

THE IMPACT OF THE CHANGE IN THE MUSICAL ATTRIBUTES OF THE CODE OF POINTS (2013-2016) ON THE ROUTINES IN RHYTHMIC GYMNASTICS OF THE RIO 2016 OLYMPIC GAMES

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Original article

Abstract

The Rhythmic Gymnastics Code of Points, 2013-2016, was a milestone by allowing vocal music in routines. This study aimed to analyze the impact of this change in the routines, at the RIO 2016 Olympic Games. This is a documentary research, with two types of sources: official International Federation of Gymnastics; and videos of the routines. The sample was composed of 26 individual athletes and 14 teams. The analysis was quantitative (incidence parameter) and qualitative (type of music). As a result, we identified that, of the 104 songs of individual routines, 81 were instrumental music (IM) and 23 represented music with voice and words (MVW). Among the IM, 21 were North-American (NA) and 60 from other nationalities (ON). Of the MVW, 11 were NA and 12, from ON. In team routines, of the 28 songs, 17 were IM and 11 were MVW. Of the IM, 6 were NA and 11, from ON. Among the MVW, 6 were NA and 5, from ON. We conclude that most of the gymnasts and teams used this new rule of the Code of Points. This change was effectively incorporated into world prominence delegations, and we verified the strong influence of NA music.

Key words: *Rhythmic Gymnastics, Olympic Games, Code of Points, North-American Music.*

INTRODUCTION

Since its regulation as a sport by the FIG in 1970, Rhythmic Gymnastics (RG) “has a set of rules that guide evaluation techniques of gymnasts and, therefore, training methods and composition of choreography” (Toledo & Antualpa, 2016). These choreographies, also called routines or series, assume an artistic character of this discipline, an affirmation supported by various authors and former renowned

gymnasts, considering those from the last decades (Heins, 1978; Bodo-Schmid, 1985; Robeva & Rankélova, 1991; Lisitskaya, 1995; Bobo & Sierra, 1998) and more contemporary ones, as will be demonstrated below. The FIG itself, the regulatory entity of this practice, highlights this character in the definition:

»Combining the elegance of the ballet with the drama of the theatre, Rhythmic

Gymnastics bursts with glamour, *blurring the boundaries between sport and art*. Rhythmic gymnasts strive to enchant judges and audiences with the polish of their exercises while executing enormously difficult maneuvers with one of four handheld apparatus: the Hoop, Ball, pair of Clubs and Ribbon (FIG, 2018)«.

With its origin in the discipline's own history, this relation was influenced by artists and pedagogues, specifically those from the areas of theater, music and dance, within which a few names deserve to be highlighted: Jean Georges Noverre, François Delsarte, Rudolf Von Laban, Isadora Duncan, Elizabeth Duncan and Emile Jacques Dalcroze (Langlade & Langlade, 1970; FIG, 2018).

Music, and therefore its interpretation by the gymnast, is a very important element in routines of RG (FIG, 2013), in which strict harmony between the music's character and rhythm, and the character of the exercise and its movements is a necessity (FIG, 2001). Through it and the body language of the gymnasts combined, athletes convey to the public a few prints, as the choreography allows the subject to express their thoughts and feelings on a theme (Sborquia, 2008). Music is so important in the routines of RG that modifications related to it in the Code of Points (CoP), which occur every four years at the end of each Olympic cycle, bring significant changes to the discipline. For practically the same group of authors, the artistic dimension is part of the study of the content of the routines:

The study of the routines content should cover not only the technical elements: body, apparatus, and group specificities, but also, as the execution artistic dimension since it is from the combination of all these factors that is possible to point out a comprehensive and integrated analysis of the RG routines composition. (Ávila- Carvalho, Leandro & Lebre, 2014, p.90).

The CoP "provides universal guidelines established by scientific and technical committees to assess the

performance and promotion of sports development" (Ávila-Carvalho, Klentrou & Lebre, 2012), and the changes ensure a better precision in the judgment of gymnasts and improve the quality of this sport (Leandro, 2016). However, the constant changes made to the CoP may, at times, prejudice the gymnasts' training and routines, as well as plans established for the training of techniques (foreseen within an Olympic cycle - the macrocycle), specially when these changes are made within a single cycle of the CoP, through the "FIG newsletters".

Lourenço (2010, p.116;140) provides us with an interesting view regarding these aspects:

[...] RG still has a big problem to be solved, which is the question related to the duration of the rules. The Code is organized, at first, to last four years, but changes take place annually, with the systematic production of "FIG newsletters" that present clarifications, but also, many changes in criteria and minor adjustments in the rules that hinder the understanding of referees and a lighter assessment. The "FIG newsletters" also bring the originality of the year and new difficulties created and already granted by the FIG Technical Committee. We realize that gymnasts and especially coaches are concerned with always staying alert to changes, in order to enhance their compositions without running the risk of unnecessary prejudice. [...]. The RG Code of Points mutates, new changes should occur in the space of, at least, four years, but they happen annually. Although people notice these changes, especially in difficulty and the *artistic* component, and seek an adequate manner to work with them [...] they still do not have an exact idea of the totality and maybe do not notice the possibilities that these changes offer in helping with the identity of their work (our emphasis).

Still speaking about the musical aspect, evaluated by the "artistic", up until 2012, the CoP allowed the vocal accompaniment in songs if the human voice was used only as an instrument (no

words). In the following CoP (2013-2016), music is allowed to be interpreted by one or more instruments or a musician, including the voice used as an instrument, but only in one of the four individual routines, and in one of the two group routines.

1.5.5 The music can be interpreted by one or several instruments, *including the voice used as an instrument*. All instruments are authorized provided that they express music with the characteristics necessary to accompany an RG exercise: clear and well- defined in its structure.

1.5.6 Musical accompaniment of voice with words may be used for one Group exercise and two individual exercises *in respect to ethics*. (FIG, 2013 - our emphasis).

According to Toledo and Antualpa (2016, p.129), this permissiveness of routines with music with voice and words (MVW) and significant changes in the assessment of the artistic aspects of the routines of this code marked this edition of the CoP for a few reasons:

The promoting of the artistic aspects of RG in the new CoP meets the origins of the sport. Such condition shows the manifestations of rhythmic and dance, as major influences of the artistic character of this sport. An aspect that has been valued in the teaching of the sport, by some authors in contemporary times, such as Toledo, Vidal, Marquez and others. The current Code of Points (2013-2016) can be regarded as a cycle, which marks the sport's story by two aspects: the permissiveness of routines with singing (which, since the creation the CoP, has not been allowed) and significant changes in the appreciation of the artistic aspects of the routines.

In regard to the music characteristics, Junior (2006, p.37) defines the "musical performance as an act of communication that assumes a relationship between performer and listener," citing performative aspects, such as rhythm, musical performance, bodily and vocal settings, in addition to aspects of musical composition,

such as loudness, reverb, and pitch of the voice in relation to musical instruments. A few of these aspects are requirements in the Rhythmic Gymnastics routines, either directly or indirectly, and contribute to what the FIG defines as "Artistic Components" (FIG 2013).

Before this undeniable influence of music in the sport, this study aims to identify and analyze the impact of the change in the CoP (2013-2016) in permitting music with voice in the "Artistic Components", in one of the routines (both individual and team), in the first version of the Olympic Games (OG) that succeeded it, by identifying them in the finalists' routines, at the RIO 2016 Olympic Games.

Thus, this research brings accurate and important data on the world scenario, about the use or not of this recent change of CoP, by the most international teams. The manuscript has an unprecedented way of presenting and re-organizing the data (already made available by official FIG documents), as well as by analyzing them in the scientific field (with a quantitative and qualitative approach).

METHODS

This research is descriptive and documentary (Gerhardt & Silveira, 2009), since it seeks to describe facts and phenomena of a reality from the analysis of sources. For the researcher Craig Kridel, from the University of South Carolina (USA), in an article published by the American Educational Research Association (AERA, 2017), documentary research, serving as both a complement to and extension of biographical inquiry, takes on different meanings in the field of education. In one sense, documentary research becomes synonymous with archival research and addresses issues related to the role and use of documents and public and private records. In another sense, documentary research produces artifacts and material culture through

artistic representation, moving and still imagery, and sound recordings.

For this study, we used two main documentary sources. The first refers to the files titled "Individual / Group Music Selections" (official FIG document), available in the federation's institutional website, in reference to the RIO2016 Olympic Games. It contains a list with the names of the athletes/teams and the names of the songs of the routines and their respective interpreters/composers. The second documentary source was composed of video images available on an online platform (www.youtube.com), which were searched for using a combination of keywords: "Name of the athlete + apparatus + Rio 2016" (individual routines) or "country name + apparatus + RIO2016" (group routines). The search was conducted from April to May 2017, based on the data obtained in official FIG documents.

The sample included the finalist athletes and teams of Rhythmic Gymnastics participating in the RIO 2016 Olympic Games, and was composed of 26 individual athletes and 14 teams. We considered the series of the four apparatuses previously defined by FIG for this event: ball, hoop, clubs, and ribbon. In addition, the two apparatuses combined were also considered: five ribbons and three pairs of clubs + two hoops, established for this cycle in the group category.

In a first analysis of the data, although it was not our primary aim, caught our attention the use of North American Music. Due to the primary purpose of the study and the spatial limitations of this manuscript, we chose to bring this unique and highlight characteristic in the data, as categories of the study. Next manuscripts will bring the analysis of the other typologies of the used songs (other nationalities and styles like - folk, popular, classic etc).

The data were organized into a worksheet and, subsequently, into two different tables: one for individual series and another for group series (Charts 1 and 2). Once we began analyzing the typology

of the songs, they were analyzed and classified into two distinct categories, distributed into two tables, with 4 categories: Music with voice and Words (MVW - identified with a "shadow" in its name) or Instrumental Music (IM); North American Music (NAM) or Music from Other Nationality (MON). We chose to highlight one or two options in each table in order to allow for better visualization of the charts and analysis of the data.

Following the classification of the music in one of the two aforementioned categories, we began the data analysis. First, a quantitative analysis was performed by means of descriptive statistics, which, according to Morais (2005), is used to summarize the data collected from an investigation and to arrange them in numbers, tables, graphs, etc.

Next, we analysed the number of songs that represented IM and MVW that the athletes/teams used during the competition, and in which apparatus they were used. As has already been mentioned, due to the emphasis given to North American music, we chose to also identify how many of these songs were used during each phase of the competition, in an attempt to establish the influence of this music in the Rhythmic Gymnastics competition, focus of this study.

RESULTS

The results will be presented following the proposed objectives, by identifying, separately, the incidence of IM and MVW first in the individual routines and then in the group routines.

Individual Routines

In individual routines, represented by 26 gymnasts from 24 countries, we identified the following data from the documents utilized ("Individual Music Selections" and videos). The following table was elaborated from information contained in the FIG document (open access) after verification against the videos, presenting the name of the gymnasts (in

alphabetical order of the countries they used in the routines (title and represented), and the respective songs interpreter/composer), for each apparatus.

Table 1
Individual Music Selections in routines of the RIO2016 Olympic Games

INDIVIDUAL ROUTINES

	Gymnasts	Apparatus			
		Hoop	Ball	Ribbon	Clubs
1.	Danielle Prince (AUS)	“Nostradamus” – Maksim Mrvica	“Prelude” – Brian McKnight	“Americano” - <i>Lady Gaga</i>	“Big Beat” – Touch and Go
2.	Nicol Ruprecht (AUT)	“Tango Jalousie” – Barcelona Symphony Orchestra	“Summer Time” – Smooth Ballroom Orchestra	“Kiss” - <i>Prince</i>	“Carmen Suite” – Vienna Symphony Orchestra
3.	Marina Durunda (AZE)	(‘Harbors’, Piano version) – Rashid Afandiyev Nasiboghiu	“Madame Papillon” – Rene Aubry	“Never Enough (Caspian Mix) – Emin Agharalov	“Hey Pachuco” - <i>Majas Band, Kseniya Shamarina, Ivonna Freidmane</i>
4.	Katsiarina Halkina (BLR)	“Ondeia” - <i>Dulce Pontes</i>	“Carol of the Bells” – The Piano Guys	“Tchiki Tchiki Tchiki” – Little Barrier	“Once Upon Love” – William Joseph
5.	Melitina Staniouta (BLR)	“Agnus Dei” - Noella	“Fantasy for Violin and Orchestra” – Joshua Bell	“Gipsy Romance” – Folk Music Orchestra	“Appassionata” – Valentina Lisitsa
6.	Nataliá Gaudio (BRA)	“Smells like teen spirit” – David Garrett	“Bandolins” - <i>Oswaldo Montenegro</i>	“Cidade Maravilhosa” – Dudu Nobre e Diego Nicolau	“Dracula” – Wojciech-Kilar
7.	Neviana Vladinova (BUL)	“Theme from Schindler’s List” – Itzhak Perlman	“Tanguera” – Sexteto Mayor	“Buleria” - <i>David Bisbar</i>	“Mixed – Overture, Nostalic, Extreme, Delirium” – Les Tambours du Bronx
8.	Rong Shang (CHN)	“Habanero” - Maksim	“Addio Del Passato” - <i>Fillippa Giordanno</i>	“Piano Fantasy” – William Joseph	“Apasionada” – Enzo Draghi
9.	Elyane Boal (CPV)	“Fanatico Master” – Edwin Marton	“Summertime” – Porgy and Bess	“Christal Fighters” - <i>Christal</i>	“Knock on Wood”

			<i>Fighters</i>	– Safri Duo	
10	Carolina Rodriguez (ESP)	“Punta de faro (Nueva antologia) – Paco de Lucia	“ <i>Imaginando</i> ” - <i>Diana Navarro</i>	“Tema de Sira (El tiempo entre costuras) – Cesar de Benito	“Flamenco (Pulse)” – Eva Yerbabuena
11.	Ekaterina Volkova (FIN)	“Espana Cani” – Spanish Gypsy Dance (Paso Doble)	“Lonely Day” – System of a Down	“Summertime & Storm from Four Seasons» - Ikuko Kawai	“ <i>Cuba 2012</i> ” – <i>Dj Rebel</i>
12.	Kseniya Moustafaeva (FRA)	“Song on the Beach” – Arcade Fire	“In the middle somewhat elevated” – Thom Willems	“ <i>Je vais t'aimer</i> ” - <i>Michel Sardou</i>	“Escape from East Berlin” – Daniel Pemberton
13.	Salome Pazhava (GEO)	“Unstoppable” – E. S. Posthumus	“Chalkboard” – Ayeron	“ <i>Supremacy</i> ” – <i>Muse</i>	“Rachuli (Mokle Kaba)” – Group Bani
14.	Jana Berezko-Margrander (GER)	“ <i>A little party never killed nobody</i> ” – <i>Fergie</i>	“Maxime Rodriguez” – Maxime Rodriguez	“Como Se Anda en El Campo” – Korge Padro, Manolito Soler, Manolo Carrasco	“Olei” – Nino Katamasze & Insight
15.	Varvara Filiou (GRE)	“Someone Else” – Allegro Feat. L.V., Fresh Game & Cokni O’Dire	“The death of the bull” – Stavros Lantsias	“ <i>Got you</i> ” (<i>I feel good</i>) - <i>James Brown</i>	“Zorbas Dance – Sirtaki” – Mikis Theodorakis
16.	Neta Rivkin (ISR)	“Eleanor Rigby” – The Beatkes	“Just for You” – Giovanni Marradi	“ <i>Grande Amore</i> ” - <i>Il Vivo</i>	“Paint in Black” – The London Symphony Orchestra
17.	Veronica Bertolini (ITA)	“Je suis malade” – Serge Lama	“ <i>Que Viyera</i> ” - <i>Cirque du Soleil</i>	“Hunger (“Black Hawk Down” Soundtrack) – Hanz Zimmer	“Romani Holiday (Antonius Remix)/Sherlock Holmes ‘A game of Shadows’ soundtrack) – Hanz Zimmer
18.	Kaho Minagawa (JPN)	“All By Myself (Cover S. Rachmaninov)” – S. Rachmaninov – L. Dalton	“I Will Always Love You” – S. Rachmaninov – L. Dalton	“Waltz from ballet “Seven Beauties” – Royal Phillarmonic Orchestra	“Cabaret Sata” – Jean-François Cote
19.	Sabina Ashirbayeva (KAZ)	“ <i>Tango</i> ” - <i>DJ Valer</i>	“Sheherezada” – Nikolay Rimsky-	“Monster Bossa” – Murray Gold	“Latin Mix” – Alessandro Olivato

Korsakov

20.	Yeon Jae Son (KOR)	“Valse” – Nicolas Jorelle	“ <i>Parla Piu Piano</i> ” - <i>Filippa Giordano</i>	“Michel Camilo, Cinema Serenade, Orquesta del Tango” – Astor Piazzolla	“Oye Negra (part 1), Oye Negra (part 2)” – Terry Snyder, Edmundo Ros
21.	Ana Luiza Filioranu (ROU)	“Strenght of a thousand men” – Two Steps From Hell	“Run” – Ludovico Einauldi	“Magnifica Presence” – Orchestra directed by Catalano & Giuseppe Sasso	“Gimme Gimme Gimme” – The Royal Phillarmonic Orchestra
22.	Yana Kudryatseva (RUS)	“ <i>Horse</i> ” - <i>Male Choir Persevere</i>	“Piano Concerto in A major K 488 2 Adagio” – Amati Chamber Orchestra& Dalia Ouziel	44” – London Symphony Orchestra/G. Rozhdestvensky	“Black Gold” – Armand Amar & Orchestra
23.	Margarita Mamun (RUS)	“Conserto de Berlin” – Vladimir Cosme	“Morceaux de Fantasia Op. 3” – M. Maisky/S. Tiempo	“Black Swan – Night of terror” – C. Mansell & Orchestra	“ <i>We will rock you</i> ” – <i>Queen</i>
24.	Ganna Rizatdinova (UKR)	“España Cani” – Trio Norte	“ <i>I put a spell on you</i> ” - <i>Annie Lennox</i>	“Tomorrow Never Comes / Time to go crazy” – Rishi & Harshii	“They don’t care about us” – Michael Jackson/David Garrett, Franck Van der Heijden & Royal
25.	Laura Zeng (USA)	“Moonlight Sonata – 3 rd Movement” – Monsalve	“ <i>Feeling Good</i> ” - <i>Jennifer Hudson</i>	“Chez Les Ye Ye” - Boogalox	“Bolero” – Andre Rieu
26.	Anastasiya Serdyukova (UZB)	“Boat Chase” – John Powell	“Sway” - <i>Rosemary Clooney</i>	“Vokallz” – Brilliant Dadashova	“Ring ring ring” – Kurd & Rud

* MVW - *in italic*

Source: Adapted from FIG (2016)

Table 2

Use of North American Music (NAM) and Music from Other Nationality (MON) in RG individual routines of the RIO2016 Olympic Games.*

	Gymnasts	Apparatus			
		Hoop	Ball	Ribbon	Clubs
1.	Danielle Prince (AUS)	NAM	NAM	NAM	MON
2.	Nicol Ruprecht (AUT)	MON	NAM	NAM	MON
3.	Marina Durunda (AZE)	MON	MON	MON	NAM
4.	Katsiarina Halkina (BLR)	MON	NAM	MON	NAM
5.	Melitina Staniouta (BLR)	MON	MON	MON	MON
6.	Nataliá Gaudio (BRA)	NAM	MON	MON	MON
7.	Neviana Vladinova (BUL)	MON	MON	MON	MON
8.	Rong Shang (CHN)	MON	MON	NAM	MON
9.	Elyane Boal (CPV)	MON	MON	MON	MON
10.	Carolina Rodriguez (ESP)	MON	MON	MON	MON
11.	Ekaterina Volkova (FIN)	MON	NAM	MON	MON
12.	Kseniya Moustafaeva (FRA)	NAM	NAM	MON	MON
13.	Salome Pazhava (GEO)	MON	MON	MON	MON
14.	Jana Berezko Margrander (GER)	NAM	MON	MON	MON
15.	Varvara Filiou (GRE)	NAM	MON	NAM	MON
16.	Neta Rivkin (ISR)	NAM	MON	MON	NAM
17.	Veronica Bertolini (ITA)	MON	MON	NAM	NAM
18.	Kaho Minagawa (JPN)	NAM	NAM	MON	MON
19.	Sabina Ashirbayeva (KAZ)	NAM	MON	MON	MON
20.	Yeon Jae Son (KOR)	MON	MON	MON	MON
21.	Ana Luiza Filioranu (ROU)	MON	NAM	MON	NAM
22.	Yana Kudryatseva (RUS)	MON	MON	MON	MON
23.	Margarita Mamun (RUS)	MON	MON	MON	MON
24.	Ganna Rizatdinova (UKR)	MON	MON	MON	NAM
25.	Laura Zeng (USA)	MON	NAM	MON	MON
26.	Anastasiya Serdyukova (UZB)	MON	NAM	MON	MON

* *NAM* - in italic

Group routines

In group routines, represented by 28 routines from 14 different countries (with two routines per country), we identified the following information from the documents used ("Group Music

Selections" and videos), presented in the following table, elaborated within the same logic of the table 1: name of countries (in alphabetical order) and of songs of the respective routines (title and interpreter/composer).

Table 3

Use of Music with Voice and Words (MVW) in RG group routines of the RIO2016 Olympic Games.*

	Country	GROUP ROUTINES	
		5 Ribbons	Apparatus
			Hoops+Clubs
1.	Belarus	"Malaguena" – Benise	"Toccata and Fugue" – Bach Player David Garrett
2.	Brazil	"Aquarela do Brasil" – Ivete	"Mas que nada / Tico tico no Fubá

	<i>Sangalo e Otavio Santos</i>	<i>/Brasileirinho</i> – Otavio Santos
3. Bulgaria	“Yuvigi Han” – Gergi Andreev and Sofia Phillarmony	“Matrix – Mix / Chateau, Monalisa Overdrive, Burly Brawl” – Rob Dougan, Juno Reactor, Don Davis
4. China	“Swan Lake” – Dark Moor	“Batucada” – Dj Dero
5. Spain	“Vida Carnaval, Bahiana/Batucada, Samba School, Sambuka” – Carlinhos Brown, Inner Sense, Artem Uzunov	“Cementerio Judio, La aurora de Nueva York, Solea” – R. Amargo, Eduardo Cortes, J. Parrilla, F. Rodrigues
6. Germany	“Christ Trilogy” – Balzs Havasi & Dohnanyi Orchestra Budafok	“We will rock you” – Queen & Dean Cohen
7. Greece	“Zorbas Ballet Suite” – Mikis Theodorakis	“I want you to know” – Manolis Chiolis, Mimis Plessas
8. Israel	“Phantom of the Opera” – Lindsey Stirling	“Jerusalem, Rak Rotza Lirkod” – Itay Kalderon ft. Gad Elbaz, Moshe Peretz & Omer Adam
9. Italy	“Tu si’ na cosa grande / Tammurriata near / Nessun Dorma” – Massimo Ranieri / Damiano Mazzone	“Dance de Phyrne (from ‘Faust’, act V, scene 1)” - Herbert Von Karajan and Philharmonia Orchestra
10. Japan	“Maria Magdalena, Sabor a MI, Amparame” – Rindo, Kenny G, Lucrecia	“Tough Lover, Party Rockers, Loving You” - Christina Aguilera, Judith Hill, Gordon Goodwin’s big phat
11. Russia	“Samba do Brasil, those were the days” - Belini, Group Na-Na	“The Holy Spring, Time Forward” – State Academic Symphony Orchestra of the USRR
12. Ukraine	“Time to go crazy / Take you down” – Rishi & Harshii / Daniel Pemberton	“Vogue” – Madonna
13. United States	Piano Concerto No 2 in G minor Op. 22 Presto” – Pascal Roge & Royal Symphony Orchestra	“Tumba” - Angeliqve Kidjo
14. Uzbekistan	“I will not die” - Ingrid Kup	“A Visit from the Zoo, The end Begins” – Safri Duo, Gerard K. Marino

*MVW – in italic

Source: Adapted from FIG (2016)

Table 4

Use of North American Music (NAM)* and Music from Other Nationality (MON) in RG group routines of the RIO2016 Olympic Games.

	Country	Apparatus	
		5 Ribbons	Hoops+Clubs
1.	Belarus	MON	NAM
2.	Brazil	MON	MON
3.	Bulgaria	MON	NAM
4.	China	NAM	NAM

5. Spain	MON	MON
6. Germany	MON	MON
7. Greece	MON	MON
8. Israel	NAM	MON
9. Italy	MON	MON
10. Japan	MON	NAM
11. Russia	MON	MON
12. Ukraine	MON	NAM
13. United States	NAM	NAM
14. Uzbekistan	NAM	NAM

* NAM – in italic

As the results were presented by routine type (single or group), the analyses will be presented in the same way.

Individual Routines

Table 5 – Profile of the music (MVW and IM), by apparatus, of individual routines at the RIO2016 Olympic Games

	Hoop	Ball	Ribbon	Clubs	Total	%
Music with voice and words	4	8	8	3	23	22,11
Instrumental Music	22	18	18	23	81	77,88

Table 6

Type of the music (NAM and MON), by apparatus, of individual routines at the RIO2016 Olympic Games.

	Hoop	Ball	Ribbon	Clubs	TOTAL	%
North-American Music	7	10	8	7	32	30,76
Music from Other Nationalities	19	16	18	19	72	69,23

Group Routines

Table 7

Profile of the songs (by apparatus) of all the finalist routines at the Rio 2016 Olympic Games.

	5 Ribbons	Hoops+Clubs	Total	%
Music with voice and words	5	6	11	39,28
Instrumental music	9	8	17	60,71

Table 8

Type of the music (NAM and MON), by apparatus, of group routines at the RIO2016 Olympic Games.

	5 Ribbons	Hoops+Clubs	TOTAL	%
North-American Music	4	8	12	42,85
Music from Other Nationalities	10	6	16	57,14

DISCUSSION AND DATA ANALYSIS

In our analysis, we identified that North American songs appear less frequently than songs from other countries, both in IM and MVW. However, if we consider that, of the MVW, 10% correspond to North American songs and 11% to other nationalities, we can conclude that the North American influence is great, since among the MON, one can find songs of different cultures, continents and countries, while in the 10% of songs that are North American, all are from the United States.

Considering only the nationality of songs, we can note that North American music (IM and MVW) reach a sum of 27.7% of songs, regarded as an expressively high number.

In analyzing these data, we can note that, even with the changes of the CoP (2013-2016) regarding MVW, the individual series of gymnasts at the RIO2016 Olympic Games presented a predominance of IM. However, at least one routines of all the gymnasts presents MVW, which suggests that this change in the Code of Points was well accepted by gymnasts and coaches of different nationalities and continents. Only three (3) gymnasts did not use any MVW in their routines.

Out off 104 songs analyzed, 7.69% correspond to North American MVW; 14.4% correspond to Non-North American MVW; 20.1% correspond to North American IM and 57.6% correspond to Non-American IM.

In the group routines, analyzing the 28 songs, we can note that 17.8% correspond to North American MVW; 21.4%

correspond to MVW of Other Nationalities; 21.4% are North American IM and 39.2% are IM of Other Nationalities.

Moreover, we note that IM of Other Nationalities have predominance in these routines. However, North American music still has great influence in the choice of gymnasts and coaches, presenting a significant incidence.

Instrumental music continues to be widely used, but at least one group routines of all countries is executed with MVW, in line with the orientation provided by the CoP, which allows for only one of the two routines to be executed with MVW. Only three (3) countries (Belarus, Bulgaria, and Greece), among the 14 that participated in the competition, used only instrumental music in their routines.

In regard to the use of IM and MVW, in an analysis carried out in 2014 with high-performance Brazilian RG gymnasts, in individual routines, and in junior and adult teams, Oliveira et al. (2015) showed that most gymnasts adopted the change in the code regarding the use of MVW. In this same research, a prevalence of international music was identified in individual routines to the detriment of national music, while in group routines there is a greater appreciation of national music.

Notes about music with voice and words in individual and group competitions

We verified through the data presented in table 1 that almost all of the gymnasts took advantage of the new resource regarding MVW, given that the CoP only allows $\frac{1}{4}$ or 25% of routines to use it (one

out of the four routines in the competition), a value very close to that obtained in the sample, which was 22.11%.

In the group competitions, the data in table 3 demonstrated the same proximity, for practically 40% of the routines had MVW, given that CoP outlines that one out of the two group routines, or 50%, may use this resource.

This fact may be due to countless reasons. To better understand them, it would be necessary to conduct new research of an essentially qualitative nature, with the coaches and gymnasts that represent these delegations. However, as researchers in the area, former gymnasts and/or coaches, and participants in this edition of the RIO 2016 Olympic Games (as volunteers or spectators), we can bring a few hypotheses that may have influenced the choice of songs to be sung or music with voice and words (MVW):

- to demonstrate adhesion to this new norm of the CoP, as a political position of institutional alignment;
- to demonstrate satisfaction with this norm, given that some delegations and coaches had been making this request to the FIG RG Technical Committee;
- to increase the motivation of gymnasts during trainings and the execution of routines in competitions, merely due to the fact that she will be experiencing something new, or because the "excitement" with MVW is greater, or even because she might have participated in choosing the song (the feeling of owning the decision made is a highly motivational factor), something that unfortunately is uncommon in this discipline;
- harmony with an adolescent and youth tendency (age range of the gymnasts), who have been consuming music at an increasing rate, as a habit in their day-to-day, whether to go out, to rest, to hang out with friends, have fun at night clubs, to pass the time in transit, or in routine activities. A habit facilitated by new electro-electronic technology (celular phones, iPads, tablets or microcomputers) and digital technology

(websites such as YouTube, music Apps - online or not, etc.);

- to promote a greater involvement of the public, especially in the case of more well-known music or music "of the masses". It is worth noting, as pointed out in chart 1, that some songs were international "classics", including some of past decades (but known by many generations), of bands or singers such as Queen, Madonna, Cindy Lauper, Michael Jackson, among others. At the start of these songs, the public would generally become excited (they would dance, clap or sing), which might, consequently, also motivate the gymnast and sensitize the jury;
- to reach the jury's subjectivity, whether directly or indirectly, specially when the chosen music is popular, of past generations (and might, therefore, have played a part in their lives), and immersive ("upbeat").

So, choosing the music of the routines is very important, since it will promote entertainment and "interaction" with the public and judges. In Olympic and world games, for example, internationally known songs can attract more applause, animation, incentives, etc., and, in addition, reach the unconscious minds of spectators.

Notes about North American music and its influence in the contemporary world

Independent of whether the songs used by the gymnasts (individual) or teams (group) in their routines were IM or MVW, a strong influence from North American music was verified, as demonstrated in tables 2 and 4.

Nowadays, North-American music is the most played worldwide. Sablosky (1994) attributes this to the country's great cultural diversity and to the fact that English is one of the most widely spoken and broadcast languages around the world, contributing, thus, to the dissemination of North-American music.

Authors such as Trotta (2005) and Junior (2006) bring the idea that, over the years, music has become an artistic product made to meet the needs of the

entertainment, poetics, and aesthetics market of popular culture. In other words, the use of North American music may end up becoming an interesting tool in the elaboration of routines, due to its value in regard to the entertainment of the public and the motivation of the gymnast herself (if she enjoys the genre), demonstrating the choice of songs to be a relevant criterium during the development of the exercise.

According to Brittos & de Oliveira (2005, p. 32), the beginning of the U.S. domain in the music market took place due to the emergence of music-oriented television networks (such as MTV in 1981), the emergence of CDs (1996), and the launch of MP3 in 1999, means of musical promotion created by North Americans, turning the country into a true music industry and music media conglomerate, a huge success in the "appropriation of the incredible localized creativity and from the roots of all musicians". These findings are confirmed by what we experience in our day-to-day, diagnosing the expansion of the North American music market in a variety of social sectors, among which is sports. This presence inundates our day-to-day, when we watch sport competitions of different kinds and in different countries, be they as part of the execution of competitions in different disciplines (as is the case with Artistic Gymnastics, Rhythmic Gymnastics, Acrobatic Gymnastics, Figure Skating, etc.), or during breaks and time requests of different competitions (Track and Field, Basketball, Volleyball, etc.), as for creation of an ambience in sporting events, more commonly known as "background music" (X-Games, Winter Games, etc.), and even in opening and closing ceremonies of sporting events (either of a single or several sports - such as the Olympic Games).

Sablosky (1994) points that North American music is the largest and most powerful spokesperson of its population. In addition to the character of entertainment, this voice presents facts and

cultural elements of the country, which, in turn, are transmitted to the entire world.

Junior (2006) defines some important aspects regarding massive popular music, which aligns itself with the artistic concepts brought by sports and that became more evident in the past few years with the permission within the Code of Points to use MVC in routines.

According to Trotta (2005), the consolidation of popular music as the main form of selling records contributed to settle music as a commodity, that is, a product. It is an art form produced and disseminated by certain agents and consumed under certain conditions through a system of compensatory changes in favor of these producers. Therefore, a product meant to be consumed, including in sports.

CONCLUSIONS

The Rhythmic Gymnastics Code of Points (CoP), 2013-2016, was a milestone in the history of this discipline because it was the first to allow vocal music (with instruments or voice) in the routines. That is, after a period of about 40 years, a period of non-exclusivity of instrumental music in the gymnasts' routines begins.

The RIO 2016 Olympic Games was the stage that showed this change, demonstrating its impact on the best world teams.

Thus, this study, which aimed to analyze the impact of this change in the first version of the Olympic Games (OG) that succeeded it, found that this impact was relevant and of high incidence.

The sample comprised of 26 individual athletes and 14 group teams, from the Rhythmic Gymnastics discipline, participants of the RIO 2016 Olympic Games. We analyzed, within a total of 132 routines, the impact of the change in the last cycle of the CoP (2013-2016), regarding MVW.

The documentary sources used did not allow us to identify the reasons why trainers or coaches incorporated this change; we could not identify the reasons

why North American songs were so used in their clear majority by European countries either. These aspects generate concerns for further studies, since only few assumptions could be raised.

There is a variety of reasons that might have led the delegations to adhere to this new norm of the CoP, but a few hypotheses were raised, related to: political aspects (delegations and FIG), motivational aspects (for gymnasts – young and who appreciate music that is sung on a daily basis, and may choose it), to the involvement of the public and the jury.

We conclude that most gymnasts and teams used this new rule of the CoP, and only 3 individual athletes and 3 countries did not. This change was effectively incorporated in delegations of world prominence, sparking a convergence of interests that may still exist between judges, coaches, and members of the Technical Committee of the GR of FIG.

In this process of identifying the impact of this change, the high incidence of North American music (with voice and word or instrumental only) excelled, played by different countries and continents – mostly European ones.

This study brings important evidences to RG, especially with regard to the changes proposed by the technical committee of this discipline (CoP), and its acceptance for the teams of greater respectability and international prominence. Just as it brings new possibilities of new studies about typology of the songs and the reasons that underpin the technical choices of the coaches

REFERENCES

Ávila-Carvalho, L., Klentrou, P., & Lebre, E. (2012). Handling, Throws, Catches and Collaborations in Elite Group Rhythmic Gymnastics. *Science of Gymnastics Journal*, 4(3), 37-47. Retrieved from: <https://www.fsp.unilj.si/en/research/scientific-magazines/science-of-gymnastics/previous-issues/2012102209114244/>

Ávila-Carvalho, L., Leandro, C., & Lebre, E. (2014). The content of rhythmic gymnastics routines. In: Schiavon, L.M., Heinen, T., Bortoleto, M.A.C., Nunomura, M., & Toledo, E. *High Performance Gymnastics*. Hildesheim: Arete Verlag.

Bobo, M., & Sierra, E. (1998). *Ximnasia Rítmica Deportiva-Adestramento e competición*. Santiago de Compostela: Lea.

Bodo-Schmid, A. (1985). *Gimnasia Rítmica Deportiva*. Barcelona: Hispano Europea.

Brittos, V. C., & de Oliveira, A. P. (2005). Processos midiáticos musicais, mercado e alternativas. *Comunicação Mídia e Consumo*, 2(5),31-63. doi:<http://dx.doi.org/10.18568/cmc.v2i5.47>.

FIG - Fédération Internationale de Gymnastique (2013). *Code of points: Rhythmic Gymnastic 2013-2016*. Lausanne: FIG.

FIG - Fédération Internationale de Gymnastique (2016). Lausanne: FIG. Available from: <http://www.fig-gymnastics.com>

FIG - Fédération Internationale de Gymnastique (2018). Lausanne: FIG. Available from: <http://www.fig-gymnastics.com>

Gerhardt, T.E., & Silveira, D.T. (Org.) (2009). *Métodos de Pesquisa*. Universidade Aberta do Brasil – UAB/UFRGS e Curso de Graduação Tecnológica – Porto Alegre: Editora da UFRGS.

Junior, J.J. (2006). Música popular massiva e gêneros musicais: produção e consumo da canção na mídia. *Comunicação, mídia e consumo*, 3(7), 31-47. doi:<http://dx.doi.org/10.18568/cmc.v3i7.69>.

Heins, M. (1978). *Gimnasia rítmica deportiva para niñas*. La Habana. Cuba: Pueblo y Educación.

Kridel, C. (2017). *An Introduction to Documentary Research*. American Educational Research Association. Retrieved from: www.aera.net.

Langlade A., & Langlade N.R. (1970). *Teoria General de la Gimnasia*. Buenos Aires: Editorial Stadium.

Leandro, C. (2016). *Success in rhythmic gymnastics competition: study of evaluation and performance variables in individual routines* (Doctoral dissertation).

Lisitskaya, T. (1995). *Gimnasia Rítmica*. Barcelona: Paidotribo.

Lourenço, M.R.A. (2010). O inconstante código de pontuação na ginástica rítmica. In: Paoliello E. & Toledo, E. (org). *Possibilidades da ginástica rítmica* (pp.111-142). Barueri: Phorte.

Morais, C. (2005). *Descrição, análise e interpretação de informação quantitativa: escalas de medida, estatística descritiva e inferência estatística*. Instituto Politécnico de Bragança, Escola Superior de Educação. Retrieved from: <http://www.ipb.pt/~cmmm/conteudos/estdes cr.pdf>.

Oliveira, M. H., Toledo, E., Carbinatto, M. V. & Antualpa, K. F. (2015). Observações das determinações do Código de Pontuação na escolha das músicas de ginastas brasileiras de ginástica rítmica. In: IV Seminário Internacional de Ginástica Artística e Rítmica de Competição - IV SIGARC, 2015, São Paulo. *Revista Brasileira de Educação Física e Esporte*, 29, 54-54.

Robeva, N. & Rankélova, M. (1991). *Escola de Campeãs – Ginástica Rítmica Desportiva* (Geraldo de Moura, Trans.). São Paulo: Ícone.

Sablosky, L. (1994). *A música norte-americana* (Clóvis Marques, Trans.). Rio de Janeiro: Jorge Zahar Ed.

Sborquia, S.P. (2008). Construção coreográfica: o processo criativo e o saber estético. In: Paoliello, E. (Org.). *Ginástica Geral: experiências e reflexões* (pp. 147-165). São Paulo: Phorte.

Toledo E. (2010). Estética e beleza na ginástica rítmica. In: Paoliello, E. & Toledo, E.,(org). *Possibilidades da ginástica rítmica* (pp.19-44). Barueri: Phorte.

Toledo, E., & Antualpa, K. (2016). The appreciation of artistic aspects of the Code of Points in rhythmic gymnastics: an

analysis of the last three decades. *Revista Brasileira de Educação Física e Esporte*, 30(1), 119-131. doi: <http://dx.doi.org/10.1590/1807-55092016000100119>.

Trotta, F. (2005). Música e mercado: a força das classificações. *Contemporânea Revista de Comunicação e Cultura*, 3(2), 181-196. doi: <http://dx.doi.org/10.9771/1809-9386contemporanea.v3i2.3459>.

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