendiks võtta arvesse solistidel sageli esinevat pauside lühendamise tendentsi. Nii saab (ennetava markeerimise printsiibi toel) ära hoida solistide oodatust kiiremast fraseerimisest tingitud ansamblimängu kaotusi.

3. Juhtimise printsiip. Juhtimise printsiibi rakendamise eesmärk on tagada solisti partii ning saatefaktuuri ühtsus ettekande vältel. Mõtlemismudel baseerub auftakti ajastamisel – solisti retsiteerimises on võimalik leida teatud pidepunkte, mis lihtsustavad auftaktide andmist ning toetavad ansamblipartnerites ühtse meetrumitunnetuse teket. Selleks ajastab dirigent võimalusel oma auftaktid solistipartiiga löögi- või silbipõhiselt. See hõlbustab orkestrantide iseseisvat partiide suhestamist solistiga, mis omakorda toetab ühtse meetrumitunnetuse teket, kindlustades orkestripartii õigeaegse sisseastumise. Printsiibi kandva telje moodustab dirigendi juhtiv impulss, mille kohaselt suunab dirigent ettekandel aktiivselt saatefaktuuri ning solisti. Seeläbi on võimalik hoida teose pidevat arengujoont (millest omakorda sõltub kuulaja tähelepanu köitmine) ning tagada otseselt paljude muusikaliste elementide koostoime. Juhtimise impulss tähtsustab veelgi tempomuutuste ning mitme solistiga ansamblike puhul, kuna siis hägustub orkestri jaoks partiide suhestamise alus. Juhtimisimpulsi toel on võimalik ka teadlik orkestri-saatega solistist etteminemine ettekande vormilise terviklikkuse eesmärgil.

Samuti võib juhtimisimpulss väljenduda teadlikus loobumises järgida solisti meetrilisi kõikumisi. Teatud olukordades (solisti eksimused, äärmuslikud agoogilised kõikumised, aga ka saatefaktuuri eripärad) võib püüdlus haakuda solistiga pigem suurendada muusikalisi kaotusi orkestris. Teadliku loobumise põhimõtet rakendades loobub dirigent lähtuvalt orkestripartii koordineerimise vajadusest teatud hetkel solisti järgimisest, tagades erinevate vahenditega (ühtlane takteerimine jm.) orkestri koosmängu.

Eeltoodud kolme printsiibi rakendamine ei tähenda mingil juhul ettevalmistatud mõtteliste või liigutustlike stampide kasutamist. Olles dirigendipoolse ettekande tervikliku juhtimise teenistuses, on printsiipide rakendamine üks dirigeerimiskompleksi vahendeid, millel on ka üksikuid võtteid siduv funktsioon. Nii saab dirigent näiteks ennetava markeerimise printsiibi abil (võites aega solisti agoogilistele vabadustele reageerimiseks) õigeaegselt ajastada järgneva *tutti* sisseastumise auftakt. Juhtimise printsiibi rakendamine võimaldab arvestada laulja hingamisega jne.

Printsiipide osa dirigeerimiskompleksis varieerub vastavalt konkreetsele olukorrale, olles kantud vajadusest tagada ansamblipartnerite ühtse meetrumitunnetuse järjepidevus ning ettekande terviklik juhtimine. Samuti on toodud mõtlemismudelid omamoodi „planeerimise relvaks” (Jeržemski [Yerzhemsky] 1993: 53, 232), mis aitavad dirigendil ettekandeprobleemideks valmistuda. Eraldi võetuna pole nendes vahendites midagi uudset – need on hästi teada igale dirigendile. Uudne võib olla nende asetamine praktikas kogetud probleemide konteksti ning püüd süstematiseerida üksikud vahendid laiematesse kategooriatesse, mis toetaksid dirigendi tegutsemist kriisisituatsioonis. Nagu on öelnud Daniel Barenboim, on „oma tegevuse mõtestamine igasuguse loomingulisuse alus” (Barenboim 1994: 21). Dirigendi eriala komplitseeritus muudab enda tegevuse mõtestamise vajaduse erakordselt teravaks. Eeltoodud mõtlemismudelites sisalduv kategoriseeritud teave lihtsustab teatud määral dirigendi tegutsemist esinemisolukorras.