# **Original Paper**

# Methodologically and Psychological Aspects in the Gymnastics

# Training

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# Abstract

The author has created two gymnastic exercises on parallel bars on the basis of objective logical analysis. One of them (bent with side straddleturn and twist on 90 degrees to longitudinal angle swing) is performed by the author and some other gymnastics. The next one—the same with open legs is performed only by the author (1989), which makes the article innovative activity. By this moment no other gymnast has performed the exercise.

The significance of the physical and the technical as well as the psychological preparation for successful learning of new and difficult gymnastic exercises is underlined.

## Keywords

psychic lability, fever before start, difficult exercises, methodology, fear barrier, overwhelming, braveness.

## 1. Introduction

The psychic lability before and during the competition leads to bad results. Conditionally it can be divided into two types – constant—more difficult for overcoming and instant. During the constant in any condition the sportsman is overexcited, makes mistakes and the successful final is simply a chance or it is due to poor results of the other sportsmen. The instant is when in some competitions there are signs of overexcitement and irritation leading to reactions without control and finally to not good classifying.

There is no certainty about that. We all remember how the best runner of all times Usain Bolt on the world competition in track and field events 2013 started earlier than the other sportsman. This is a classic—case of clearly expressed fever before start, sprint before the start signal and as a result—failure and elimination from the competition (according to the rules of the International

Association of Athletic Federations). Our work in this respect is to improve the lability of the nerve processes (Glushkova, Popova, Glushkov, & Gramatikova, 2014), to increase the percentage of exclusion of external (audience) and internal (calmness) factors (when performing competitive exercises (Radoev (Pagoeb, 2010)

In this respect the Bulgarian famous gymnast Boriana Stoyanova—world champion in long jump (Budapest-1983) was good standard and all sportsmen, trainers and referees admired her (every trainer secretly was dreaming to have at least ones in his/her career such a balanced personality in combination with talent ).

The great Bulgarian sportsman Yordan Yovchev has participated in six Olympic Gameswith five finals and two medals (this record is difficult to be improved—to be sixteen years among the eight best gymnasts on the Planet and on such a difficult powerful apparatus—rings). The parallel bars and the vaulting horse is for masters but the rings are for the real men (with great strength potential). There are "psychiatrical" people, not influenced and always ending their combinations without mistakes which leads to prosperity (Yury Keki—Italy is five times world champion on rings.

## 2. Methodology for Training New Gymnastic Exercises

### 2.1 Forming Qualities Necessary for the Performance of Difficult Exercises

Difficult exercises in gymnastics are considered the ones provoking the development of some motive qualities (Aladzhov, 2012); (Marinov, 2003). Such are for instance the exercises requiring the use of static force strength. These are the strength exercises in turned position. Except these dynamic-strength exercises the strength is necessary in the performance of static-strength exercises: scales and crosses.

1.2. Another group of difficult exercises is the one where it is necessary to keep the specific coordination in not natural situation ("Diomidov", "Hailey" and "Yovchev"—names of gymnasts given to exercises performed by them) at end position (FIG Referee Rules, 2020-2024).

1.3. Third group of exercises is connected with appearance of quality flexibility. Duringtheperformancethegymnastdemonstraresgreatamplitudeofmovementsinthejoints. These are different side-splits (Bulgarian Encyclopedic Dictionary, 1999 - 2000), as well as other positions when the breasts touch the knees. Similar tendencies available in bending and unbending of the vertebral column .The technique of performance of many exercises is determined to a great degree by the flexibility of joints. The exercises are difficult because their realization takes time and great work (training). Gymnasticsrequiressystemic training, tenacity and will for successful realization of the specified aim. (Tomov (Tomob) & Tomova (Tomoba), 2004)

#### 3. Forming of Qualities Necessary for the Performance of Risk Exercises

The gymnastic exercises most often are characterized with great degree of uncertainty and danger—in wrong performances. The wrongperformanc eleadstocounteraction (strike) with the apparatuses or to falling down. The gymnast is in stress situation which is the reason for the next

performances to shorten or prolong some of the phases of the exercise. This is particularly strong ingoing through new exercises. During the process of learning new exercises the gymnast must overcome the fear (restricting) barrier. To allow bruise on this stage is not desirable, because it leaves long lasting memories in the psychic of the sportsman and becomes reason for giving up further learning.

In the trainer's experience for overcoming the fear barrier are used the following techniques: help and keeping by the trainer; covering the place of landing-mattress, foam, rubber, safety belts. Help is used most of all because is most accessible although not most effective. The gymnast sometimes has the feeling that the support of the trainer will not be enough. Consequently there must be full trust between both of them. Keep in gisused in more advanced stage off he learning and by itself it is a psychologic a element rather than a physical contact. Surrounding the apparatus with soft foam covers especially for landing is suitable way to avoid injuries. The application requires preliminary execution in ditch with sponges (Stoynev, 1991a). The safety belts are used only at the beginning stage of the learning with full security, i.e., when the gymnast is fully ensured. The force of the earth attraction is reduced by the safety belts. The sportsman concentrates on the right performance of the movement and its separate phase. The utility apparatuses play similar role. With them the gymnast performs the exercises engaging less muscles. Good and quick studies of the structure of the exercise. The trainer has great role, watching by the side and showing what is good, where to press and where to release.

#### 4. Way of Acting in Learning of Difficult Risk Exercises

The learning of difficult and risk exercises always creates many problems to the trainers and to the sportsmen. The two practiced exercises—bent with side straddle turn and twist on 90 degrees to longitudinal angle swing and the same with open legs are examples for such difficult and risk exercises. Themethodologyshouldbe divided in the following stages:

3.1 Defining the biomechanical conditions necessary for the performance of the concrete exercise (Богданов (Bogdanov, 2005).

3.2 Defining the space-temporary characteristics and acquiring knowledge for the process of performing (Naumovski, 2014) and on this basis—defining the degree of risk and the most dangerous moments on which the security of the performer depends on (Хаджиев (Hadzhiev, 1991).

3.3 Defining the level of physical qualities and the necessary motive potential for performance of the exercises (Платонов (Platonov, 2005).

3.4 Preparation of the performer: physical—to the necessary minimum of development of the physical qualities; (Doncheva, Pacheva & Gramatikova, 2014) technical—to acquirement of a number of exercises very close to the experimented (Jezierski&Ribycka, 2005); mental vercoming the fear from the new (Ророv (Попов, 1988); (Димитрова (Dimitrova, 1998)

3.5 Beginning of test performances following the developed methodology.

Passing by some stages leads to not right learning and wrong acquirement of the technique of execution

(Бернщайн (Bernstein, 1941г.). The gymnast could not learn these exercises, to control the performance, especially if compensatory movements are necessary – and here they exist.

### 4. Methods for Overcoming the Fear Barrier in Difficult and Risk Exercises

Exercises with additional whirling beginning position relief around some of the axis are used for overcoming the fear barrier (Radoev, 2014)—on trampoline, mini trampoline, plunge board, as well as with convenient position—landing over thick foam mattress or in ditch with sponges. In this sense we suggest the following preparatory exercises developing braveness.

#### 5. Exercises Developing Braveness Performed on Foam Mattresses

1. After jumps on trampoline in ditch with sponges:

- 1.1. High flight coiled in ditch performed on foam mattresses;
- 1.2. 3/2 coil in ditch with sponges performed on foam mattresses;

1.3. 3/2 coilwith 1/1 turning to coil in ditch performed on foam mattresses;

2. After good acquiring these exercises on trampoline are performed in difficult conditions – on mini trampoline and on plunge board performed on foam mattresses;

3. The same exercises performed on plunge board in ditch with sponges performed on foam mattresses;

5.1 Psychological Preparation

Except the listed exercises aiming at development of braveness, the trainer during and after the performance uses the following psychological instruments:

Suggestion-by suitable phrases the gymnast is suggested that the exercise is in the sphere of his abilities;

Conviction-by suitable intonation the gymnast is persuaded that the present exercise is not more difficult from the already acquired.

"The strength of the system of conviction is also exclusively important" (Goldstein, 1962), especially in the initial stage of exploration.

Actually the relation trainer—sportsman can be revealed reciprocally like therapeutist—patient where the trust is sine qua non (compulsory condition) for the short term dynamic approaches. The entity "trainer's load" appears in all cases (Рачев & Маргаритов (Rachev & Margaritov, 1996).

Inspiring hopes is general practice in combination with cognitive thinking in long term trust. It can be realized only if the sportsman is sure that the training actions have effect, i.e., learns quickly and acquiring knowledge (Господинов (Gospodinov, 2011) at good technical level the new exercise (Stoynew, 1991).

In this connection it is normal to make the level of difficulty of the studied exercises not high. Comparison can be made with some similar but easier performance, for accelerated acquiring of the study process (Лекина (Lekina, 2014), this is the general practice. This is the usual experience in the process of studying and training aiming at high results. The knowledge for the ways of overcoming the fear barrier in the different stages during training and at the different stages of learning is condition for building right habits necessary for the performance of risk exercises.

### 6. Conclusion

Bulgaria already has its innovators in sports gymnastics. They are sport exercise Delchev-1 and sport exercise Delchev-2 on horizontal bar, and Yovchev on rings.

No matter how high is the physical potential of the sportsman if he/she is not advisory and constantly methodological and psychologically prepared since the beginning of the sports career, his/her work will be "causa perduta".

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PS The author is a participant in the construction of the routines of the multiple world champion in sports gymnastics - Yordan Yovchev - the only gymnast in the world, a participant in six Olympic Games:

Barcelona-1992;

Atlanta-1996;

Sydney-2000;

Athens-2004 (where the judges "took away" the gold medal from him in rings, preferring representatives of the hosts Dimosthenios Tambakos, but at the next world championship things fell into place);

Beijing-2008 and

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I wish your magazine success and prosperity.

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Book cover-face-Jordan Yovchev Book cover-back The author of the

In the performance of rings

book and presented article-Sergey Radoev



The author of the article Dr. Sergey Radoev together with the world champion Jordan Yovchev