A Method of Preparing Piano Plays for Limiting the Stage Distress of Performers

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Abstract
A research made upon musician-performers of different concert experience show that the main stressors afford influence upon stage self-confidence of the player are fear of forgetting the musical text, fear of technical defects, of unconvincing interpretation, of insufficient training. The more significant among them is the fear of forgetting the musical text. These stressors are subjective, which means that it is possible to limit their effect with appropriate methods of training. The method of preliminary verbal dictation which I submit, is a combination of pronunciation of the tone names, representing the text of musical composition with playing the piece in slow tempo by heart. The main effect is raising reliability of reproduction of the musical text by rehearsing its own rhythmicity, continuity, precision, completeness, previousness, and, the most important – limitation of the negative impact of main stage stressors, and a favourable influence on the quality of performance before audience.

Keywords: stage stress, preliminary verbal dictation, piano performer

Introduction
Besides being a Doctor of Psychology, I am also a piano performer. This means that these lines are not only the result of extensive research on the stage stress, but also the result of years "suffered" personal concert experience. I have experienced all three forms of stage stress response, which I describe. For this reason the presentation turned out to be somewhat emotional. It is too personal for me to present it in another way.

Scope, purpose and objectives
The recorded during exercise accomplishments of students studying piano at the Academy, where I work, compared with the performance of same students during exams, observations on the preparation, demeanor before and during concerts not only students but also of experienced artists with extensive experience on performance before audience give me grounds to say that the stage stress affects both inexperienced students, applying a limited number of techniques for learning musical works and established musicians with great performance practice and many and varied means for preparing the music material for performance before audience. This means that the approaches used are insufficiently effective to prevent negative forms of stress response in music performers. On the other hand, we have not yet clarified the nature of the stage stress situation, i.e. what makes the performer uncertain. This requires the objective of this study to be the creation, testing and demonstration of the effectiveness of a method for preparation of a musical piece for performance before audience, which assists in limiting the stage distress of performers. The realization of this objective is related to the following tasks: clarifying the specifics of the stressful stage situation, identifying the main forms of response in performers and exploring the possibility of a beneficial influence on the stage stress response and quality of performance through training. Since the stage experience and the available methods for studying the plays are insufficient to create confidence in the soloist, which is confirmed by experienced interpreters, it is necessary to develop and assaying a new method.

Instrumentarium
Clarifying the main characteristics of the stressful stage situation and the reactions of performers began with preliminary studies. The first is a content analysis of interviews with 10 students with small concert experience, 10 students from the Academy, where I work, with broad stage experience and 10 active concert performers with higher education and experience of playing before audience.
The results of this analysis were used for: identifying stressors with the greatest significance in stage situation, identifying the principal types of concert stress response, structuring the survey questionnaire, and later - comparing the results of the studies (content analysis and questionnaire), preparation of indicators for assessing the types of performance stress response, which became the basis for the implementation of pedagogical survey.

The second study - a survey-questionnaire of 82 participants - 31 school students, 25 students and 26 adult performers with broad concert experience. Data from the survey were used for: determining the level of stressogenic importance of each of the major stressors in a stressful stage situation, clarifying the impact of age and professional experience on the type of performance stress response, tracking the age dynamics in the amount of applied methods for the preparation of the musical work for performing before audience compared to the performance stress response, to systematize and summarize information from pedagogical survey.

The Pedagogical Survey, the most extensive study that included 317 students from the Academy, where I work, provides an abundance of factual material to supplement, clarify and add detail to the picture of each of the three forms of performance stress response, to compare the results with those from other studies. As a further support and confirmation of the main study I have attached: analysis of 56 recitals and orchestral performances of prominent Bulgarian solo performers, testimonials of 7 world-famous concert musicians.

The materials from these additional studies support the statement that stage distress is known also to interpreters with maximum preparation and great concert experience. All these preliminary studies, except for their specific purposes, were used as the basis for positioning of an experiment conducted with 128 students from the Academy, where I work, and comparing the results of preliminary studies with the experimental data in the part which is comparable with them (initial establishing experiment, all results in the control groups). This is to put the research on a broader basis (subsequently it was proved that the findings of other studies with different participants have a statistically significant match), and greater confidence in the accuracy of positioning the experiment. The main purpose of experiment is the approbation of a method of preparing plays for performing before audience for limiting the experience of negative forms of stage stress.

Study of stage stress

The first result of the preliminary research is a model of stressful stage situation and its impact on the performer. The uniqueness of each stage appearance, in which play a role inspiration and improvisation (in the nature and extent of application of the performer’s means of expression), the need for any random change in the motive habits instantly to change accordingly the following actions, failure to correct defects and the obvious need immediately to identify effective measures to conceal errors and return to the correct performance, allow me to determine the stage stress (performance stress) as stress of rapid and incorrigible reactions.

It was ascertained that subjective stressors dominated both in quantity and stressful significance among the factors affecting the music interpreter. Relatively objective, respectively, receiving lower impact assessment are the stage conditions as certain listeners and noise in the audience, the characteristics of the concert instrument, acoustics, lighting, temperature, but the performer will determine whether and how they will influence his performance. Of the listed above only the first two stressors show significant impact. The comparison of the results of the survey and the content analysis of the interviews set out the following structure of the stressogenic impact of the concert situation:

<table>
<thead>
<tr>
<th>Classification Number</th>
<th>Stressor</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Forgetting</td>
</tr>
<tr>
<td>2</td>
<td>Technical flaws</td>
</tr>
<tr>
<td>3</td>
<td>Insufficient preparation</td>
</tr>
<tr>
<td>4</td>
<td>Unconvincing interpretation</td>
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<tr>
<td>5</td>
<td>Certain listeners</td>
</tr>
<tr>
<td>6</td>
<td>Insufficient stage experience</td>
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<tr>
<td>7</td>
<td>Previous failures</td>
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<tr>
<td>8</td>
<td>Remarks of the pedagogue</td>
</tr>
<tr>
<td>9</td>
<td>Noises in the audience</td>
</tr>
</tbody>
</table>
As it is seen from the table, the most powerful stressor – pointed on the first place by 50% of the participants surveyed and 47% of the interviewed – is the fear of forgetting the musical score. This is a convincing proof that the stage performance anxiety is most of all a fear of forgetting.

This picture of impact of the stressful stage situation sustains the following conclusions:

1. The definitely higher stressogenic significance and the obvious quantitative dominance of subjective stressors over the relatively objective ones suggest that the response can be kept under control by means of adequate training.

2. As the fear of forgetting significantly exceeds the other stressors in terms of its stressogenic vividness, in order to limit experiencing unfavourable forms of stage stress response, efforts should be directed to a great extent to efficient memorizing of the works prepared to be shown on the stage.

The information gathered from the contents analysis was also used for developing indicators for identifying the different types of stage stress response necessary for exercising pedagogical survey. These indicators are: 

- emotions, attention, pre-start and stage behaviour, performance quality, reactions in case of mistake, correspondence between adaptation processes and stage situation (state and dynamics of the adaptation process). The great amount of data given at interviews and polls, supplemented by pedagogical survey, and after the end of the experiment – complemented with the initial results of all persons included in the experiment and the final results of the participants in the control groups made it possible for me to create a picture of stage stress response. These outlined three types of response – positive form of active stage stress response and negative forms – hyperactive and passive stage stress response.

The active stage stress response is characterized by: enthusiasm, experience of joyful excitement or calmness, absorption; focused attention; before performance at the stage it is typical to do actions of immediate necessity – concentration in the character of the plays, revision of the tempo; the following is characteristic of the very performance: easy immersion, convincing creation of musical characters, in case of changes in the emotional tone of the musical image the transformation into the new character is timely, in case of contrast – sharp, noticeable, the movements are correct; in the rare cases of mistakes fast orientation in the musical score is typical so that the mistake usually remains unnoticed by most listeners, and if it is impossible for it to be concealed, the performer has enough self-control to improvise until reaching the first familiar part. These observations suggest the conclusion that there should be mobilization and use of adaptation energy adequate to what is necessary for the stage situation.

Hyperactive stage stress response (commonly known as „stage fright” – as it is the most common form its symptoms give basis for the common name of performance anxiety in general) is easily recognizable by: uncontrollable emotions, being easily affected, fear, insecurity; attention is also characterized by increased ability to detect incidental noises; prestart behaviour typically includes well manifested joyfulness, talkativeness, frequent practicing to the very last moment until appearing before the audience, in some cases (with more severe forms of reaction) – hands trembling; the performance is frequently with a tempo faster than planned, hurried, with incorrectly played tunes, unfinished pauses, lack of „breath”, uncontrolled culminations (intonation inaccuracy often comes exactly in the culmination moment), „excessive emotionality”; it is usually more difficult to conceal mistakes, a certain degree of chaos of actions is possible – return to previous moments and repetition, new defects when reaching initially incorrectly performed moments. These manifestations are explained with of excess of adaptation energy.

Passive stage stress response is characterized by: law spirit or apathy, unwillingness (lack of impulse) to participate; in spite of all efforts attention remains unfocused; prestart behaviour is characterized by sleepiness, limpness, finger stiffness is possible; the performance is usually with dynamic amplitudes smaller than the ones set for the music image, emotionless, monotonous, not emotionally binding the listener, tendency for slowing down the tempo is typical; in case of mistakes actions are also chaotic but not so feverish as the ones of those experiencing hyperactive stress response, interruptions are not untypical, sometimes – oppressive pauses, loss of sense for position of the played moment within the total musical score.

Comparing the two negative forms, there is definitely greater chance for favourable outcome – successful performance, smoother manifestation of symptoms – with hyperactive reaction. No participant in the tests suffering from passive stress response has ever described a mild form of its progress and stage success and such a variety has never been observed in anyone.
Negative manifestations of concert stress are definitely most widespread and hyperactive reaction is the most common – among poll participants, it is mentioned as most often experienced by 60% of schoolchildren, 72% of students and 67% of adult performers. Interviews show similar percentage – hyperactive reaction is the main form of stage stress for 50% of schoolchildren, 70% of students and 50% of graduates. These data indicate that professional experience is not a sufficiently effective means of counteraction against fear of performance before audience. The great number of persons experiencing hyperactive reaction (mobilizing more than the necessary adaptation energy) young and established performers indicates that they perceive stage performance as a very strong stres sor. This in its turn suggests the conclusion that antistress preparation of concert artists is insufficient. Some age dynamics is observed about the two types of concert stress response. The passive form of stage stress is mentioned as typical by 13% of schoolchildren, 8% of students and 0% of adult performers. Active reaction is defined as typical for concert performance by 27% of schoolchildren, 20% of students and 33% of graduates. This partially favourable development does not result only from building up professional skills and habits but also from the artist’s personal maturing.

The relation between subjective evaluation of stage stressors and reactions resulting from them is surveyed in the interviews following the methods of Charles Ogust for relation between concepts. It is the following – what provokes the most unfavourable passive reaction of stage response are mainly the following stressors: fear of forgetting, insufficient preparation (the notion for it may also result from memory insecurity), “unconvincing interpretation”. In general, the reasons for the so high stressogenic significance of fear of forgetting in performers are connected with the following:

- Once made, memory mistakes may seriously and negatively affect the quality of the forthcoming part of the performance. There are often interruptions and returns to previous moments that distract performers and are boring for listeners. There is a probability that the performer may not be able to remember the rest of the play and this is considered to be a failure;
- There is a relatively low probability for memory mistakes to remain unnoticed by the audience;
- Social demand – listeners do not expect it from the artist and do not want to attend a performance with memory mistakes;
- The fact that memory is mentioned from the interviewed as well as polled concert musicians as one of the most risky aspects of stage performance, i.e. the real influence of stage stress on memory.

The high stressogenic significance of insufficient preparation may be explained with the great degree of possibility for unforeseen events (possible defects) during concert performance – e.g. the fear that an underdeveloped part may sound in stage environment as unclear, with technical mistakes, emotionless, with memory omissions, may fix the attention of the performer on the problem part. Consequently, the part in question may be played correctly but concentration on it will presuppose more technical, memory, interpretation defects in other parts or a general constrained, monotonous sounding. Unconvincing interpretation means that performers have not justified their presence on the stage. In this case worry about achieving necessary artistic „impact” of the performance, correct presentation of performed music, justified responsibility to the author of the work is obviously a serious stressor.

Fear of technical mistakes, certain listeners, noises in the audience more often result in hyperactive response. This may be explained by the fact that after all technical mistakes may be overcome, hidden, return to the normal course of performance is more easily achievable as compared with forgetting the note text. Thus, though it is very probable that such mistakes will be made, which explains their high stressogenic importance, the awareness that technical mistakes are more easily overcome provokes the less unfavourable hyperactive stage stress response. Encounters with certain listeners and noises in the audience may not happen or these factors may remain unregistered by the soloist. This reduces to some extent the feeling of insuperability for these problems and there is a greater probability for it to lead to the milder form of stage distress – hyperactive reaction.

As fear of forgetting is the stage stressor explicitly mentioned as the strongest in the two studies about the structure of stage stress situation – poll and contents analysis, this makes much more convincing the conclusion that it is necessary to work on increase of memory confidence during performance before concert audience. In this respect I would first find what types of measures are taken by performers with different professional experience against memory inaccuracy and to what extent these measures are effective.
Of the 83 performers participating in the poll, school children give 7 ways of coping with forgetting, and performance anxiety has a negative impact on the memory of 47%. The situation is a little bit more optimistic in the group of students – in spite of the used 12 approaches for overcoming stage forgetting, it still affects 20% of polled students. Graduates who have a larger number of means for memorizing the plays to be performed mention 21 various approaches – 41% answer that concert stress has negative impact on memory images of performed works. This once again indicates that despite the great variety of work approaches they all turn out to be insufficiently effective against negative impact of stage stress – not only on subjective fear of forgetting when performing before audience but also on the real result. This, together with the research on characteristics and principles of action of approaches for memorizing, described by the polled performers, as well as literature about memory issues, explicitly suggests the idea that effective limitation of negative stage stress impact requires a new approach.

The new method for preparation of music works for stage presentation should meet the following conditions: to prevent manifestations of memory’s probability nature by means of eliminating lack of clarity in musical score – deep, detailed and correct understanding and familiarization with the specific musical score; to ensure effective and flexible interaction between types of memory involved in memorization, storage and reproduction (performance before audience) of the music piece; to be organized so as to be similar to stage conditions; to demand focused attention; to practice uninterrupted and rhythmic reproduction of information. As most of the approaches already in use are mostly directed to ensuring memorization or check of what is memorized but, as research shows, they are not sufficiently effective, the new method should be more focused on reproduction practice.

**Method of preliminary verbal dictation**

The method consists of combination between vocalization of tone names comprising the score of the music work prepared for stage presentation and performance of the play with slow tempo and by heart. It is applied after the play is already well memorized. The method includes two stages. During the first stage tone names are pronounced simultaneously with playing. This stage uses the physiological basis of bonds built with the most active attention between the vocalized name of the tone, its visually determined place on the keyboard, hand movements necessary for it to be played starting from the tones preceding it and the sound effect from pressing the key. The bonds between the mentioned components are formed after several times of playing (a different number for each performer). During the second main stage the tone names are dictated in one time, one figure or according to the characteristics of the score, during another previously chosen (but kept during the whole score) measuring unit before playing. Dictation starts from the tones involved in the first chord – from the lowest to the highest tone. Immediately after their vocalization the names of the tones from the next chord are pronounced. In order to achieve an optimal effect, the studied polyphonic works should also be dictated in vertical order. Playing the same piece several times is also necessary for successful performance of preliminary vocalization. Repetitions of this way of rehearsal should not be made immediately after the first successful attempt but it is also not useful to delay for too long the separate rehearsals with preliminary verbal dictation.

**Experiment to verify the effectiveness of the method of preliminary verbal dictation**

The experiment for verifying the effectiveness of the method of preliminary verbal dictation involves 128 students from the Academy, where I work, divided in experimental and control classes. Each participant has taken tests to determine his/her psychological-quality parameters: Raven’s intelligence test; Taylor’s anxiety test; Schulte test for attention shift; Eysenck personality test; test for interaction between two signal systems (thinkers – painters). The aim of these tests is: to find which psychological traits of performers are favourable and which involve risk for stage performance quality; to collect evidence that the experiment involves participants with very different initial data as well as with different preliminary piano preparation and that they are distributed with approximately equal numbers between experimental and control groups; to find which personality traits are favourable for successful work according to the new method; to establish the degree of effectiveness of preliminary dictation with instrumentalists with different psychological characteristics and piano experience. Quality of performance before audience for both reference and final results is assessed according to the following indicators: vividness, style and aesthetic correctness of interpretation; number of mistakes – memory inaccuracy and technical defects. The total evaluation of performance is determined according to the six-grade evaluation system used in Bulgaria where poorest performance gets grade 2, highest achievements are given 6 and the minimal difference between grades is 0.25.
The following criteria were subject to observation but not included in grading: type of stage stress response, characteristics of emotions, attention, demeanor and stage self-confidence. While analyzing experimental results is compared the following: level of performance (according to the criteria given above) during the final evaluation experiment as compared with initial success; differences between grades for plays rehearsed with verbal dictation as compared with works learned with standard methods by participants in experimental groups; dynamics of achievements compared between participants in experimental groups and the ones in control groups. Success level with preliminary dictation is determined by the following indicators: correctness and completeness of dictation and performance; slowing down and pauses, number of attempts necessary for achieving smooth performance.

Experimental results decisively showed greater degree of success for students using verbal dictation as compared with the degree of success of the same students before working with the tested method, and also better development in regard to the participants in the control groups. Average result in experimental classes reached 5,64 with difference between the marks of the initial evaluation experiment of 0, 83. Control classes registered average final result of 4,89 and difference between initial achievements of 0, 27. It was observed in control classes that there is much better development of students with psychological qualities relatively favourable for concert performance – good shift of attention (achieved difference between initial and final results of 0,41), lack of anxiety (difference of 0,37), high intelligence (difference of 0,40), extraversion (difference of 0, 29), thinking type (difference of 0, 45). Improved performance in experimental classes of participants with psychological qualities “risky” for successful performance – bad shift of attention (difference between initial and final results of 0,95), high level of anxiety (difference of 0,91), with manifested relatively risky characteristic of „averagely higher” intelligence level (difference of 1,09), mixed type pursuant to the classification proposed by Eysenck (difference of 1, 06), mixed type according to the scale of thinking-feeling (difference of 1, 19) is a stage in proving the hypothesis that preliminary dictation has a favourable influence on the quality of performance before audience.

Comment for the Results of the Experiment and Mechanisms of Impact of Preliminary Dictation for Limitation of the Negative Effect of Main Stage Stressors

As for limitation of the symptoms of fear of forgetting I can say that this method makes it possible, apart from achieving the two goals of the approaches used so far in practice – to memorize and check what is memorized as well as:

- Improvement of reproduction quality by rehearsing its uninterrupted (rhythmic), complete and preliminary nature. The rhythmic and preliminary nature which are not aim of the other methods for building up memory images, are extremely necessary to counteract stage distress. The rhythmic nature ensures uninterrupted “provision” (reminders) for the musical score that will be performed. The preliminary nature provides the next tone contents early enough to prevent a feeling of insecurity, the freezing feeling of “blank spots” in the next musical material. During the stage of preparation for application of verbal dictation we rehearsed exactly completeness and correctness of performance which was to be checked and learned better during the second stage. This means that the effect of the new way of rehearsal aiming at improving these characteristics has been achieved. Being aware of the acquired new and the improved already existing qualities for the reproduction of musical material is of great importance for more adequate mobilization of the adaptation energy of performers during stage presentation. It was found evidence for this in the fact that a significant number of students (34) from experimental groups experience an active reaction after training with verbal dictation as compared with the initial hyperactive reaction of the same participants;

- Checking the effectiveness and completeness of memorization. Using the proposed method as a means for checking memorization level ensures the highest correctness and completeness of memory image. Experimental application of the method showed that an incompletely and incorrectly learned musical piece cannot be played with verbal dictation. Involvement of speech relations organizing and coordinating the other memory types used for memorization and control of performance (just as features of a specific object become subordinated to the generalized idea for the object type) contributes to the effectiveness of memorizing process;

- Improvement of storage effectiveness. Several repetitions of the attempts to vocalize musical score with great focus of attention switching between remembering and vocalization of the next moment using vocalization control, and performance of the present moment using control over performance,
impede the occurrence of an unfavourable phenomenon called reconstruction (during which memorized information becomes distorted with time). This improves the correctness, completeness and permanence of storage of memorized musical works in the memory of instrumentalists, i.e. working with verbal dictation has a favourable influence on the three main memory processes (memorization, storage and reproduction).

Motor memory is the basis of formation of motor habits. Motor information (together with visual and auditory) is subordinated to preliminary vocalization, i.e. with preliminary remembering and dictating knowledge for the coming position and hand movements also comes earlier than performance, thus making it possible for the motor system to prepare in due time. The achieved in this way greater adaptability reduces fears of technical defects – the second most significant stressor in the concert situation. This is the effect of preliminary vocalization we notice in all other memory types involved in memorization of plays. This, together with the circumstance that verbal dictation is impossible with insufficiently detailed and correct memorization of musical scores, as well as the fact that it is an additional and much more reliable measure, impedes negative manifestation of the fear of insufficient preparation – the third most intense stressor in stage situation. As preliminary motor adjustment is an adaptation impulse on a higher level – for willingness to enter into the new character after a change in the emotional tone of the work, as during rehearsal with preliminary vocalization objects of new memorization (which is fact with work according to the offered method) also include already learned expression techniques (till the beginning of this activity the performance concepts are already clear), as impediments for manifestation of the other serious subjective stressors are present in rehearsal with verbal dictation, this creates good preconditions for performers, free of these fears, to realize and use the opportunity to show their artistic qualities in their full capacity. This in its turn limits the impact of the fear of unconvincing interpretation.

Limitation in the effect of the “certain listeners” and “noises in the audience” factors may be illustrated with the following – the students that used verbal dictation improved their performance not only during rehearsals only in the presence of the performer and the teacher (i.e. the listener is only one, known beforehand, and noises are foreseeable to a great extent), but also during the two basic stage stress situations – concert and examination, where each member of the examination committee or concert visitor may turn out to be a “stressor” and noises may be much more various. In spite of this, experiment data definitely show better results for participants in experiment groups as compared to their own achievements in the beginning of the experiment and with the results of the final experiment in control groups. Beside the achieved higher confidence, practice of preliminary vocalization requires great strain of attention during rehearsals, thus ensuring better concentration in stage conditions. This will account for the favourable effect in controlling the commented stressors. In confirmation of the positive influence of work with preliminary dictation on reduction of the stressogenic influence of the “previous failures” factor I will mention the difference in the level of performance of the six students from experimental classes with the lowest initial results – 3.00. At the end of the experiment (which is the next stage performance of these students, i.e. they have not gained other concert experience during the school year), the same students improved their result with 1.83. The ones that are not musical-school graduates (which means – with very limited stage experience) also improved – during the final evaluation experiment which for all participants is the next performance before audience after the initial experiment, they had a final result with 0.93 higher as compared to initial experience. This gives a reason to point out the positive effect of work with preliminary vocalization for limitation of the awkward feeling of inexperience.

Positive change in the types of stage stress response is observed for 39 participants from the experimental classes and 13 participants in control classes. Among them, development from hyperactive to the optimal active reaction is observed for 34 participants in the experimental groups and 12 – of the ones using recognized work methods. All these data give reasons to consider the method of preliminary verbal dictation to be an effective method for limitation of the negative impact of stage stress and gave me enough confidence to publish this article.

References

Бижков, Г. Х. Методология и методи на педагогическите изследвания. С. 1995
Голубовская, Н. О музыкальном исполнительстве. Ленинград, 1985
Китаев-Смык, Л. А. Психология стресса. Москва, 1983
Милшейн, Я. По следите на автобиографичните признания. В: сп. Музикални хоризонти, бр. 3, с. 28, София, 1985
Филева, К. Ограничаване на сценичния дистрес. София, 1997

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