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Research Article

# INFLUENCE OF CHESS GAME ON THE DEVELOPMENT OF CREATIVE POTENTIAL OF PERSONALITY

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## ABSTRACT

Issues related to the creative components of a person's thinking while playing chess are considered. The author studies the influence of chess on the development of logical and creative thinking. The article concludes that the game of chess is a creative game that makes a significant contribution to the development of the creative potential of the individual and society.

## KEYWORDS

Personality, thinking, creativity, chess, learning.

## INTRODUCTION

Chess, being a creative game, is increasingly attracting teachers as an effective didactic tool for developing students' creative abilities. In addition, chess is considered "…. as a convenient model for studying human creative thinking. In learning the secrets of chess, they see the path to understanding the mysteries of human creative activity" [5, p. 3]. Knowing the psychological and pedagogical mechanisms of the formation and development of creative thinking, it is easier for a teacher to organize an educational process aimed at developing the student's creative potential.

In the psychological and pedagogical literature there are many definitions of the concept of "creativity". In our opinion, our research corresponds to the following definition: "creativity is the ability of a self-organizing system to solve such problems, the results and methods of solving which were not available in its past experience, but were developed through new,

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previously unperformed interactions with objects of the external world or past experience" [9 , With. 111].

In the game of chess, human creative activity is represented by a wide range of different ideas, tactical and strategic plans, the culmination of which can be either simple and precise moves leading to success or beautiful and spectacular combinations. Compared to other types of human creative activity, the game of chess has a higher intensity of situations of this nature in which the player has to solve creative problems almost every move. It is worth noting that the division of tasks into creative and non-creative (reproductive) is relative, since any real tasks contain creative elements (when solving them, a lack of information is always revealed).

Numerous studies have repeatedly confirmed that the game of chess, in addition to its significant influence on a person's intelligence, also contributes to the development of a person's creative abilities: "Research by psychologists and teachers has shown that the main elements characterizing human creative activity are: the ability to independently transfer knowledge and skills to a new situation; identification of new problems in familiar standard conditions; vision of new functions of a familiar object, its structure; the ability to find an original solution to known methods of play, etc. All these qualities are formed in the process of chess creativity and, as research shows, are very clearly expressed among highly qualified chess players"[11, p. 60]. Let's consider what lies at the heart of chess creativity.

Grandmaster D.I. Bronstein, commenting on one of the games in his work, named four components of a chess player's creative thinking: "The prerequisites for chess creativity are usually considered to be logic, accurate calculation of options and technique, including in the latter concept knowledge of theory. However, there is a fourth component, perhaps the most attractive, although it is often forgotten. I mean intuition, or, if you like, chess fantasy" [2, p. 126]. Unlike D.I. Bronstein, we believe that chess intuition and chess fantasy are not the same thing. Fantasy or imagination is the fifth component of chess creativity. Let us take a closer look at the composition of the creative components of thinking in a chess game.

Logics. Among researchers of the chess game, as well as among chess players themselves, the generally accepted opinion is that the game of chess has logical nature and obeys logical laws, and the result of a chess game is largely determined by the creative logical design of the players. It is worth noting that the fifth world chess champion and scientist M. Euwe even published a chess manual called "A Logical Approach to the Chess Game" [12].

The content of chess as a sports game is active mental activity, including the ability to operate with mental images and patterns. Abstract-logical thinking, which takes place in a chess game, involves the use of selected properties of an object and certain sequences based on cause-and-effect relationships. Chess creativity is impossible without the use of logical concepts, judgments, inferences, analysis and synthesis. Based on logical analysis, the player chooses a new, more rational path to achieve his goals, thereby carrying out a creative search for new gaming opportunities.

Being a logical game, chess, according to a number of researchers and chess players, contributes to the development of logical thinking. So according to

I. A. Sabelnikova, the chess game is a means of developing logical thinking and memory development in students [10, p. 10]. In the monograph by N.V. Krogius "Psychology of Chess Creativity", the author, noting the positive influence of chess on the

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development of a person's analytical abilities, cites the opinion of Academician G. Klaus: "... precise logical thinking is easier to train through a chess game (I mean serious games), rather than using a logic textbook for this purpose. It is known that a person learns much more willingly and productively during the game than with any other method of learning" [6, p. 32]. Of course, G. Klaus exaggerates the importance of the chess game, but his thoughts about the role of chess in the development of logical thinking are fair. Chess players often use the methods of logical analysis used in the game in other areas of life. Emotional activation and accompanying interest in a chess game speeds up and makes it more interesting and useful for the player to master the principles and rules of logical thinking.

Accurate calculation of options. When playing chess, players are faced with the need to constantly make accurate calculations of options. Problematic problems that arise on the board require independent creative solutions. The accuracy of the calculated options is usually checked after just a couple of moves. This shows us that unsupported imitation of known models is futile in the game of chess. Chess teaches independent calculation of options and correct problem solving. As a rule, the one who plays better chess is the one who assesses the position more accurately and considers the options further and more accurately.

Since in a chess game, in the end, a more accurate calculation of options and a well-thought-out strategy for conducting the fight triumphs, we can say that thanks to the chess game, the philosophical component of the problem of truth becomes more acute. The criterion of this truth in a chess game can be both the actual victory over the opponent and the aesthetic "aftertaste."

Technique and knowledge of chess theory. The creative process is always based on some already formed basis, and is not carried out out of emptiness. Insufficient knowledge of typical opening, middlegame and endgame positions, as well as typical playing patterns, leads to a rapid deterioration of the position, which subsequently has a decisive impact on the outcome of the game. Studying theoretical positions allows players to identify typical positions in a chess game. These can be theoretical positions in the opening, middlegame and endgame. A chess player, guided by such typical positions and possessing a certain chess technique, is able to highlight the most significant characteristics and features of a particular situation and implement the ideas that came to him based on his knowledge of chess theory directly at the board.

Theoretical knowledge and the accompanying gaming technique allow the chess player to freely navigate any position that appears on the board. Based on this theoretical knowledge, the player chooses the correct logical plan for the game as a whole, and as a result, realizes his creative potential while playing chess, demonstrating high results in practical games.

Intuition. Despite the fact that chess is a logical game in which all options can be calculated, many of the positions that appear on the board in a chess game are difficult and sometimes impossible to analyze. For example, the answer to the question has not yet been found: does White win in initial position with error-free play or should the game end in a draw?

Sometimes in complex multi-piece positions there is an excess of information, which needs to be processed and the only correct move to be made in the conditions

Even a highly skilled player is not capable of time pressure. The highest level chess players do not go through all the options, but limit their choices to a small

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number of possible candidate moves. As a rule, having made a decision, a player cannot logically justify that his move is the only correct one. This fact says that during a game, a chess player, in addition to logic, is also guided by heuristic decision-making techniques.

One such heuristic decision-making technique is intuition. In philosophy, in the broadest sense, intuition is understood as

"the ability of direct, unmediated comprehension of truth" [8]. In philosophy, there are two main types of intuition: sensory and intellectual. By sensory intuition we mean the comprehension of truth only from a direct external sense, for example, hearing or sight. Intellectual intuition is considered as the comprehension by the intellect of a truth that does not derive from other truths by evidence

and is not derived from direct external feelings. In addition, there are many philosophical interpretations of intuition, characterized by semantic and content diversity.

A large number of articles and works have been written about intuition as an element of chess creativity. The peculiarity of theoretical reflections on chess intuition is that they were written by chess players and it is hardly possible to call them philosophical or scientific. However, most chess masters note the enormous practical importance of intuition in the game of chess. Thus, the famous chess researcher N.V. Krogius, whom we have already mentioned, noted that intuition and intuitive orientation are of great practical importance in the game of chess: "It, as it were, signals the chess player about those main features of the situation, those immediate threats, without taking into account which it is impossible to take on more in-depth analysis of the position" [6, p. 131].

World champion G.K. Kasparov devoted a chapter to intuition in his work "Chess as a Model of Life." In his reflections, the world champion emphasizes the importance of a chess player's intuition: "Intuition tells us not only what and how, but also when. As it develops, it becomes a tool for saving effort and time, reducing the period of assessment and transition to action. We can forever collect and analyze information, but never make a single decision. Something must tell us that the moment for decisive action has arrived. If I can think about a move for ten seconds, ten minutes, what will I choose? Well-developed intuition helps us maintain a pragmatic course and lets us know when an important moment comes that requires more time and attention" [4, p. 88-89].

E. A. Nikolaev writes in detail about intuition in the culture of chess creativity. He was the first among researchers of chess intuition to subject her philosophical analysis. He managed to generalize the experience of previous chess players and researchers of intuition in chess creativity. Taking J. Locke's theory of intuition as a basis, E. A. Nikolaev came to the following conclusion: "... the basis of intuition is our unconscious experience, knowledge processed at a subconscious level. In other words, intuition is unconscious knowledge, which in great chess players is processed by consciousness much faster than in average chess players. It is this unconscious knowledge that underlies the very first impulse of intuitive knowledge in chess creativity" [7, p. 124].

Analyzing the works of philosophers and chess players devoted to intuition, E. A. Nikolaev came to the conclusion that intuition in chess creativity is the result of previous long-term mediation. All the knowledge that we directly possess is the result of countless mediations. In this case, mediation is understood as "not only the conditioning of thought by thought, but also a series of practical actions, events, inventions, etc., necessary for a certain perception or

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comprehension to be presented to consciousness as immediate" [1].

From the above, E. A. Nikolaev draws the logical conclusion that in order to comprehend the immediate as such, development and education are required intelligence: "It is this fact that is observed in chess creativity, the process of cognition within the framework of which begins with sensory contemplation. Then, at the same time, sensory and intellectual intuitions are activated, based on mediated knowledge obtained as a result of previous education and development of the intellect. And only as a last resort does rational cognition, based on a non-classical type of rationality, begin to function. These are the characteristics of intuitive knowledge in chess creativity" [7, p. 125].

Being a kind of creative insight, intuition helps the player, without consciously using any logical operations or calculating complex combinations, to translate his creative idea into reality. It is the opportunity to realize their intuitive ideas on the board that attracts many chess players. The intuitive component in a chess game is especially attractive for people of art.

Fantasy. If many works have been written about intuition as one of the main components of chess creativity, it is difficult to find any about chess imagination. Moreover, it is necessary to note that in the history of philosophy the concept of "fantasy" is used extremely rarely, and in most modern philosophical dictionaries not a word is said about fantasy. Most often, this concept is replaced by the categories "idea" and "imagination".

Chess fantasy expands the player's understanding of his capabilities in the process of gaming activity and becomes an essential element of chess. Fantasy in a chess game can help to come to the "truth", "illuminating" the entire board, which can contribute to the choice of the only correct move in a position. By visualizing chess images, fantasy helps the player see something important in a position, something new that seemed hidden to him before.

In the early stages of its development, humanity, thanks to its creative understanding of the world and the use of imagination, made a lot of assumptions that were sometimes prophetic. Just as fantasy once helped Leucippus and Democritus create the atomic theory, fantasy in chess pushes the player to original and creative solutions, seemingly in the simplest positions. It is thanks to imagination that a player can generate an interesting strategic plan, or tactical idea. Fantasy helps not to calculate or evaluate some beautiful combination, but to develop a specific idea or plan for further play.

In the book "The Beautiful and Furious World," grandmaster D. I. Bronstein and candidate of philosophical sciences G. L. Smolyan believed that "the highly cultural and creative significance (chess - approx. M. G.) as a "sublime activity" should be reflected in sociological research" [3, p. 24]. Comparing the game of chess with music, the authors believed that it was difficult to talk about the components of chess creativity: "Chess is a highly individual area of creativity. Therefore, it is as difficult to talk about its essence, its components, harmony or technique as it is for a composer to talk about his work" [3, p. 34]. However, the authors still give their point of view on chess creativity: "Chess wonderfully combines all three components inherent in any creative activity: idea, implementation and interaction. The idea, as a product of the activity of the intellect, is realized, embodied in a specific tangible form of movement of the pieces, recorded in the text of the game, on the demonstration board and finds its addressee, the

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public, spectators and readers, chess lovers all over the world, the public.

communicating, interacting with the creator of the idea"[3, p. 34].

The authors also identify four factors that determine the creative nature of chess and the feeling of joy from it. The first of them is that the chess player himself creates artistic values; second, the creative process takes place in front of others, to whom it also brings joy and pleasure; the third is the inner charm of chess, which has its own, sometimes difficult to explain, criteria of beauty; fourth - the felt pleasure of working in a kind of "fantastic sphere" of thought and imagination in its close intertwining with the realities of life and activity of a chess player [3, p. 35-40].

The analysis of the creative components of a person's thinking while playing chess allowed us to identify the creative potential rooted in chess. The chess game contains all the components of creative activity in which an individual can manifest and realize his need for creativity. This made it possible to confirm the hypothesis that the game of chess is a creative game that makes a significant contribution to the development of the intellectual and creative potential of the individual and society.

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