

The 10.000-Hour Rule Myth in Sports

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Received: July 24, 2022 Accepted: September 13, 2022 Published: October 15, 2022

doi:10.5296/jei.v8i3.20111 URL: <https://doi.org/10.5296/jei.v8i3.20111>

Abstract

There are many important controversial issues related to psycho-social areas in sports which involve daily life. One of the controversial topics is the 10.000-hour rule. Indeed, in the book of Malcolm Gladwell entitled “Outliers: The story of success”, the question of “Is the 10.000-hour rule a general rule for success?” is present as a discussion question.

It is a problem for scientists to set off from rules rather than theories in the scientific discussions and research related to sportive issues. This situation manifests itself in the subjective measurement of events, phenomena, and objects that should be measured objectively in the first place. In this respect, it is important to identify and describe the issues that harm the scientific perspective of sports.

In this regard, the fact that the 10.000-hour rule for success put forward by Malcolm Gladwell is advocated by some sportspeople increases the significance of this study. Therefore, the aim of this study was to make a scientific analysis of the 10.000-hour rule and examine the perspectives of sportspeople. In addition to this, whether the 10.000-hour rule, which has been accepted by limited circles in sports culture, is a myth or not was discussed epistemologically. Document analysis was performed in this descriptive study.

As a result, it was determined that the 10.000-hour rule was expressed by limited circles in sports culture and that it had no scientific value. It is recommended to act in accordance with theories and models rather than rules while evaluating sportive events, phenomena, and objects.

Keywords: Sports, The 10.000-hour rule, Myth

1. The 10.000-Hour Rule

Success in sports is defined not only by physical and motor skills, but also by many psychological characteristics. It is known that changes in psychological characteristics affect performance positively or negatively. The psychological characteristics of the athletes have a great influence on the performance. The effect of psychological characteristics of athletes on performance depends on many factors (Gümüşdağ & İlhan, 2022).

As the word meaning, rule is defined as “the principle and order that is the basis and direction of an art, science, and system of thought and behavior” (Dictionary, 2022). Therefore, what is the 10.000-hour rule? There is a book on psychology and sociology written by a journalist named Malcolm Gladwell (1963-...) entitled “Outliers. In this book, Gladwell puts forward the 10.000-hour rule as the main factor influencing success. According to this rule, it is necessary to struggle for at least 10.000 hours in order to specialize in a subject (Gladwell, 2008). In the book, Gladwell includes the business people Bill Gates and Bill Joy, musician Beatles band, and hockey players in sports as examples of the 10.000-hour rule.

According to Swedish psychology professor K. Anders Ericsson (1947-2020), who is one of the people who came up with the idea of 10.000 hours of practice, success requires at least 10 years of intensive preparation (Ericsson et al., 1993). According to such researchers as Ericsson and Gladwell, it takes 10.000 hours or 10 years to become an elite, in other words, an expert in a profession. This has been defined as the 10.000-hour rule or the 10-year rule. Based on this definition, some researchers argue that an athlete has to practice for 10.000 hours or 10 years and participate in competitions in order to reach ideal performance.

“Is the 10.000-hour rule a general rule for success?” (Gladwell, 2008). Different numbers are put forward in this regard. For instance, according to the American philosophy professor Lou Marinoff, it takes 15 years of hard work to specialize in arts and sports. It is required to work the techniques for five years to learn the hits, work the tactics for five years to learn how to use the hits within the game, and integrate the techniques and tactics for five years to learn how to win (Marinoff, 2009).

According to a study conducted on the factors that bring success, it was revealed that the most important factors were family, education, determination, the self, the teacher and the master, mother, spouse, father, continuous work, friends, luck, and relatives (Ozkan & Gündüz, 2008). In another study, it was determined that the expectation of success was not enough to ensure success, but it was closely related to the preparation, past achievements, and perception of talent. In other words, the expectation of success is not related to the result, but to the effort and the way of practice (Vollmer, 1986). Besides, according to a study conducted with athletes, it was suggested by the athletes that the factors such as training, nutrition, trainer, talent, skill, management, and determination were among the factors that could positively affect sportive success and performance (Sunay & Saracaloğlu, 2003).

2. Myth

The concept of myth, a noun derived from the root “haref”, which means “dementia” according to the dictionary, is used to describe a made-up story, a deceptive word that contradicts the mind and truth (Varli, 2014). In this sense, myth also includes the understanding of conveying and adopting the statements and rules that are contradictory to mind, science, and reality. In other words, this word is used for many attitudes in daily life.

Myths are various beliefs that have a place in culture and the activity of thinking (Oksar, 2021). Psychological reasons such as fear, anxiety, despair, and association are effective on the basis of myth, which is also called superstition or misbelief (Ornek, 1971) because fear, hope, love, the need to shelter, despair, association, trust, admiration, social interaction, devotion to ancestors, desire, necessity, advertising, and excessive prompting play an important role in the acceptance and continuity of myths (Bedir, 1998). Myths undertake the task of meeting psycho-social needs (Ayten & Kose, 2009). From this point of view, some thoughts, attitudes, and behaviors that do not have any basis within the context of science and philosophy are accepted as objective truths by being put on a scientific image.

Every human being has the potential to exhibit irrational attitudes because while evaluating the event, object, or person, false reasoning acts can be performed due to prejudice and lack of knowledge. This helps to form myths and believe in them (Vyse, 1997). People tend to rationalize myths and choose phenomena to put them on a rational basis. Therefore, myths live as collective dreams within societies (Arslan, 2004). For this reason, there is a tendency in human nature to believe in myths.

There have always been and will always be beliefs and practices that individuals and societies believe they always express the truth for themselves, and that they derive benefit from them. However, the important point here is the ignorance of these beliefs and practices, which are an inspiration for the shaping of science for today’s modern human, by labeling them with such expressions as “misbelief” and “superstition”, and without making any criticism on them may also cause the scientific developments to be disrupted (Kandemir, 2016) because there is a necessary causal correlation between two events in superstitions (Ciborovvski, 1997). This necessity can sometimes lead individuals to irrational attitudes. This direction might also distract people from reality.

3. Sports and the 10.000-Hour Rule Myth

Various views of Turkish sportspeople draw attention to the rule that it is required to practice for at least 10.000 hours in order to specialize. For example, the president of Altınordu Sports Club Seyit Mehmet Ozkan said “There is a man named Malcolm Gladwell. He is from the USA. He is the author of a very famous book titled “Outliers—those who are outside the line”. He is the person who introduced the 10.000-hour rule to the world. What is this 10.000-hour rule? In order to become the “Master” of a task, it is necessary to spend 10.000 hours of LABOR. $10.000 \text{ Hours} = 4 \text{ Hours a Day} \times 250 \text{ Days a Year} \times 10 \text{ Years}$. In other words, if you practice for Four Hours a Day, you will become the “Master” of that job or task in 10 years. The guys studied the most successful people from all professions all around the

It is noteworthy that this 10,000-hour rule is also encountered in our scientific circles. For instance, in a master's thesis entitled "The Examination of the Relationship between Imagery, Inner Speech, and Coping with Stress Styles of Adult Athletes and Mental Resilience", Gladwell's (2008) 10,000-hour rule was based upon in the classification of the athletes' sports experience as 1-10 years and 11 years and above. It was emphasized in the study that "as a result of his research, Gladwell (2008) stated that it was necessary to practice for at least 10,000 hours in order to become an expert." (Akman, 2019).

There are also those who show interest in this rule in our popular culture. For example, in an article published in the newspaper *Hurriyet*, it was stated that "When Gladwell researched successful people, he found that the 10,000-hour rule was compatible with all of them. All the successful people worked and practiced for at least 10,000 hours in order to be able to get to where they were then. For instance, before Bill Gates founded Microsoft, he spent 10,000 hours programming at a high school nearby their home." (Bolat, 2009).

So, is this 10,000-hour rule acceptable in sports? For example, an 8-year-old child can only reach 10,000 hours in 10 years if he or she works for 20 hours a week. However, this situation cannot be acceptable in the pedagogical sense because working for 20 hours a week would be too monotonous for young people. This monotony can lead to burnout and loss of motivation. It may also be hazardous in the biological sense because it can lead to repetitive injuries that are caused by strain. Furthermore, this rule ignores the importance of genetic profile and talent. It gives too much importance to motivation since it ignores talent. Therefore, working really hard at an early age is a form of early specialization that does not seem beneficial (Wormhoudt et al., 2017). For this reason, this 10,000-hour rule by Gladwell cannot be accepted as a rule in sports.

This rule has also been criticized scientifically since it lacks concrete supporting evidence. For example, according to the Athletic Skill Model (ASM), excessive specialization should not be the aim while performing training at a very young age. Besides, it is also controversial to focus on an average hour because the estimated time spent during training is based on individual differences. The content of the training is more important than the time spent during the training. In other words, according to ASM, what you do is important in training, not how many hours you spend (Wormhoudt et al., 2017). In this regard, since it seems impossible to verify the rule of "10,000 hours of practice must be performed for success in sports" for all athletes, it should be considered a metaphysical proposition that lacks the verifiability characteristics of science.

The 10,000-hour rule is not also valid in terms of the philosophy of science because a judgment that "If A fits, so does B" is a psychological connotation, and it makes the individual believe that it will just be like that (Ulken, 1983). However, such an obligation cannot be brought forward in human-related events and phenomena. In other words, saying that "if you practice for 10,000 hours, you will become an expert" means trying to adapt the positivist inductive reasoning method to the human sciences.

For a generalization to be accepted by inductive reasoning, the following conditions are necessary:

- (1) The number of observation propositions should be as much as possible.
- (2) The observations should be repeated under different conditions (Chalmers, 2013).

How do we get the right to deduce from the regularity observed in a small quantity and certain cases that this regularity will manifest itself in the unobserved cases and just in the same way in the future? Because it is always possible for new experiments to refute a proposition obtained by the induction method, or to exhibit that this proposition is not completely valid (Aster, 1994). Also, the whole without the parts, or the parts without the whole, have no meaning. For this reason, in practice, this problem can only be overcome by alternatively moving from the parts to the whole and from the whole to the parts again (Jahoda, 2007). In this regard, a large number of athletes should be observed under different conditions, and all of the observed athletes should have practiced for 10.000 hours unexceptionally. Then we can argue that the characteristics of practicing for 10.000 hours should be present in all successful athletes. Therefore, just a few examples presented in the book of Malcolm Gladwell are not enough.

The correlation between the idea of a universal obligation and two or more phenomena is called scientific law (Ulken, 1983). For example, Newton's Law of Gravity is a scientific law and explains universal gravitation as "every object falls when it is in the air". However, there are no universal obligations in the sciences of psychology and sociology, which examine human, just as in the science of physics because human sciences are not appropriate for long-term experiments for phenomena like success that are affected by many variables.

Science depends on the requirement of always achieving the same results under similar conditions and by a certain method. Personal achievements that do not meet this requirement and that are not clearly expressed in which way the obtained results will be obtained might be surprising and dazzling for people, but they cannot be scientific (Yildirim, 1985) because personal experience is an individual reality, and we cannot go beyond this (Jahoda, 2007). For example, it was just enough for Wolfgang Amadeus Mozart (1756-1791) to practice short pieces with the harpsichord for only half an hour at the age of four to play them perfectly (Buke, 2006). Therefore, the names such as Bill Gates and Bill Joy, who are shown as examples of the 10.000-hour rule, mean nothing but personal achievements. Besides, it is not known who observed that the people mentioned practiced for 10.000 hours to become an expert and to be successful, and how they were followed. In other words, there is no such situation.

Saying that "if these events happen, these conclusions will definitely come out of it" does not reveal anything of the truth. In addition, we do not have the right to force the mind to comply with the result and to say that the first situation is the basis for the second situation (Ulken, 1983). Such a compulsion reveals the error of reasoning called reductionism. The one-way interpretation effort that emerges in reductionism is insufficient because understanding human is so complex and variable that it can be only the product of a more in-depth and comprehensive study rather than a one-way point of view (Arikan, 2006). However, Gladwell is someone who ignored the various factors necessary for success and tried to simplify it. Therefore, if the 10.000-hour rule is accepted as a condition to practice a profession as an

expert, such numbers will remain only as estimates unless different variables are eliminated.

Undoubtedly, during the development of an athlete, the number of trainings increases as the years pass. However, it is unreasonable to put forward a specific training time given just like a prescription, and it does not fit the essence of the sports (Wormhoudt et al., 2017). Besides, researches and evaluations should be based upon the views of theorists and their works on the theories in order for them to gain a scientific quality (Ozen, 2020). French sociologist and philosopher Auguste Comte (1798-1857) pointed out that it was insufficient for the researcher to make observations without a theory to guide him or her (Jahoda, 2007). In other words, scientific research, which are also called academic research, should be based on theories (Berger, 2018). In this regard, such scientific studies as theses, dissertations, articles, and books should be based on theories, laws, or models, not on personal assumptions and rules.

Therefore, theories such as path-goal theory can be used for the subject of success. Path-goal theory is a theory that investigates how a leader will affect his or her subordinates' power of achieving tasks with their personal powers, and what kind of a path to follow between these two goals. This theory adds the fact that the leader motivates his or her subordinates to achieve the desired goal as the third dimension (Eren, 2000). Attribution theory, which is one of the important theories for the subject of success and which has emerged from the cognitive theories, shows that success and failure depend on internal variables that can be controlled. This theory explains the reason for one's success or failure in three dimensions as; being within or outside the self, being fixed or flexible, and whether responsibility can be controlled or not (Umay, 2002).

Above all, the scientist is truth-oriented and avoids indiscreet generalizations that are not based on facts (Yildirim, 1985). Therefore, the reasons for individual differences as well as the de facto based on events and phenomena are the research areas of science. In this regard, there are also scientific objections to the 10.000-hour rule in western societies. For example, a study conducted concluded that planned effort was important, but not as important as being discussed because general intelligence and special talents are as valuable as thousands of hours of planned practice (Macnamara et al., 2014). In other words, from chess and music to baseball and tennis, the view of talent, which is based on both innate hardware and learned software, is quite explicitly supported in the sports and science circles when compared to the number 10.000 (Epstein, 2014).

In addition, the scope of any scientific law application should be more or less limited. The expression or application of unlimited laws may always be misleading and lead people to wrong conclusions (Yildirim, 1985). In this regard, it is just a vain belief to try to generalize the 10.000-hour practice for every person and environment without putting any limits and determining the application area.

4. Discussion

The identification of two irrational situations that have no connection between each other within a cause-and-effect relationship is one of the main reasons for the emergence of beliefs just like myths (Oksar, 2021). In this context, the 10.000-hour rule seems to have become a

popular belief in terms of success (Nuwer, 2014) because the myths in the sports culture arise due to the effort to establish an illogical correlation in terms of a cause-and-effect relationship. For this reason, scientific research should be carried out on the basis of theories or models, not rules. Research should not be conducted by mentioning “he said this, she said that”, but by asking “what did the document state?”.

It is not enough for scientists to say that practice is important. They should go beyond saying that practice is important and take on the difficult task of being deterministic (Epstein, 2014). Therefore, sportspeople should have an understanding of thinking and doing research healthily because myths that have found a place for themselves more or less in every sportive formation and gained scientific validity should be determined. For this reason, before adapting everything they read, hear, and see to sports, sportspeople should pass them through the mind and criticism filter of philosophy and science because looking at sports from a superficial perspective means approaching what popular culture offers with prejudice and preconception. For this reason, all kinds of rules, beliefs, and attitudes that do not have any scientific and philosophical basis should not be accepted, and such a myth as the requirement to practice for at least 10.000 hours in order to specialize in a field should not be trusted.

5. Conclusion

Therefore, the rule stating that sportspeople have to practice for 10.000 hours in order to specialize is a formal proposition that has no correlation with reality. One of the writers working as a journalist who had a history education wanted to make a rule in his own way regarding the reality of practice and dedication necessary for success so that it would be remarkable. However, human sciences are not dependent on form and formula just like the formal and natural sciences. For this reason, it may be necessary for some to practice for ten thousand hours, for some to practice for seven thousand hours, some to practice for five thousand hours, or for some others to practice for fifteen thousand hours in order to become successful. The reality is that success depends not only on the hours of practice but also on many factors such as the person himself and the characteristics of the environment he or she is in. That is to say, practicing for 10.000 hours can be helpful to be successful, but it is not realistic for the average sportsperson.

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