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# The Structure of Musical Preferences of Youth: Cross-cultural Perspective

## Struktura glasbenih preferenc mladostnikov: medkulturni vidik

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### IZVLEČEK

Namen raziskave je bil raziskati razlike v strukturi glasbenih preferenc med slovenskimi in hrvaškimi študenti. Vzorec je zajemal 369 študentov iz Slovenije in 371 študentov iz Hrvaške. Rezultati kažejo, da obstajajo pomembne razlike v glasbenih preferencah med slovenskimi in hrvaškimi študenti. Prav tako so se potrdile razlike glede na spol, starost in študijski program.

### ABSTRACT

The aim of this study was to explore the differences in musical preferences between Slovene and Croatian students. The sample consisted of 369 students from Slovenia and 371 students from Croatia. The results show that there are significant differences in musical preferences between Slovene and Croatian students. Furthermore, differences with regard to gender, age and study program were confirmed.

## Introduction

Music has an important place in everyday life. It fulfills various physical, cognitive, emotional and social functions. Music is listened to in different contexts, in different

places and for different purposes. People listen to music for entertainment and relaxation, as a way of identity formation or expression of attitudes and values, and as a valuable artistic experience.<sup>1</sup>

Unlike musical tastes, which represent relatively steady, long-term behavior and appreciation, musical preferences are short-term expressions of appreciation or liking. They represent a very complex phenomenon, since they are formed under the influence of a large number of different factors. Several theoretical frameworks address the issue of variables affecting musical preferences. LeBlanc's interactive theory of music preferences<sup>2</sup> shows the hierarchy of variables affecting music preferences, while the reciprocal feedback model of music processing<sup>3</sup> focuses on the four major influences on musical preferences: music, situations and contexts of listening, reaction to music and listener.<sup>4</sup> The authors of the revised reciprocal feedback model of music processing<sup>5</sup> add to those influences the imagination as the cognitive foundation of musical perception and production.

By summarizing the findings of the aforementioned models, it is possible to conclude that the greatest number of factors affecting musical preferences mainly refer to the characteristics of music and the characteristics of listeners, while others focus on cognitive and emotional factors, physiological excitement and social and cultural factors.<sup>6</sup>

There are a large number of researches that explore the association of the aforementioned factors with listeners' musical preferences.<sup>7</sup> The most commonly explored characteristics of listeners influencing music preferences are socioeconomic status, gender, age, personality traits and music lessons.

In regard to nationality and culture, to date, only a few studies have explored this topic.<sup>8</sup> The most extensive study, including 47 countries, was conducted in 2017.<sup>9</sup> The results showed that even though the nationality, generally speaking, was not found to be a significant predictor of musical preferences,<sup>10</sup> there were some interesting differences in

1 Snježana Dobrota and Ina Reić Ercegovac, *Zašto volimo ono što slušamo: glazbeno-pedagoški i psihologijski aspekti glazbenih preferencija* (Split: Filozofski fakultet Sveučilišta u Splitu, 2016).

2 Albert LeBlanc, "An Interactive Theory of Music Preference," *Journal of Music Therapy* 29 (1982), 28–45.

3 David J. Hargreaves, Dorothy Miell and Raymond MacDonald, "How Do People Communicate Using Music?" in *Musical Communication*, eds. Dorothy Miell, Raymond MacDonald and David J. Hargreaves (Oxford: Oxford University Press, 2005), 1–25.

4 David J. Hargreaves, Jonathan James Hargreaves and Adrian C. North, "Imagination and Creativity in Music Listening," in *Musical Imaginations: Multidisciplinary Perspectives on Creativity, Performance and Perception*, eds. David J. Hargreaves, Dorothy Miell and Raymond MacDonald (Oxford: Oxford University Press, 2012), 156–172.

5 Ibid.

6 Dobrota and Reić Ercegovac, *Zašto volimo ono što slušamo: glazbeno-pedagoški i psihologijski aspekti glazbenih preferencija*.

7 Snježana Dobrota and Ina Reić Ercegovac, "Music Preferences with Regard to Music Education, Informal Influences and Familiarity of Music Amongst Young People in Croatia," *British Journal of Music Education* 34, 1 (2017): 41–55; Peter J. Rentfrow, Lewis R. Goldberg and Daniel J. Levitin, "The Structure of Musical Preferences: A Five-Factor Model," *Journal of Personality and Social Psychology* 100 (2011): 1139–1157.

8 Carlos R. Abril and Patricia J. Flowers, "Attention, Preference, and Identity in Music Listening by Middle School Students of Different Linguistic Backgrounds," *Journal of Research in Music Education* 55, 3 (2007): 204–219; Karen A. Niedermeyer, "The Effects of Nationality and Educational Background on World Music Preference of a Sample of Expatriate Students in Singapore," *Research Online*, accessed February 21, 2018, [http://ro.ecu.edu.au/theses\\_hons/795](http://ro.ecu.edu.au/theses_hons/795); Thomas Schäfer, "The Goals and Effects of Music Listening and Their Relationship to the Strength of Music Preference," *PLoS ONE* 11, 3 (2016), accessed February 21, 2018, <https://doi.org/10.1371/journal.pone.0151634>; Markus Schedl, "Investigating Country-Specific Music Preferences and Music Recommendation Algorithms with the LFM-1b Dataset," *International Journal in Multimedia Information Retrieval* 6, 1 (2017), accessed February 21, 2018, <https://doi.org/10.1007/s13735-017-0118-y>.

9 Schedl, "Investigating Country-Specific Music Preferences."

10 Ibid.; Niedermeyer, "The Effects of Nationality and Educational Background."

the popularity rankings of musical genres.<sup>11</sup> The study showed that in Japan and China, the share of pop music is higher than the share of alternative music; in China, the former comes at the expense of rock and alternative, whereas in Japan, only alternative music seems to be negatively affected. According to Schedl, "Electronic music is consumed to a disproportionately high level in Russia, France, Belarus, Hungary, Romania and Estonia, whereas very little is consumed in South American countries (Brazil, Chile and Argentina), Indonesia and India. Pop music peaks in Japan, China and Indonesia; folk in the United States, Romania, Ireland and Iran. Metal is particularly popular in Finland, Turkey and Bulgaria."<sup>12</sup> Furthermore, the aforementioned study shows that musical taste in Japan, Indonesia, Slovakia, China and Iran is highly different from that of most other countries.

With regard to the relationship between gender and musical preferences, the research results confirm that men and women respond to music in a variety of ways and that men prefer music deprived of romance, while women listen to music that relieves them of a sense of loneliness, improves mood and eliminates worry.<sup>13</sup> Furthermore, Hargreaves, Comber and Colley state that girls, compared to boys, express preferences for a number of genres, which can be explained by the fact that girls have better music education.<sup>14</sup> Similarly, a Slovene study on students' musical preferences showed that classical music is more preferred by girls than boys, because, in general, more girls attend music schools compared to boys.<sup>15</sup> Abeles and Chung also found that women and men prefer different types of music, and that women prefer "softer" genres, such as mainstream pop music, while men prefer more difficult and aggressive genres like rock, heavy rock and rap music.<sup>16</sup> This was confirmed in several Slovene studies on musical preferences among students.<sup>17</sup> Exploring the relationship between preferences for music of different tonalities and tempos and personality traits, Dobrota and Reić Ercegovac found that women, compared to men, show higher preferences for music in general, regardless of tonality and tempo.<sup>18</sup>

Concerning the influence of age on musical preferences, there is a general consensus that the importance of music in men's lives increases to adolescence and then slowly drops.<sup>19</sup> LeBlanc has attempted to explain the general pattern of music preferences throughout life.<sup>20</sup> His concept is based on the "open-earedness" hypothesis, suggested

11 Schedl, "Investigating Country-Specific Music Preferences."

12 Ibid., 79.

13 Peter G. Christenson and Jon Brian Peterson, "Genre and Gender in the Structure of Music Preferences," *Communication Research* 15 (1988): 282–301.

14 David J. Hargreaves, Chris Comber and Ann Colley, "Effects of Age, Gender and Training on Musical Preferences of British Secondary School Students," *Journal of Research in Music Education* 43 (1995): 242–250.

15 Andrej Kosednar, "Glasbene preference prekmurskih in štajerskih petošolcev" (dipl., Univerza v Mariboru, 2012).

16 Harold F. Abeles and Jin W. Chung, "Responses to Music," in *Handbook of Music Psychology*, 2nd ed., ed. Donald A. Hodges (San Antonio: IMR Press, 1996), 285–342.

17 Tjaša Dolinar, "Glasbeni okus mladih in razredne razlike" (mag., Univerza v Ljubljani, 2013); Bojan Kovacič, Diana Horvat and Janja Črčinovič Rozman, "Povezanost glasbenih preferenc mladostnikov z njihovo bralno kulturo in nekaterimi pristočasnimi dejavnostmi," *Glasba v šoli in vrtcu* 1–2 (2013): 21–26; Barbara Sicherl Kafol, Olga Denac and Jerneja Žnidaršič, "Interest of Slovene Students in Listening to Various Musical Genres," *Musico logical Annual* 52, 1 (2016): 189–205; Tadej Vindiš, "Glasbene preference in njihova povezanost s psihosocialnimi značilnostmi mladostnikov" (dipl., Univerza v Mariboru, 2005).

18 Snježana Dobrota and Ina Reić Ercegovac, "The Relationship Between Music Preferences of Different Mode and Tempo and Personality Traits – Implications for Music Pedagogy," *Music Education Research* 17, no. 2 (2015): 234–247.

19 David J. Hargreaves, Adrian C. North and Mark Tarrant, "Musical Preference and Taste in Childhood and Adolescence," in *The Child as Musician: A Handbook of Musical Development*, ed. Gary E. McPherson (New York: Oxford University Press, 2006), 135–154.

20 Albert LeBlanc, "Effect of Maturation/Aging on Music Listening Preference: A Review of the Literature," paper presented at the Ninth National Symposium on Research in Music Behavior, Cannon Beach, Oregon, USA, March 7–9, 1991.

by Hargreaves,<sup>21</sup> which LeBlanc defines as the listener's tolerance for different musical styles, which has been operationalized in the sense of preference. LeBlanc suggests four hypotheses, namely: (1) younger children are more open to different types of music; (2) openness diminishes by the beginning of adolescence; (3) there is a partial reversal of openness as the listener matures from adolescence to young adulthood; (4) the openness decreases as the listener matures and enters older age.<sup>22</sup>

Fung, Lee and Chung explored the influence of age, gender and musical style on the preferences of Hong Kong primary and secondary school students.<sup>23</sup> The results showed that younger students better accept different and unfamiliar music styles, and they show generally higher preferences for all styles compared to older students.

Concerning the participants' study program, the results of the researches largely confirm that music majors, compared to non-music majors, show generally higher musical preferences.<sup>24</sup> Yeoh et al. explored Malaysian music majors and non-majors' music preferences for Malaysian music, pop, rock and Western art music.<sup>25</sup> The results showed that music majors, compared to non-music majors, showed greater preferences for all musical genres. Dobrota and Reić Ercegovac explored the role of music education, characteristics of music and personality traits in the formation of music preferences in a sample of students of social, technical and music study programs.<sup>26</sup> The results showed that the participants with the highest degree of music education likewise prefer music regardless of its characteristics (tempo and tonality), while the other participants exhibit a significantly higher level of preferences for major music with a fast tempo. Examining the relationship between music characteristics and preferences for world music in musicians and non-musicians, Fung noted that musicians prefer music with a complex texture, as opposed to non-musicians, who show a greater preference for music with a moderately complex texture.<sup>27</sup> Furthermore, this research has confirmed that musicians, compared to non-musicians, have significantly higher musical preferences.

Two Slovene studies that compared musical preferences of students in different study courses confirmed significant differences in levels of interest in individual musical genres.<sup>28</sup> Kafol et al. reported that

*rock is most popular with students of natural sciences, followed by students of social sciences and primary education, and the least popular with students of pre-school*

21 David J. Hargreaves, "The Development of Aesthetic Reactions to Music," *Psychology of Music. Special Issue* (1982): 51–54.

22 LeBlanc, "Effect of Maturation/Aging on Music."

23 Chi-Keung V. Fung, Ming Lee and Shun-Wai E. Chung, "Music Style Preferences of Young Students in Hong Kong," *Bulletin of the Council for Research in Music Education* 143 (1999): 50–64.

24 Snježana Dobrota and Ina Reić Ercegovac, "Students' Musical Preferences: The Role of Music Education, Characteristics of Music and Personality Traits," *Croatian Journal of Education* 16, 2 (2014): 363–384; Chi-Keung V. Fung, "Musicians' and Nonmusicians' Preferences for World Musics: Relation to Musical Characteristics and Familiarity," *Journal of Research in Music Education* 44, 1 (1996): 60–83.

25 Miranda P. Yeoh, Rahil Mahyuddin, Minni K. Ang and Mohd Majid Konting, "Music Preferences of Teenage Students in Relation to Listener Psychology and Environmental Influences," *ResearchGate*, accessed November 20, 2017, [https://www.researchgate.net/publication/280942345\\_MUSIC\\_PREFERENCES\\_OF\\_TEENAGE\\_STUDENTS\\_IN\\_RELATION\\_TO\\_LISTENER\\_PSYCHOLOGY\\_AND\\_ENVIRONMENTAL\\_INFLUENCES](https://www.researchgate.net/publication/280942345_MUSIC_PREFERENCES_OF_TEENAGE_STUDENTS_IN_RELATION_TO_LISTENER_PSYCHOLOGY_AND_ENVIRONMENTAL_INFLUENCES).

26 Dobrota and Reić Ercegovac, "Students' Musical Preferences."

27 Fung, "Musicians' and Nonmusicians' Preferences."

28 Sara Bunič, "Glasbeni okus in glasbene preference študentov ljubljanskih fakultet" (dipl. delo, Univerza v Ljubljani, 2013); Kafol, Denac and Žnidaršič, "Interest of Slovene Students in Listening."

*education. Surprisingly, metal is the most popular with students of pre-school education, followed by students of primary education and natural sciences, and least popular with students of social sciences. The biggest interest in techno/house was expressed by students of social sciences and natural sciences, less by students of primary education and least by pre-school education students. The biggest interest in punk was expressed by students of social sciences, followed by students of natural sciences and primary education, the least interested in this genre being pre-school education students. Folk music was the most popular among students of pre-school education and primary education, less among students of natural sciences and the least among those of social sciences.*<sup>29</sup>

## **Method**

### ***Participants and procedure***

The study involved 740 participants, who were students from different faculties in the Republic of Croatia and Slovenia ( $N_{cro} = 371$ ;  $N_{slo} = 369$ ). With regard to gender, 454 female and 286 male participants participated in the survey. The sample was composed of students from different faculties, and they were divided into three groups based on their study programs: the social, technical and artistic fields. There were 383 (51.76%) participants in the social field (teachers' education, pre-school education, pedagogy, psychology, sociology and economics), 220 (29.73%) participants in the technical field (electrical engineering, mechanical engineering, mechatronics and nautics) and 137 (18.51%) participants in the artistic area (music academy, music pedagogy and visual art pedagogy). Participation in the research was voluntary and anonymous, and the research was conducted in a group, in the faculty's classrooms during regular classes. Time for questionnaire filling averaged 30 minutes. In the end, 740 valid questionnaires were collected.

### ***Instruments***

The general data questionnaire included several general questions concerning age, gender and study program.

The questionnaire regarding musical preferences, written for the purposes of this research, included a list of 21 musical genres and three representatives of each genre. Representatives were chosen in preliminary research on the sample of Slovenian students of the Music Academy and music editors at radio stations. Prototype representatives of musical genres are listed in Appendix 1. In order to assess musical preferences for different musical genres, participants had to circle one of five numbers for each genre (1 = strongly dislike; 5 = strongly like).

The factor analysis of the musical genre preferences showed the five-factor structure presented in Table 1.

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<sup>29</sup> Ibid., 196.

MUSICAL GENRES	F1	F2	F3	F4	F5
1. CLASSICAL MUSIC	.63				
2. CROSS OVER	.68				
3. POP				.52	
4. PUNK					.67
5. JAZZ	.71				
6. COUNTRY	.57				
7. RAP/HIP HOP				.71	
8. HEAVY METAL					.75
9. ROCK					.70
10. SOUL FUNK	.68				
11. WORLD MUSIC			.81		
12. ELECTRO				.80	
13. NEW AGE			.83		
14. A CAPPELLA			.61		
15. GOSPEL	.64				
16. EVERGREEN	.70				
17. NATIONAL (CROATIAN OR SLOVENE) POP MUSIC		.83			
18. NATIONAL (CROATIAN OR SLOVENE) ROCK MUSIC					.66
19. NATIONAL (CROATIAN OR SLOVENE) TRADITIONAL MUSIC			.68		
20. POPULAR FOLK MUSIC		.70			
21. BALKAN		.55			
<i>% explained variance</i>	16.9	10.0	12.5	8.2	10.3
<i>M</i>	20.27	8.67	6.50	9.42	11.45
<i>SD</i>	6.82	3.33	4.60	2.99	4.15
<i>Cronbach's α</i>	.81	.64	.76	.57	.72
<i>range</i>	0-34	0-15	0-19	0-15	0-15
<i>average inter-item r</i>	.38	.38	.48	.30	.39

Table 1: Factor structure of the questionnaire regarding musical preferences and psychometric characteristics of the composite results.

Factor 1 was defined by classical music, crossover, jazz, country, soul-funk, gospel and evergreen, and it partly coincides with the *Reflective & Complex* factor of music preferences.<sup>30</sup> Factor 2 was defined by Croatian and Slovene pop music, popular folk music and Balkan music from ex-Yugoslavia. This factor can be called *Slo-Yugo Pop*. Factor 3 was defined by world music, new age, a cappella and Slovene and Croatian traditional music. It is obvious that this factor includes the preferences of different ethno-styles, so it can be called *Traditional and Contemporary Ethno*. Factor 4 was defined by pop, rap/hip-hop and electro. This factor also partly coincides with the

30 Peter J. Rentfrow and Samuel D. Gosling, "The Do Re Mi's of Everyday Life: The Structure and Personality Correlates of Music Preferences," *Journal of Personality and Social Psychology* 84, no. 6 (2003), 1236-1256.

factor of music preferences that Rentfrow and Gosling called *Energetic & Rhythmic*.<sup>31</sup> Factor 5 was defined by punk, heavy metal, rock and national (Slovene and Croatian) rock music. These musical styles correspond to those that Rentfrow and Gosling called *Intense & Rebellious*.<sup>32</sup>

## Results and interpretation

### Are there significant differences in musical preferences between Slovene and Croatian students?

Table 2 shows the results of t-tests for independent samples, which compared the differences in the musical preferences of the Croatian and Slovenian participants.

Dimensions of musical genres	M <sub>CRO</sub>	SD <sub>CRO</sub>	M <sub>SLO</sub>	SD <sub>SLO</sub>	t (df = 738)	p
Reflective & Complex	2.866	1.08	2.937	.848	-1.10	.271
Slo-Yugo Pop	2.892	1.08	2.885	1.14	.081	.935
Traditional and Contemporary Ethno	0.917	1.00	2.388	.734	-22.24	.000
Energetic & Rhythmic	3.265	1.00	3.012	.969	3.469	.000
Intense & Rebellious	2.705	1.15	3.033	.875	-4.291	.000

Table 2: Means (*M*), standard deviations (*SD*), *t*-values and importance of statistical significance for the five dimensions of musical genres between Slovene (*SLO*) and Croatian (*CRO*) students.

As the table shows, there are significant differences in three out of five dimensions of musical genres, in so-called Traditional and Contemporary Ethno, Energetic & Rhythmic and the Intense & Rebellious style. The most obvious difference can be observed in the Traditional and Contemporary Ethno style, which is far more preferred by Slovene students than by Croatian students. It is presumed that the latter result reflects mainly high appreciation for a cappella music among Slovenes, which is included in this dimension and became very popular in the last five years. Also, the Intense & Rebellious style is more preferred by Slovene students. These results coincide only partially with other Slovene studies on musical preferences. In the study conducted by Kafol, Denac and Žnidaršič, rock music was the second most preferred musical genre, but metal and punk, on the other hand, were among the least preferred genres.<sup>33</sup> Similar results were obtained in the study by Vindiš, where the most preferred musical style

<sup>31</sup> Ibid.

<sup>32</sup> Ibid.

<sup>33</sup> Kafol, Denac and Žnidaršič, "Interest of Slovene Students in Listening."

was rock, followed by pop and then, interestingly, classical music.<sup>34</sup> The Energetic & Rhythmic style was more preferred by Croatian students than by Slovene students.

According to this study’s results, significant differences in music preferences between Croatian and Slovene students can be confirmed (Figure 1).

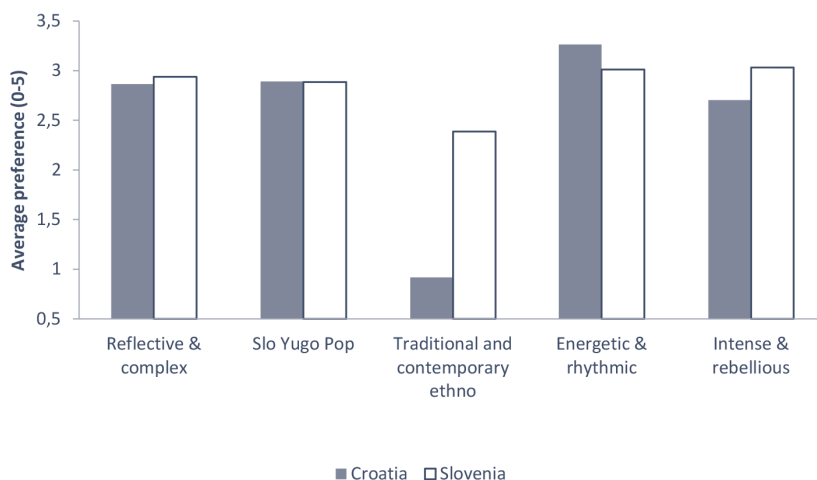


Figure 1: Musical preferences for different dimensions of musical genres.

Musical Genres	$M_{CRO}$	$SD_{CRO}$	$M_{SLO}$	$SD_{SLO}$	$t$ ( $df = 738$ )	$p$
1. CLASSICAL MUSIC	3.36	1.23	3.17	1.37	1.96	.050
2. CROSS OVER	3.35	1.39	3.11	1.20	2.46	.014
3. POP	3.43	1.33	3.33	1.16	1.09	.274
4. PUNK	1.96	1.70	2.21	1.19	-2.37	.018
5. JAZZ	2.81	1.65	3.10	1.33	-2.59	.010
6. COUNTRY	2.68	1.57	2.75	1.08	-0.63	.530
7. RAP/HIP HOP	2.95	1.48	2.73	1.26	2.21	.027
8. HEAVY METAL	2.16	1.60	2.26	1.38	-0.86	.388
9. ROCK	3.81	1.34	3.85	1.21	-0.46	.644
10. SOUL FUNK	2.75	1.76	2.77	1.23	-0.18	.854
11. WORLD MUSIC	0.71	1.35	2.06	1.02	-14.57	.000
12. ELECTRO	3.41	1.44	2.99	1.41	4.03	.000
13. NEW AGE	0.63	1.26	1.97	0.96	-15.96	.000

34 Vindiš, "Glasbene preference in njihova povezanost."



14. A CAPPELLA	1.63	1.94	3.38	1.28	-14.43	.000
15. GOSPEL	1.65	1.74	2.20	1.20	-4.96	.000
16. EVERGREEN	3.39	1.56	3.42	1.24	-0.20	.838
17. NATIONAL (CROATIAN OR SLOVENE) POP MUSIC	2.81	1.40	2.96	1.29	-1.51	.131
18. NATIONAL (CROATIAN OR SLOVENE) ROCK MUSIC	2.89	1.46	3.77	1.10	-9.278	.000
19. TRADITIONAL NATIONAL (CROATIAN OR SLOVENE) MUSIC	0.69	1.27	2.16	1.05	-16.83	.000
20. POPULAR FOLK MUSIC	3.67	1.31	2.89	1.42	7.710	.000
21. BALKAN MUSIC	2.20	1.62	2.79	1.51	-5.09	.000

Table 3: Means ( $M$ ), standard deviations ( $SD$ ),  $t$ -values and importance of statistical significance for the specific musical genres between Slovene (SLO) and Croatian (CRO) students.

In order to explore the differences in musical preferences between Slovene and Croatian students more profoundly, the differences in specific musical genres were also examined. As Table 3 shows, Slovene students have higher musical preferences for world music, new age, a cappella, gospel, Slovene rock, Slovene traditional and Balkan music compared to Croatian students. Croatian students, on the other hand, have higher musical preferences compared to Slovenes for electro and popular folk music (*klape*).

#### Are there significant differences in preferences for musical styles between female and male students in Slovenia and Croatia?

	$M_m$	$SD_m$	$M_w$	$SD_w$	$t(df = 738)$	$p$
Reflective & Complex	2.679	.989	3.034	.939	-4.833	.000
Slo Yugo Pop	2.680	1.107	3.020	1.090	-4.084	.000
Traditional and Contemporary Ethno	1.526	1.166	1.688	1.136	-5.07	.612
Energetic & Rhythmic	3.139	1.008	3.139	.988	-.001	.999
Intense & Rebellious	3.070	.986	2.730	1.048	4.338	.000

Table 4: Means ( $M$ ), standard deviations ( $SD$ ) and values of independent samples  $t$ -test ( $t$ ) in dimensions of musical genres between men ( $m$ ) and women ( $w$ ).

As is evident from the table, significant differences in three out of five categories of musical styles concerning gender are confirmed. As reported by Dobrota and Reić Ercegovac, women in general express higher and broader preferences for music, as can also be observed also from these results.<sup>35</sup> This was also confirmed in other previous

<sup>35</sup> Dobrota and Reić Ercegovac, "The Relationship Between Music Preferences."

studies (Birch, 1962; Crowther and Durkin, 1982; Hargreaves, Comber and Colley, 1995; Long, 1971; Winold, 1963).<sup>36</sup> The only exception was in the Intense & Rebellious style, which was more preferred by men. The latter finding accords with the study by Abeles and Chung, who reported that women prefer more “soft” music styles, for example, mainstream pop music, while men prefer more “hard,” “aggressive” music styles, such as rock, heavy metal and rap music.<sup>37</sup> In addition, several Slovene studies have confirmed a similar picture about music preference differences between men and women.<sup>38</sup>

The Reflective & Complex style is more preferred by women than by men. This accords with the majority of previous studies, which report that women, because of more frequent formal music education, form preferences for more complex (especially classical) music.<sup>39</sup> In addition, popular national music is more preferred by women. This category includes mainstream pop national music, which accords with Abeles and Chung’s findings.<sup>40</sup>

**Are there differences in music preferences between students in different study programs?**

In order to examine the effects of students’ study programs on musical preferences, several ANOVAs were conducted. The results are shown in Table 5.

		<i>M</i>	<i>F</i> ( <i>df</i> = 2,732)	<i>p</i>
Reflective & Complex	Social	2.86	58.62	.000
	Technical	2.53		
	Art	3.61		
Slo-Yugo Pop	Social	3.15	25.80	.000
	Technical	2.69		
	Art	2.46		
Traditional and Contemporary Ethno	Social	1.59	83.58	.000
	Technical	1.11		
	Art	2.61		
Energetic & Rhythmic	Social	3.26	26.52	.000
	Technical	3.26		
	Art	2.59		
Intense & Rebellious	Social	2.71	9.126	.000
	Technical	2.99		
	Art	3.09		

*Table 5: Dimensions of musical preferences for different students’ study programs (results of one-way ANOVAs).*

36 Ibid.

37 Abeles and Chung, “Responses to Music.”

38 Dolinar, “Glasbeni okus mladih in razredne razlike”; Kovačič, Horvat and Črčinovič Rozman, “Povezanost glasbenih preferenc mladostnikov”; Kafol, Denac and Žnidaršič, “Interest of Slovene Students in Listening”; Vindiš, “Glasbene preference in njihova povezanost.”

39 Kosednar, “Glasbene preference prekmurskih in štajerskih petošolcev.”

40 Abeles and Chung, “Responses to Music.”

According to these results (see Table 5), there are significant differences in musical preferences between students of different study programs in all five categories of musical styles. Students who study arts (music and arts), in comparison to students who study social and technical studies, have considerably higher musical preferences for the Reflective & Complex style, for Traditional and Contemporary Ethno and, interestingly, for Intense & Rebellious music. Students who study social studies, in comparison to those in technical and art studies, have higher musical preferences for Slo-Yugo Pop. Students from technical faculties have the same musical preferences as students from humanistic studies in the Energetic & Rhythmic style, but in general their musical preferences are the lowest. Differences in musical preferences were also confirmed in several previous studies.<sup>41</sup> Considering different study programs, the main issue of the previous studies was to explore the role of music education in musical preferences. Music education has a positive effect on the degree of liking for all musical genres.<sup>42</sup> Musical training and experience have an important positive impact on musical preferences in general (see Greer, Dorow and Hanser; Gregory; Moore and Johnson; Palmquist; Yin).<sup>43</sup>

Table 6 shows the results of regression analysis with musical preferences variables as criterion variables.

	Reflective & Complex	Slo-Yugo Pop	Traditional and Contemporary Ethno	Energetic & Rhythmic	Intense & Rebellious
country	-.03	.04	.60*	-.08*	.14*
gender	.26*	.08*	.08*	-.06	-.14*
age	.19*	-.07	.10*	-.16*	.04
study program	.24*	-.23*	.11*	-.19*	.08*
<i>R</i>	.36	.28	.65	.28	.25
<i>R</i> <sup>2</sup>	.13	.08	.42	.08	.06
<i>F</i> ( <i>df</i> )	26.71 (4,735)	15.25 (4,735)	132.98 (4,735)	15.49 (4,735)	11.78 (4,735)

Table 6: Results of standard regression analyses with musical preferences as the criterion.

In order to investigate specific contributions of nationality, gender, age and study program, standard regression analyses with musical preferences as criteria were conducted. It can be concluded that the selected predictors explained 42% of variance in Traditional and Contemporary Ethno, 13% of variance for the Reflective & Complex style, 8% of variance for Slo-Yugo Pop and an equal amount for the Energetic & Rhythmic style, as well as 6% of variance for the Intense & Rebellious style.

The results show that nationality (Slovene or Croatian) is linked with the Traditional and Contemporary Ethno, Intense & Rebellious style and Energetic & Rhythmic style.

41 Bunič, "Glasbeni okus in glasbene preference"; Dobrota and Reić Ercegovac, "Students' Musical Preferences"; Kafol, Denac and Žnidaršič, "Interest of Slovene Students in Listening."

42 Dobrota and Reić Ercegovac, "Students' Musical Preferences."

43 Ibid.

Gender correlated with all musical styles (especially with the Reflective & Complex style), except for the Energetic & Rhythmic style. Age was linked to the Reflective & Complex music style, but also to Traditional and Contemporary Ethno and to the Energetic & Rhythmic style. Also, study programs correlated significantly with all five music styles, especially with the Reflective & Complex style and Slo-Yugo Pop.

## Conclusions

The main objective of the study was to shed light on the impact of nationality/culture in musical preferences. There are only a few studies, to date, that have explored musical preferences through the lens of nationality and culture.<sup>44</sup> Therefore, the differences in musical preferences in Slovene and Croatian students were explored. Furthermore, the study sought to examine the impact of gender, age and study program on musical preferences.

With regard to nationality, the differences between Slovene and Croatian students were confirmed. Slovene students showed higher preferences for Traditional and Contemporary Ethno and for the Intense & Rebellious style. On the other hand, the Energetic & Rhythmic style was more preferred by Croatian students. Furthermore, the research revealed some interesting findings concerning nationality differences. The results indicate that popular folk music, traditional music and Balkan music are more preferred by Slovenes, and national rock music is more preferred by Croats. This picture, in the authors' opinion, reflects the state of media and the cultural differences between Croatia and Slovenia. On Slovene national television, the majority of performed music in TV shows with the highest ratings promotes popular folk music. Slovenes, as a nation, share a kind of nostalgic attitude toward music. Tradition is valued very highly, which is by itself very admirable; however, this trend results, unfortunately, in the rejection of contemporary national music. The latter is evident from the amount of national music on radio playlists. On Croatian radio stations, the majority of played music is Croatian; however, in Slovenia, there is a huge problem with the share of Slovene music played on Slovene radio stations. Radio playlists in Slovenian and Croatian radio stations indicate that contemporary popular national music is far more valued by Croats than by Slovenes. These results are in line with those obtained by Schedl.<sup>45</sup> One of the important reasons for differences in musical preferences in regard to nationality relies on social identification.<sup>46</sup> Previous studies on the impact of nationality on musical preferences show that, in general, nationality is not a significant predictor

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44 Abril and Flowers, "Attention, Preference, and Identity in Music Listening"; Minni K. Ang and Miranda Yeoh, "Music Preferences of Malaysian Students and KBSM Curriculum Implications," *Pertanika Journal of Social Sciences and Humanities* 10, no. 1 (2002), 43–51; Albert LeBlanc, Young C. Jin, Lily Chen-Hafteck, Alda de Jesus Olivera, Sanderi Oosthuysen and Johannella Tafuri, "Tempo Preferences of Young Listeners in Brazil, China, Italy, South Africa and the United States," *Bulletin of the Council for Research in Music Education* 147 (2000/2001), 97–102; Niedermeyer, "The Effects of Nationality and Educational Background"; Schäfer, "The Goals and Effects of Music Listening"; Schedl, "Investigating Country-Specific Music Preferences."

45 Schedl, "Investigating Country-Specific Music Preferences."

46 Abril and Flowers, "Attention, Preference, and Identity in Music Listening."

of musical preferences;<sup>47</sup> nevertheless, there are some interesting differences in the popularity rankings of genres.<sup>48</sup>

As mentioned in the introduction, gender is an important predictor of musical preferences in adolescence. This study shows that there are significant differences in preferences for the Reflective & Complex style and popular national (Slovene or Croatian) music, which are more highly ranked among women than among men. On the other hand, the Intense & Rebellious style is more preferred by men. The results are consistent with previous studies.<sup>49</sup> From these results, it can be also observed that, in general, female students expressed higher preferences for music.<sup>50</sup>

This study shows that age is significantly positively linked to the Reflective & Complex style and to Traditional and Contemporary Ethno, whereas it is negatively linked to the Energetic & Rhythmic style. Study program is linked to all musical styles. It correlates positively with the Reflective & Complex style, Traditional and Contemporary Ethno and the Intense & Rebellious style, and negatively with the Energetic & Rhythmic style and Slo-Yugo Pop.

This study has several strengths. It investigates a topic that, to date, has not gained enough research attention. In addition, this study is a preliminary investigation concerning prototypical songs for each music genre that was conducted on students and music editors of national radio. In the future, it would be interesting to compare musical preferences with regard to nationality/culture in all ex-Yugoslavian countries.

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47 Niedermeyer, "The Effects of Nationality and Educational Background"; Schäfer, "The Goals and Effects of Music Listening."

48 Schedl, "Investigating Country-Specific Music Preferences."

49 Abeles and Chung, "Responses to Music"; Dobrota and Reić Ercegovac, "The Relationship Between Music Preferences"; Dolinar, "Glasbeni okus mladih in razredne razlike"; Kovačič, Horvat and Črčinovič Rozman, "Povezanost glasbenih preferenc mladostnikov"; Kafol, Denac and Žnidaršič, "Interest of Slovene Students in Listening"; Vindiš, "Glasbene preference in njihova povezanost."

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## POVZETEK

Namen naše raziskave je bil proučiti medkulturne razlike v strukturi glasbenih preferenc med slovenskimi in hrvaškimi študenti. Do sedaj so se le redke študije osredotočile na raziskovanje narodnostnega in medkulturnega vidika. Prav tako smo želeli dobiti vpogled v učinke spola, starosti in študijskega programa na glasbene preference. Vzorec je zajemal 369 študentov iz Slovenije in 371 študentov iz Hrvaške. Rezultati so pokazali, da obstajajo pomembne razlike v glasbenih preferencah med slovenskimi in hrvaškimi študenti, kljub temu, da se narodnost ni pokazala kot pomemben napovednik glasbenih preferenc. Slovenski študenti so izražali večje preference za Tradicionalno & Sodobno Etno glasbo ter za Intenzivni & Uporniški stil glasbe. Po drugi strani pa so hrvaški študenti v primerjavi s slovenskimi bolj preferirali Energični & Ritmični stil. Če pogledamo razlike v strukturi glasbenih preferenc podrobneje, lahko vidimo, da imajo slovenski študenti v primerjavi s hrvaškimi raje narodno zabavno glasbo, ljudsko glasbo in Balkan, nacionalna rock glasba pa je bolj preferirana pri

hrvaških študentih. Zdi se, da je tovrstna slika odraz medijskega odnosa do glasbe; slovenski medijski prostor veliko prostora namenja narodno zabavni glasbi, slovenske radijske postaje pa predvajajo veliko zahodnjaške glasbe in glasbe bivših jugoslovanskih narodov. Dočim hrvaški medijski prostor veliko večjo pozornost posveča predvajanju lastne sodobne pop-rock glasbe in je hrvaška nacionalna glasba v medijskem okolju prevladujoča. Spol se je v naši študiji pokazal kot pomemben napovednik glasbenih preferenc; ženske so v primerjavi z moškimi bolj preferirale Refleksivni & Kompleksni stil, moški pa so bolj preferirali Intenzivni & Uporniški stil. Kar se starosti tiče so rezultati pokazali pomembno pozitivno povezanost med leti in Refleksivnim & Kompleksnim stilom ter Tradicionalnim & Sodobnim Etno stilom ter negativno povezanost z Energičnim & Ritmičnim stilom. Študijski program je bil povezan z vsemi glasbenimi stili; pozitivno z Refleksivnim & Kompleksnim stilom, Tradicionalnim in Sodobnim Etnom ter z Intenzivnim & Uporniškim stilom, negativno pa z Energičnim & Ritmičnim stilom in s Slo-Yugo popom.