Personality Correlates of Music Preferences in the Czech Republic

Marek Franěk

Faculty of Informatics and Management, University of Hradec Králové, Czech Republic
marek.franek@uhk.cz

ABSTRACT

This study examines the structure of music preferences in the sample of participants from the Czech Republic (n=521), differences in structure of music preferences among various age groups and the associations between these preferences and certain personality characteristics. The exploratory factor analysis revealed five music preference dimensions. Further analysis addressed the question how music preferences are related to personality characteristics. Preferences for these music dimensions were related to personality dimension of Big-Five personality model. The data confirmed prior research conducted in the United States and revealed certain dissimilarities based on cultural differences.

I. INTRODUCTION

Music preferences are influenced by many factors. A large body of investigations examined associations between music preferences and social identity, age, gender, and various cultural factors. During the last decade researchers also have shown interest in music preferences as an individual difference variable that relates to personality traits. Some evidences have been found that individuals like to listen music that reflects their personality characteristics.

First studies investigated the association between personality traits Extraversion or Psychoticism and a linking of particular musical genres (Dollinger,1993; McCown, Keiser, Mulheam, & Williamson, 1997), or manifestation of behavioral tendency sensation seeking in musical preferences (Little & Zuckerman, 1986). More recently, Rentfrow and Gosling (2003) in their very comprehensive study investigated an association between musical preferences and a wide array of personality dimensions. First, they determined the four major dimensions of music preferences by means of a factor analysis: Reflective and Complex dimension (blues, jazz, classical and folk music), Intense and Rebellious dimension (rock, alternative and heavy metal music), Upbeat and Conventional dimension (country, sound track, religious and pop), and Energetic and Rhythmic dimension (rap/hip-hop, soul/funk, and electronica/dance music).

Next, preferences for these dimensions were related to personality dimensions. For example, preference of Reflective and Complex music is related to Openness, preference of Intense and Rebellious music is associated with Extraversion and Openness, preference of Upbeat and Conventional music is positively related to Extraversion and Agreeableness and negatively to Openness and preference of Energetic and Rhythmic music is associated with Extraversion and Agreeableness.

Rentfrow and Gosling conducted their investigations on a sample of North American undergraduate students. There is a question to what extent these findings can be generalized to other countries or cultures. The next problem is, whether these findings can be generalized also to other age groups, e.g. for middle age individuals. There are some evidences that in other cultures major dimensions of music preference slightly differ to those found in the North American sample. Tekman and Hortacsu (2002) in their study with a sample of Turkish undergraduate students identified five categories of stylistic knowledge: (1) metal, heavy metal, rock, (2) techno, rap, underground, (3) pop, foreign pop, Turkish pop, (4) jazz, blues, classical music, and (5) Turkish folk, Turkish art. The first four categories correspond to the four major dimensions found by Rentfrow and Gosling, whilst the last one reflects cultural differences of Turkey, specifically the existence of traditional folk music.

In contrast, Delsing et al. (2007) in the study conducted in the Netherlands with a sample of adolescents (aged 12-19 years) identified four dimension of music preference, which they labelled Rock, Elite, Urban and Pop/Dance. The difference in a structure of music preference dimensions reflects cultural differences between music culture of American and Dutch young people. Relation between music preferences and personality traits seems be quite similar to the Rentfrow and Gosling's study.

The goal of the present study is to examine the structure of major music preference dimensions and their relations to Big-Five personality traits in a sample selected in the Czech Republic. Further, we will ask the question, whether the findings obtained in investigations of music preference of adolescents and young adults may be also generalized for middle age individuals.

II. METHOD

The sample of 521 respondents took part in the study. They all lived in the Czech Republic. Respondents ranged in ages from 16 to 50 years and their mean age was 31.6 years (median = 29, SD = 10.7). The respondents were contacted and questioned by students of psychology courses from the University of Hradec Králové.

After collecting the data, the sample was divided into the tree age groups: age 16 - 25 (N = 211, mean = 20.6, median = 20, SD = 2.1, 102 females), age 26 - 40 (N = 152, mean = 32.9, median = 33, SD = 4.7, 83 females), and age 41 – 50 (N = 158, mean = 44.9, median = 44, SD = 2.8, 98 females). Socio-cultural differences were chosen as a main criterion for the division into these groups. Members of the oldest subgroup 41 - 50 years grew up in a period where the government, having an official "Cultural Policy", in some respect controlled the domestic scene of popular music and promoted particular musical genres (especially country and brass music), while trying to inhibit others (namely hard rock). Finally, members of the youngest subgroup grew up in total political freedom, with no government restrictions over cultural life.

Music Preference was assessed by the Short Test of Music Preferences (Rentfrow & Gosling, 2003). Since the test was created in the USA, it was necessary to make slight modifications in order to reflect cultural specificity of the Czech Republic. Specifically, musical genres "Brass music" and "Traditional folk music" were added and the genre "Religious" was removed. The test comprises a list of sixteen musical genres: (1) Blues, (2) Jazz, (3) Classical music, (4) Folk, (5) Pop, (6) Pop-rock, (7) Rock, (8) Heavy metal, (9) Rap/Hip-hop, (10) Electronica/dance (house, techno, jungle etc.), (11) Country, (12) Alternative/World music/New Age, (13) Soundtracks, (14) Musical, (15) Traditional folk music, (16) Brass music.

Personality was measured by the Czech version of the NEO Five-Factor Inventory (Costa & McCrae,1992). The test measures five personality traits: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness

III. RESULTS

First, major dimensions of music preferences were examined separately in the three age groups by means of the exploratory factor analysis. In the youngest group aged 16-25 five major music preference dimensions were identified: Reflective and Complex dimension (loaded by blues, jazz, classical, and folk music), Intense and Rebellious dimension (loaded by rock and heavy metal music), Upbeat and Conventional dimension (loaded by pop, pop-rock, soundtracks, and musical), Energetic and Rhythmic dimension (loaded by rap/hip-hop and electronica/dance music), and Traditional Music dimension (loaded by country, traditional folk music, and brass music).

Similarly, in the age group 26-40 years the identical five major music preference dimensions were identified, however, they were loaded by different musical genres in some cases: Reflective and Complex (blues, jazz, and classical music), Intense and Rebellious (rock and heavy metal music), Upbeat and Conventional (pop, pop-rock, soundtracks, musical), Energetic and Rhythmic (rap/hip-hop, electronica/dance, and alternative music), and Traditional Music (country, folk, traditional folk music, and brass music).

In contrast, in the group aged 41-50 certain differences in the structure of music preference dimensions were found. As well as in the two younger age groups, music preference dimensions Reflective and Complex (classical music), Upbeat and Conventional (pop, soundtracks, and musical), and Traditional Music (country, folk, traditional folk music, and brass music) were identified. Further two music preference dimensions were in some respect different - they were labelled Heavy Music (rock, heavy metal music, rap/hip-hop, and electronica/dance) and Elite Music (blues, jazz, and alternative music).

Next analysis addressed the question how music preferences are related to personality characteristics. Preferences for the dimensions of music preferences were related to particular personality dimensions of Big-Five personality traits (see Tab.1).

Preferences for Reflexive and Complex dimension were in all age groups positively associated with Openness, in the age group 41-50 also with Agreeableness.

Table 1. Correlations between personality traits and music preference dimensions. E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness. Marked correlations are significant at the 5 % level.

Music preference dimensions				
Age group 16 - 25 years				
Traits	Reflexive and Complex	Upbeat and Conventional	Energetic and Rhythmic	Intense and Rebellious	Traditional Music
E	0.10	0.19*	0.27*	0.01	-0.10
A	0.09	0.23*	-0.00	-0.03	0.19*
C	0.03	0.28*	-0.13	0.02	0.06
N	0.04	0.21*	-0.04	-0.03	0.15*
O	0.50*	-0.06	-0.15*	0.07	0.33*
Age group 26 - 40 years				
Traits	Reflexive and Complex	Upbeat and Conventional	Energetic and Rhythmic	Intense and Rebellious	Traditional Music
E	0.16	0.16	0.13	0.07	-0.02
A	-0.04	0.17*	-0.09	-0.12	0.18*
C	-0.01	0.03	-0.21*	-0.24*	0.14
N	-0.01	-0.06	-0.06	-0.14	0.04
O	0.41*	-0.09	0.28*	0.08	0.10
Age group 41 - 50 years				
Traits	Reflexive and Complex	Upbeat and Conventional	Heavy Music	Elite Music	Traditional Music
E	0.02	0.00	0.18*	0.03	0.10
A	0.17*	0.16	-0.06	0.19*	0.26*
C	0.17*	0.17*	0.04	0.12	0.08
N	-0.04	0.18*	-0.12	0.03	0.10
O	0.24*	-0.01	0.09	0.28*	0.19*

Preference for Upbeat and Conventional dimension were associated with Extraversion, Agreeableness, Conscientiousness, and Neuroticism in the youngest age group,

while in older age groups only with Agreeableness, (age group 26-40) or Conscientiousness and Neuroticism (age group 41-50).

Certain intergeneration differences were found in preferences for Energetic and Rhythmic dimension. The positive relation to Extraversion (in the age group 26-40 non-significant) was found in all age groups. However, while preferences to this music preference dimension were in the youngest age group associated with Openness negatively, in the group of individuals aged 26-40 was associated positively. Preferences for Intense and Rebellious dimension were negatively associated with Conscientiousness in the age group 26-40 only.

Preferences for the dimension Traditional Music were in all age groups associated with Agreeableness. In addition, in the age groups 16-25 and 41-50 preferences were associated also with Openness, and in the age groups 16-25 with Neuroticism.

Music preference dimension Elite Music, which was identified only the age group 41-50 was related to Agreeableness and Openness and the dimension Heavy Music was related to Extraversion.

IV. CONCLUSION

The goal of this study was to examine the structure of music preferences in the sample of participants from the Czech Republic, differences in structure of music preferences among various age groups and the associations between these preferences and Big-Five personality characteristics. The exploratory factor analysis revealed in younger age groups four music preference dimensions, which are identical with dimension identified in Rentfrow and Gosling's study (2003). In addition, the fifth music preference dimension labelled Traditional music was identified, which is partly loaded by music genres derived from traditional rural folk music. It seems, that this particular dimension of music preferences emerges in countries and cultures, where traditional rural folk music is in some respect still alive.

The study confirmed that consistent patterns of associations between music preferences and personality characteristics emerged in various cultures. Consistently with previous findings from United States and the Netherlands, it was found that preferences for Reflexive and Complex (Elite) dimension were positively associated with Openness. Similarly, preferences for Upbeat and Conventional dimensions were in young individuals positively related to Extraversion, Agreeableness, Conscientiousness, and Neuroticism. Finally, similarities with previous data emerged also in association between preferences for Energetic and Rhythmic dimension and Extraversion.

Theoretical explanation of the associations between personality factors and music preferences is based on the uses and gratification approach (Rosengren, Wenner, & Palmgreen, 1985). According this theory listeners prefer particular kinds of music and musical genres because they dispose with particular personality characteristics that the music satisfied. For example, individuals, who scored high in Openness personality dimension have a desire for variety, novelty, and intellectual stimulation. This desire can be fulfilled by reflexive and complex music. In contrast, Extraverts prefer musical genres that facilitate social interaction with other people.

Finally, our study demonstrated also existence certain intergeneration differences. In brief, the structure of dimensions of music preferences was almost always identical in groups aged 16-25 and 26-40. In the older group aged 41-50 slightly different pattern of structure of dimensions of music preferences revealed, which reflected the influence of gradual cultural and social changes in the Czech society during last three decades.

Although we found many intergenerational similarities in associations between music preferences and personality traits, some differences emerged too. While preference of Energetic and Rhythmic dimension was in the youngest age group negatively associated with Openness, in the age group 26-40 was associated positively. One explanation is that these musical genres already lost their novelty for the youngest age group (see Delsing et al., 2007), because they are nowadays very common part of their everyday musical listening.

Another differences occurred in associations between Intense and Rebellious dimension and Conscientiousness. While in the age group 26-40 preferences of this dimension was negatively associated with Conscientiousness, in the youngest age group there was no any significant association. It is assumed that listening of these musical genres is common for the youngest age group and listening of this music reflect their natural generational defiance, while for the older age group preferences of this music could reflect their personalities, their "rebellious" personality orientation, which is negatively associated with Conscientiousness.

The high positive association between preferences for Traditional Music dimension and Openness in the youngest age group can be explained by a relative novelty of these musical genres for this generation. Older generations were exposed to this music frequently and in addition, for the age group 26-40 these musical genres have some negative connotations associated with the cultural policy of the old regime.

In general, intergeneration differences in associations between music preference dimensions and personality traits are caused by following three phenomena.

(1) It seems that music preference is fixed in late adolescence/early adulthood (North & Hargreaves, 2002). Thus, certain musical genres have a different psychosocial meaning in various generations. (2) Across the life span there are some gradual changes in certain personality traits - scores of Agreeableness and Conscientiousness increase with age, while the score of Openness decrease with age (McCrae et al., 1999). (3) Personal needs and habits are changing across the life span, which is probably reflected also by stability/changes in music preference.

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