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Relationship Between Elite Amateur Boxers' Rhythm Sense and Lateralization Levels

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ABSTRACT: This study aims to explore possible relationships between rhythm sense levels and hand preference, eye dominance, hearing durations, and sports ages of active elite amateur boxers who continue their sports lives. Eighty healthy male elite amateur boxers between the ages of 17 and 35 participated in the study. Their rhythm sense levels, hand preferences, eye dominance, and hearing durations were determined. Data were analyzed using the chi-square test to discover potential variables' connections. Findings indicate a statistically significant relationship between left-handed and right-handed boxers in terms of rhythm sense levels ($\chi 2 = 14.435$, $p = 0.002$), between rhythm sense levels and sports ages ($\chi 2 = 9.317$, $p = 0.025$) and rhythm sense levels and hearing durations ($\chi 2 = 12.971$, $p = 0.044$). However, no significant relationship was detected between rhythm sense levels and eye dominance ($\chi 2 = 943$, $p = 0.815$). Elite amateur boxers with different hand preferences may differ in their rhythm sense levels and lengthened regular boxing training can improve the level of rhythm sense.

Keywords: boxing, eye dominance, hand preference, hearing duration, rhythm.

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1. INTRODUCTION

Sport is based on the principle of the integrity of the human organism in general, and its purpose is to contribute to people's physical, mental, spiritual, and social development (*Doğar, 1997*). The athlete's body is considered a means of self-expression. Accordingly, regular and accurate training can achieve its correct use and development in all aspects (*Aktaş, 1999*). Based on this training, the athlete should be willing to develop their level of endurance to training, the strength to endure hard work, to train their body, and to develop the level of rhythm. In some sports, the perfect level of movement ability and the development of creativity can be achieved by improving the level of rhythm sense (*Langhans & Lau, 1972*).

Movements against real or imaginary power vary by the requirements of speed. In this case, the rhythm feature of the movement stands out. Just as seen in music, the movements are performed with varying lengths of time, speed, and rhythm. Measures form beats in the music, making up the musical phrases. In such movements, the movement comes together to form sentences. Just as rhythm and speed affect the expressive quality of music, it also affects the expressive quality of movement (*Karaalıkornet, 1998*).

Rhythm can be considered the center of the techniques applied to improve physical abilities. Regular movements are complex events in which the will to move and the nervous system arise in a set of rules. The rhythm of the movement is of great importance in this complex. Therefore, the rhythm provides order in the flow of the movement. Rhythm is derived from the word "Rheo" which means to flow in ancient Greek and is used in many different areas of human life. However, when it comes to rhythm, the first thing that comes to mind is musical rhythm. Nonetheless, rhythm is generally defined as a series of beats heard one after another in a certain order or as a series of regular and specific movements performed, seen, heard, or felt in successive sets (*Doğan & Altay, 1990*).

In daily life, according to physiological rules, it is seen that every action develops in proportion to the relation of rhythm and tempo of every action and every movement. All movements performed by the individual are made according to the rhythm of the igniting internal action. Accordingly, the measurements and values of voluntary and regular movements are determined and evaluated in line with the rhythm-tempo relationship (*Langhans & Lau, 1972*).

Rhythm also has the characteristics of a certain division in motion. This is a temporal and dynamic segmentation. The temporal and periodic variability of the contractions and relaxations that cause movement, the dynamic nature of the movement, is evaluated as the movement rhythm. The smooth transition of the movement between the contraction and relaxation phases is explained as dynamic segmentation. Thus, the rhythm of movement is defined as the dynamic division of motion (*Özkan, 1994*). Especially in the harmony of the group rhythm, the dynamic integrity of the movement is more evident (*Schmolke & Tıedt, 1995*). While doing sports every stage must have rhythm, such as locomotor movements, balance postures, leaping, jumping, hopping, etc. Movement without rhythm is not balanced and cannot be successful (*Alagöz et al., 2015*).

Dominant word meaning is defined as the most effective, controlling, commanding, principal element, and the word preference, on the other hand, is used to consider something important over another choice and preference; superior and better (*Catharine & Angus, 1995*). Although a person can use both sides of the brain well, one half of the brain is dominant over the other for the most part with regard to privileged use and skill (*Gabbard & Hart, 1996*). Left and right symmetric components; functional activities that require using hands, feet, eyes, and hearing have a single side preference. Single-side-only preference is called laterality (*Nissan et al., 2004*). People often prefer one over the other in using their hands or feet. This predisposition has anatomical and social infrastructure bases (*Doğar & Şen, 2019*). Almost all right-hand preferences predominantly use the left hemisphere, while left-hand preference mainly uses the right and partly the left hemispheres. The brain's left hemisphere is responsible for sensory and motor functions on the right side of the body. In contrast, the right hemisphere is responsible for sensory and motor functions on the left side of the body. Therefore, it can be concluded that there is a cross (*Özsu, 2006*).

Looking at individuals' hand and foot preference rates is an excellent method to determine the dominant hemisphere. However, education, health, and family pressure can also affect the individual's hand and foot preferences. For these and similar other reasons, researchers have embarked on new research to show cerebral bias correctly, other than hand preference (*Eyre & Schmeeckle, 1933*). As a result of these studies, it has been reported that the dominant eye is not affected by education in any way (*Coren & Kaplan, 1973*), and that the dominant eye accurately reflects the functional asymmetry of the brain (*McManus et al., 1999*). In addition to determining the dominant eye, it is thought that the ear with a long hearing period, which is determined by looking at the ear bone and airway hearing time, can give information about which hemisphere of the brain is dominant (*Çağlar, 2016*).

By reviewing the literature, there is not a sufficient amount of research regarding any possible relationship between boxing and rhythm sense and lateralization levels. Therefore, this study aims to determine whether there is a relationship between rhythm sense levels and hand preference, eye dominance, and hearing durations of elite amateur boxers who continue their active sports lives, and whether these mentioned factors also affect each other and the boxers' rhythm sense levels.

2. METHOD

2.1. Participant (Subject) Characteristics

Prior to measurements, approval from the "Ethics Committee of Ataturk University Faculty of Sport Sciences" was granted for the present research. Eighty healthy male elite amateur boxers between the ages of 17 and 35 who continue their active sports life within different sports clubs in Istanbul, Erzurum, Trabzon, and Bayburt, Turkey were included in the study. Participants did not include any individuals with any pathology restricting visual acuity and hearing duration. All participants were instructed on the research aims and each individual completed and signed an informed consent form.

2.2. Data Collection Tools

2.2.1. Measuring the sense of rhythm

A "Personal Information Form" was used to collect background information about the boxers (Name, Surname, Age, Gender, Education/School, Height, and Weight). A "Rhythm Perception and Practice Test" was used to measure the rhythm sense levels of the boxers One of the researchers prepared this test, and its Cronbach alpha coefficient score was found to be 0.748. This test includes four different rhythm questions; the subject tries to hit the same rhythm that he hears, based on the principle of sense-perceive-apply. Research data were collected with the help of an expert within an inventory developed only to measure the level of rhythm sense. Subjects were given three attempts for each rhythm question. They earned different points according to the order in which they were able to repeat the rhythm successfully they heard (Test 1; 4 points on the first attempt, 2 points on the second attempt, 1 point on the third attempt / Test 2; 6 points on the first attempt, 4 points on the second attempt, 3 points on the third attempt / Test 3 and 4; 10 points on the first attempt, 8 points on the second attempt, 4 points on third attempt).If the rhythm test could not be answered in all three attempts, the subject was deemed unsuccessful and could not score any points. The subjects scored between 0 and 30 points. According to the test's evaluation scheme, 0-7 points were determined as weak, 8-15 points as moderate, 16-22 points as good, and 23-30 points as very good (Appendix 1).

2.2.2. Determining hand preference

"Edinburgh Inventory Hand Preference Questionnaire (*Oldfield, 1971*)" was used to determine the hand preferences of the boxers. There are ten items in the questionnaire about manual activities. The subjects were asked to respond to the actions of "writing, drawing, throwing a ball or stone, holding scissors, brushing teeth, holding a knife, holding a fork, holding a spade handle, striking a match, and opening a bottle cap" by choosing the following options: "always with the right hand, usually with the right hand, with both hands, usually with the left hand, always with the left hand." Answers were scored between -100 and +100. "Always right-handed" preference was given +10 points, "usually right-handed" preference was given +5 points, "both-handed" preference was given 0 points, "usually left-handed" preference was given -5 points, "always left-handed" preference was given -10 points and all the scores were added. As a result, those with a degree between +20 to +100 were considered right-handed, those between +20 to -20 were considered two-handed, and those between -20 to -100 were considered left-handed.

2.2.3. Determining eye domination

The Dolman Method (hole-in-the-card test) was used to determine the eye dominance of the boxers (*Fink, 1938*). During the test, the subjects were asked to sit with their arms stretched and look towards the letter "E" placed 3 meters away through the 3 cm opening on the paper they were holding. 25x15 cm in size. Later, the athlete's left eye and then the right eye were covered by the assistant and they were asked whether there was any image on the chart. After this test was repeated twice, the dominant eye was considered to be the left eye, if there was no image on the chart with the left eye closed, and the dominant eye was considered to be the right eye if there was no image on the chart when the right eye was closed.

2.2.4. Measuring the duration of hearing

In order to determine the ear preferences and the duration of hearing of the boxers, the method developed by Dane and Bayirli (*1998*) was implemented. 128 Hz tuning fork and stopwatch were used for this test. The tuning fork developed by Dane and Bayirli (*1998*) was struck at standard power through the electronic circuit, and it was held 1 cm close to the subject's ear. The stopwatch was started as soon as the tuning fork was hit. The subject was asked to stop the stopwatch with the button given in his hand when the tuning fork ended, when they could not hear it anymore. Thus, the hearing durations of both ears were determined. If there was a difference of fewer than 5 seconds between the left and right ears in terms of hearing times, the hearing times of both ears were considered equal.

2.2.5. Determination of sports ages

Statements of individuals were taken as a basis for determining sports ages.

2.3. Data Analysis

For the statistical evaluation of the data, using the IBM SPSS Statistics 22.0 package program (IBM Corp., Armonk, NY, USA), the chi-square test was used to explore any potential relationships among hand preference, eye dominance, and duration of hearing of the subjects. The test was also used to discover any possible connections between rhythm sense levels and hand preference, eye dominance, hearing times, and sports ages of the subjects. The statistical significance level was taken as $p < 0.05$ in the analyses.

3. RESULTS

Eighty boxers whose ages varied between 17 to 35, heights 160 to 194 centimeters, and weights 54 to 98 kilograms participated in the present study. The average age was 20.46 ± 3.79 years, the average height was 176.26 ± 6.98 cm, and the average weight was 70.31 ± 10.46 kg. Regarding sports age, the subjects were categorized as part of the less than five years of experience group and more than five years of experience group. 46.2% (n = 37) of the boxers have been boxing between a minimum of 3 years and a maximum of 4 years - placed in the below 5 years of experience group, and 53.8% (n = 43) have been boxing between a minimum of 5 years and maximum of 20 years - placed in above five years of experience group. 81.2% (n = 65) of the subjects participating in the study preferred the right hand, and 18.8% (n = 15) preferred the left hand. 66.2% (n = 53) of the boxers had the right eye as dominant, while 33.8% (n = 27) had a dominant left eye. 18.7% (n = 15) of the boxers had long hearing durations in the right ear and 22.5% (n = 18) in the left ear, 58.8% (n = 47) of the boxers' left and right ear hearing durations (±5 sec-Equal) were found to be very close to each other. Regarding rhythm sense level, 21.2% (n = 17) of the boxers who participated in the study classified as weak, 30% (n = 24) as moderate, 37.5% (n = 30) as good, 11.3% (n = 9) as very good.

Table 1. Analysis of the relationships between boxers' hand preferences, eye dominance, and hearing durations

Hand Preference	**Eye Dominance**	**n**	**%**	**χ2**	**p**
Right Hand	Right Eye	51	78.5	23.120	.000*
	Left Eye	14	21.5		
	Total	65	100		
Left Hand	Right Eye	2	13.3		
	Left Eye	13	86.7		
	Total	15	100		
Eye Dominance	**Hearing Duration**	**n**	**%**	**χ2**	**p**
Right Eye	Right Ear	11	20.7	4.944	.084
	Left Ear	8	15.1		
	Equal	34	64.2		
	Total	53	100		
Left Eye	Right Ear	4	14.8		
	Left Ear	10	37.1		
	Equal	13	48.1		
	Total	27	100		
Hand Preference	**Hearing Duration**	**n**	**%**	**χ2**	**p**
Right Hand	Right Ear	14	21.6	15.006	.001*
	Left Ear	9	13.8		
	Equal	42	64.6		
	Total	65	100		
Left Hand	Right Ear	1	6.7		
	Left Ear	9	60		
	Equal	5	33.3		
	Total	15	100		

*p<0.05

Out of the 65 right-handed boxers participating in the study, 78.5% (n = 51) had a dominant right eye, while 21.5% (n = 14) had a dominant left eye. Of the 15 left-handed boxers, 13.3% (n = 2) had a dominant right eye, while 86.7% (n = 13) had a dominant left eye. Consequently, a statistically significant relationship ($\chi2 = 23.120$, $p = 0.000$) was observed between the boxers' hand preferences and eye dominance. Boxers with right-hand preference had a high ratio of right eye dominance, while boxers with left-hand preference had a high ratio of left eye dominance.

Of the 53 boxers whose right eye was dominant, 20.7% (n = 11) had a long hearing duration in the right ear, 15.1% (n = 8) had a long hearing duration in the left ear, and 64.2% (n = 34) had similar hearing durations (± 5 sec - Equal) in their right and left ears. Of the 27 boxers with a dominant left eye, 14.8% (n = 4) had a long right ear hearing duration, 37.1% (n = 10) had a long hearing duration in the left ear, and 48.1% (n = 13) had similar hearing durations (± 5 sec - Equal) in the right and left ears. Therefore, a statistically significant relationship ($\chi2 = 4.944$, $p = 0.084$) was not found between the eye dominance and duration of hearing of the boxers.

Of the 65 right-handed boxers participating in the study, 21.6% (n = 14) had a long hearing time in the right ear, 13.8% (n = 9) had a long hearing time in the left ear, and 64.6% (n = 42) had similar hearing durations (± 5 sec - Equal) in their right and left ears. 6.7% (n = 1) of 15 left-handed boxers who participated in the study had a long hearing time in the right ear, 60% (n = 9) had a long hearing time in the left ear, and 33.3% (n = 5) had similar hearing durations (± 5 sec - Equal) in their right and left ears. Thus, while the hearing durations of the right-handed boxers in the right and left ears were equal, the hearing durations of the left-handed boxers in the left ear were long. A statistically significant relationship ($\chi2 = 15.006$, $p = 0.001$) was observed between boxers' hand preference and hearing durations.

Table 2. Analysis of the relationships between boxers' rhythm senses and hand preferences

Rhythm Sense Level	Hand Preference	n	%	χ2	p
Weak	Right Hand	16	94,1	14.435	.002*
	Left Hand	1	5.9		
	Total	17	100		
Moderate	Right Hand	23	95,8		
	Left Hand	1	4.2		
	Total	24	100		
Good	Right Hand	22	73,3		
	Left Hand	8	26.7		
	Total	30	100		
Very Good	Right Hand	4	44,4		
	Left Hand	5	55.6		
	Total	9	100		

***p<0.05**

Of the boxers with a weak sense of rhythm, 94.1% (n = 16) were right-handed, 5.9% (n = 1) were left-handed, and 95.8% (n = 23) of boxers with a moderate sense of rhythm were right-handed, 4.2% (n = 1) were left-handed, and of the boxers with a good sense of rhythm, 73.3% (n = 22) were right-handed, 26.7% (n = 8) were left-handed, and regarding the boxers with a very good rhythm sense level 44.4% (n = 4) of them were right-handed, 55.6% (n = 5) of them were left-handed. The rhythm sense levels of left-handed boxers were higher than the right-handed boxers. Consequently, a statistically significant relationship ($\chi2 = 14.435$, $p = 0.002$) was observed between the boxers' rhythm sense levels and hand preferences.

Table 3. Analysis of the relationships between boxers' rhythm senses and eye dominances

Rhythm Sense Level	Eye Dominance	n	%	χ2	p
Weak	Right Eye	12	70.6	.943	.815
	Left Eye	5	29.4		
	Total	17	100		
Moderate	Right Eye	15	62.5		
	Left Eye	9	37.5		
	Total	24	100		
Good	Right Eye	21	70		
	Left Eye	9	30		
	Total	30	100		
Very Good	Right Eye	5	55.6		
	Left Eye	4	44.4		
	Total	9	100		

***p<0.05**

Of the boxers with poor rhythm sense levels, 70.6% (n = 12) had their right eye as dominant, while 29.4% (n = 5) had their left eye as dominant. Of the boxers with a moderate rhythm sense level, 62.5% (n = 15) had a dominant

right eye, while 37.5% (n = 9) had a dominant left eye. Of the boxers with a good sense of rhythm, 70% (n = 21) had their right eye as dominant and 30% (n = 9) had their left eye as dominant. Of the boxers with a very good rhythm sense level, 55.6% (n = 5) had the right eye and 44.4% (n = 4) had the left eye as dominant. No statistically significant relationship was discovered ($\chi2 = 943$, $p = 0.815$) between rhythm sense levels and eye dominance.

Table 4. Analysis of the relationships between boxers' rhythm senses and hearing durations

Rhythm Sense Level	Hearing Duration	n	%	χ2	p
Weak	Right Ear	4	23.5	12.971	.044*
	Left Ear	4	23.5		
	Equal	9	53		
	Total	17	100		
Moderate	Right Ear	8	33.3		
	Left Ear	1	4.2		
	Equal	15	62.5		
	Total	24	100		
Good	Right Ear	3	10		
	Left Ear	11	36.7		
	Equal	16	53.3		
	Total	30	100		
Very Good	Right Ear	0	0		
	Left Ear	2	22.2		
	Equal	7	77.8		
	Total	9	100		

***p<0.05**

The table also presents that 23.5% (n = 4) of the boxers with poor rhythm sense had a long right ear hearing time, 23.5% (n = 4) had a long hearing time in the left ear, and 53% (n = 9) had similar hearing durations (± 5 sec - Equal) in their right and left ears. Of the boxers with a moderate rhythm sense level, 33.3% (n = 8) had a long hearing time in the right ear, 4.2% (n = 1) had a long hearing time in the left ear, and 62.5% (n = 15) had similar hearing durations (± 5 sec - Equal) in their right and left ears. Of the boxers with a good sense of rhythm, 10% (n = 3) had a long right ear hearing time, 36.7% (n = 11) had a long hearing time in the left ear, and 53.3% (n = 16) had similar hearing durations (± 5 sec - Equal) in both ears. On the other hand, 22.2% (n = 2) of boxers with a very good sense of rhythm had a long-left ear hearing time, and 77.8% (n = 7) had close hearing times in the right and left ear (± 5 seconds - Equal). In addition, among the boxers with very good rhythm sense, no athlete with a long right ear hearing was found. When sense levels of rhythm and duration of hearing are compared, a statistically significant ($\chi2 = 12.971$, $p = 0.044$) relationship was observed.

Table 5. Analysis of the relationships between boxers' rhythm senses and sports ages

Rhythm Sense Level	Sports Age	n	%	χ2	p
Weak	Under 5 Years	11	64.7	9.317	.025*
	5 Years and Over	6	35.3		
	Total	17	100		
Moderate	Under 5 Years	14	58.3		
	5 Years and Over	10	41.7		
	Total	24	100		
Good	Under 5 Years	11	36.7		
	5 Years and Over	19	63.3		
	Total	30	100		
Very Good	Under 5 Years	1	11.1		
	5 Years and Over	8	88.9		
	Total	9	100		

***p<0.05**

64.7% (n = 11) of the 17 boxers with poor rhythm sense have been boxing for less than five years, while 35.3% (n = 6) have been boxing for more than five years. 58.3% (n = 14) of the 24 boxers with a moderate rhythm sense level have been boxing for less than five years, while 41.7% (n = 10) have been boxing for more than five years. 36.7% (n = 11) of the 30 boxers with a good sense of rhythm have been boxing for less than five years, while 63.3% (n = 19) have been boxing for more than five years. On the other hand, 11.1% (n = 1) of 9 boxers with a very good sense of rhythm have been boxing for less than five years, and 88.9% (n = 8) have been boxing for more than five years. The rhythm sense levels of the athletes who have been boxing for over five years, in general, were higher than those who have been boxing for under five years. Thus, there is a statistically significant difference ($\chi2 = 9.317$, $p = 0.025$) between the rhythm sense levels of the athletes who boxed for more than five years and less than five years.

4. DISCUSSION

Results show most of the boxers preferred the right hand and right eye. According to Gündoğan et al. (*2007*), people with right-hand and right-eye preferences generally have the left hemisphere as dominant. In contrast, those with left-hand and left-eye preferences generally have the right hemisphere as dominant. Therefore, it is speculated that the dominant hemisphere of the majority of the boxers participating in the study may be the left hemisphere. Furthermore, 66.2% (n = 53) of the boxers were identified as having their right eye as dominant and 33.8% (n = 27) of them as having their left eye as dominant. Gündoğan et al. (*2007*) stated that the number of people with dominance in the right eye was higher than those with dominance in the left eye, and this rate could increase up to 1/3. The present study is similar in this regard. Of the 15 left-handed boxers, 13.3% (n = 2) had a dominant right eye and 86.7% (n = 13) had a dominant left eye in the present study. As Gürez (*2013*) cites, Miles stated that the "left eye is dominant in one-third of people who prefer left hand." In this study, this rate is more than half. Considering the cases of boxers having cross-hand-eye dominance, it was observed that 20% (n = 16) had cross-hand-eye dominance. In the studies of Bourassa et al. (*1996*); Eyre & Schmeeckle (*1933*) and Orton (*1925*), this rate was found to be 20. The current study is comparable in this aspect.

This study discovered that left-hand preferred boxers got higher scores on the rhythm sense test than right-handed boxers. Therefore, the superior rhythm sense levels of left-handed boxers compared to right-handed boxers may positively affect the competition's success. In the study conducted by Gürsoy (*2008*), the competition success of left-handed and right-handed boxers was compared and it was revealed that left-handed boxers were superior to right-handed boxers in terms of competition success. In this respect, within the data obtained in the study, it is indicated that one of the important factors affecting the success of left-handed boxers might be the sense of rhythm.

In the study conducted by Güryıl (*2011*) on children aged 6, it was observed that rhythmic movement activities increased coordination performance. Aktı (*2005*), on the other hand, in his study on athletes, determined the positive effects of rhythm training on athletes' performances. In his study on 30 tennis athletes with an average age of 23.1, Söğüt and Kirazcı (*2012*) also argued that there was a significant difference between the pre-test and post-test rhythm skills and tennis playing skills of the tennis athletes participating in rhythm training. In another related research by Söğüt and Kirazcı (*2014*), it was found that tennis athletes' rhythm skill scores are higher than sedentary individuals. Significant differences were also found between elite athletes and sedentary individuals in terms of the sense of rhythm in the study conducted by Gerek and Katkat (*2006*). In line with all the mentioned studies, in the present study, the rhythm sense levels of the boxers and their sports ages were compared and a statistically significant relationship was observed between them. Accordingly, it was explored that the rhythm sense levels of the athletes who boxed for more than five years were higher than those who boxed for less than five years. In this direction, it is concluded that regular boxing training may improve the feeling of rhythm.

As a strength of this study, the literature review indicates that there need to be more studies examining the relationship between the sense of rhythm and sports. In this regard, the current study sheds a light on this inadequately explored area. However, the present study was limited to boxers only. Considering this detail, it can be suggested that more comprehensive scientific studies should be conducted on the relationship between the sense of rhythm and sports.

5. CONCLUSION AND SUGGESTIONS

Results suggest that the sense of rhythm can be improved by doing regular and long-term sports as exhibiting sports movements and performing these movements in a rhythmic order can contribute to the development of the sense of rhythm. Boxing is a sports branch that contains rhythmic senses directly. A developed sense of rhythm in boxing supports sports performance. Considering this detail, it is thought that not skipping rhythmic exercises and performing them efficiently during boxing training can benefit the athletes in terms of competition success.

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7. ETHICS STATEMENT

This research was not funded by any organization. Prior to measurements, an approval from the "Ethics Committee of Ataturk University Faculty of Sport Sciences" was granted for the present research (08.01.2018).

8. AUTHOR CONTRIBUTIONS

MSÇ was the organizer of the study and conducted measurements, analyzed data, and developed the manuscript. ZG supervised all analyses, revised and edited the manuscript, and also, he is the developer of the Rhythm Detection and Practice Test. Both authors have read and approved the final version of the manuscript, and agree with the order of presentation of the authors. The authors declare that they have no competing interests.

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Appendix 1. Rhythm perception and practice test scoring of test items and evaluation scheme

1. ATTEMPT		2. ATTEMPT		3. ATTEMPT		FAILED	
4 POINTS		2 POINTS		1 POINT			

1. ATTEMPT		2. ATTEMPT		3. ATTEMPT		FAILED	
6 POINTS		4 POINTS		3 POINTS			

1. ATTEMPT		2. ATTEMPT		3. ATTEMPT		FAILED	
10 POINTS		8 POINTS		4 POINTS			

1. ATTEMPT		2. ATTEMPT		3. ATTEMPT		FAILED	
10 POINTS		8 POINTS		4 POINTS			

BETWEEN 0 - 7	BETWEEN 8 - 15	BETWEEN 16 - 22	BETWEEN 23 - 30
WEAK	MODERATE	GOOD	VERY GOOD