How Does Music Influence Athletes’ Motivation?

(Course name: Motivation, Where Does It Come from?)

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This paper reviews previous research to show the positive relationship between music and motivation in sports. After defining what motivation means in this paper, the authors review studies investigating the influence of listening to music on motivation to play a sport. The results showed that, by watching music video clips, the participating athletes were able to build strong, successful self-images, which contributed to enhancing their motivation and performance. Based on another set of previous studies, the authors argue that listening to music can promote the secretion of dopamine, which improves motivation and, thus, performance. The authors suggest that students as well as athletes listen to music before an important occasion, such as an exam, to help them become more motivated and perform better.

Key words: motivation, music, athletes, dopamine

Introduction

Many athletes listen to music immediately before participating in a match. Such a habit supposedly keeps them motivated. But what is motivation? In what way do athletes’ minds change by listening to music? In this report, we will define and describe motivation and show how music can influence motivation.

Previous studies on motivation and music

This section discusses the existing research related to motivation and music. It first defines motivation and then reviews the studies conducted to uncover the connection between motivation and music.

1. What is motivation?

The word motivation has two meanings, according to the Longman Dictionary of Contemporary English[1]. Motivation can be defined as the reason one wants to do something. It can also be defined as an eagerness and willingness to do something without needing to be told or forced to do it. A Japanese dictionary uses the former meaning as the primary meaning of "mochibesyon," but when using "mochibesyon” in katakana, it often refers to the latter. Thus, this paper will use the second meaning of motivation.

A study conducted by Knutson, Fong, Bennett, Adams, and Hommer[2] showed a strong correlation between motivation and a specific part of the brain. Knutson,* et al. asked their participants to push a button once every three seconds. Half of the
participants were rewarded for their precise work (motivated group) while the other half were offered nothing (control group). The participants’ stimulus-preceding negativity (SPN) brain waves were observed using a 3D topography map. By analyzing the map, Knutson, et al demonstrated that, in the motivated group, the right side of the frontal part of the participants’ brains was activated. In the control group, no sign of activation was found in participants’ brains. Thus, when a person is motivated, his/her front-right part of the brain becomes active. This specific state in the brain can be described as a person being motivated.

2. Music influences athletes’ minds

Some evidence shows that music motivates athletes. In an experiment conducted by Templin and Vernacchia\(^3\), five male intercollegiate basketball players were asked to watch music video clips. The videos showed successful performances of the players, and they watched the tape repeatedly during the season. In addition, as it was assumed that the combination of visual movements with auditory information benefits the observer more than only visual information, the players selected their own stimulating or inspirational music to listen to in the music video. The aim of the study was to determine if the music video clips provided a strong successful image that was reinforced simply by watching the tape repeatedly, thereby enhancing participants’ motivation and performance.

Postseason interviews were conducted to examine the effect of the treatment. Player 1 said that, with the help of the tape, his confidence had increased. He also said that the music he brought in increased his motivation more than the music selected by the investigator. Player 2 said that the tape was a helpful motivational tool that got him pumped up for games and ready to perform at his best. Player 3 loved to watch the tape; he watched it over and over as the season progressed. He changed the music on his tape three times during the season, and he seemed to enjoy the new songs a little better each time. Player 4 said that his confidence increased, and his perception of his playing became more positive. Player 5 said that he enjoyed the tape very much; it helped him prepare for great plays during the games. In conclusion, watching the music videos successfully enhanced players’ motivation to play the sport.

Another study demonstrated that listening to music enabled sports players to get better scores than usual\(^1\). A group of badminton players were asked to watch a motivational video that showed the players’ best plays along with their favorite music. The percentage of the successful shots before and after watching the video were subsequently compared. Players’ successful shot percentage increased significantly, by 8.9% on average, after they watched the video. These findings support the argument that the video with music improved athletes’ motivation, which in turn increased their performance.

3. Motivation, dopamine, and music

The link between music and motivation can be explained from a chemical aspect. Some scientists\(^5\) have suggested that listening to music causes the release of the neurotransmitter dopamine, which plays an important role in motivation. For example, the chemical substance L-Dopa, which was originally prescribed for Parkinson’s disease patients who lack dopamine in their brains, was later found to enhance not only Parkinson’s disease patients’ physical abilities, but also their motivation.

Music can arouse feelings of happiness and motivation, similar to rewards that involve the striatal dopaminergic system, which controls our physical and cognitive ability by releasing dopamine. Using tomography scanning, Salimpoor, Benovoy, Larcher, Dagher, and Zatorre found that, when listening to music, dopamine is released in the part of the brain called the nucleus accumbens. A tomographic image taken for the research revealed a significant release of dopamine. The results indicate that pleasure in response to music can lead to a dopamine release in the striatal system, which leads to better performance in actions taken by an individual.

4. Implications

Based on the evidence discussed herein, we argue that music has a great power to enhance our motivation. We can use music to motivate ourselves in our daily lives, such as before an important exam, before a tennis match, or during a break in a basketball game. With increased motivation, our
performance will improve accordingly.

Conclusion

Music is one factor that triggers motivation and enhances our performance. Previous studies have explained why music is so highly valued by all human beings. Many athletes listen to music before a match for logical reasons. Listening to music definitely helps us get motivated and perform better.

References

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