# Values, Functions of Music, and Musical Preferences

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## ABSTRACT

One function of music that is recognized cross-culturally is helping shape identity and values. Moreover, values may determine which functions of music people use and which musical styles are suited to serve different functions. This study had three main aims. First, we examined the structure of musical style preferences of a Turkish sample. Second, we examined the relations between value orientations, functions of music and musical preferences. Third, we searched for mediating effects of functions of music that explain the link between values and musical preferences. Two hundred and forty six students of Uludag University in Bursa, Turkey filled a questionnaire in which they were questioned about the importance of 10 functions of music listening, their preferences for 16 musical styles and their endorsement of self-enhancement, self-transcendence, openness-to-change, and conservation values. Musical preferences could be summarized by five underlying dimensions that mainly conformed to those obtained in other countries and in earlier research in Turkey. While self-enhancement values were associated with preference for contemporary styles, self-transcendence values were associated with preferences for sophisticated styles. Sophisticated and intense styles were associated positively with openness-to-change and negatively with conservation. Endorsement of openness-to-change values was associated with intrapersonal and affective and socio-cultural and contemplative functions of music, whereas endorsement of conservation values was negatively associated with these functions. Shaping values, expressing cultural identity, and dancing functions of music had significant mediating roles in the relation between values and musical preferences.

## I. INTRODUCTION

Music is an activity that pervades lives of people not only across age groups, times of day, and situations but also across historical time, geographical location, and cultures. However, the ubiquity of music is coupled with considerable variation in the kinds of music that are preferred and the reasons for listening to music. Musical preference has flourished as a research topic in the last decade. Rentfrow and Gosling's (2003) article about the structure of musical preferences has given impetus to many studies on the underlying structure of musical preferences and associated person characteristics. The study reported in this paper examined the structure of musical preferences and how personal value orientations and functions of music affect these preferences.

Why people listen to music has been a topic of research and discussion both within and outside of psychology (Boer, 2009; Boer & Fischer, 2012; Chamorro-Premuzic & Furnham, 2007; Clayton, 2009; Getz, Chamorro-Premuzic, Roy, & Devroop, 2010; Merriam, 1964; North, Hargreaves, & Hargreaves, 2004; Schäfer & Sedlmeier, 2009, 2010; Ter Bogt, Mulder, Raaijmakers, & Gabhainn, 2010). Although different

researchers give different lists of functions of music, there is a consensus that music serves arousing/energizing, cognitive, emotional, social and cultural functions (Boer & Fischer, 2012; Schäfer & Sedlmeier, 2010). A further question is whether different kinds of music are better suited to fulfill different functions. Researchers have found that personal preferences for musical styles do correlate with how those persons use music (Getz et al., 2010; Schäfer & Sedlmeier, 2009, 2010; Ter Bogt et al., 2010).

Another predictor of musical preference is the values of the listener. Music communicates identity and values of a person (Boer, 2009; Boer et al., 2011; Schäfer & Sedlmeier, 2010), which also facilitates the social bonding function of music. Boer and her colleagues (Boer, 2009; Boer et al., 2011) collected data that supported a model in which music preferences of individuals indicated their personal values and similarity of values resulted in greater interpersonal attraction. Boer et al.'s (2011) findings are rooted in the relation between music preferences and personal values: research showed that value orientations of individuals correlate with their musical preferences (Boer, 2009; Rentfrow & Gosling, 2006; Tekman, Göklü, & Sağlam, 2008). This is to be expected because in order for musical tastes to communicate personal information (Boer et al., 2011) music preferences must be consistent with the personality, social identity, and values of an individual. Rentfrow and Gosling (2006) showed not only that values and music preferences were related but also that observers could make use of this information.

Although both functions of music and values have been subject of research as predictors of music preferences, these two kinds of variables have not been investigated together in previous research. The present study examined the hypotheses that (a) values and functions of music are predictors of music preferences, and (b) functions of music may mediate the relations between values and music preferences. Values are motivational underpinnings of attitudes and behaviors (Schwartz, 2011; Schwartz & Bilsky, 1987); therefore, values are proposed to influence the preferences for specific music styles. Additionally, we argue that the motivational link between values and music preferences can be explained by the functions that music fulfils, because the functional uses of music are behavioral expression of values. In other words, value orientations as motivational forces determine why we listen to music (functional uses), and the reasons why we listen, in turn, influences what kind of music we listen to.

In order to test the hypothesized associations, both the basic values proposed by Schwartz (2011; Schwartz & Bilsky, 1987) and functions of music as measured by the Ratings of Experienced Social, PErsonal and Cultural Themes of music functions (RESPECT-Music) scales (Boer, 2009; Boer et al., in press) were assessed in a sample of students of a Turkish

university. In addition, the students rated their preferences for styles of music including both international and Turkish genres of music.

Although the mediating effect of functions between values and music preferences was of primary interest, there were two other aims that built up to this point: First, a classification of the musical styles into a manageable number of factors was necessary. Recently Rentfrow, Goldberg and Levitin's (2011) proposed five dimensions underlying music preferences, based on a survey of a large sample contacted through the internet. These dimensions are sophisticated (classical, opera, jazz), intense (rock, metal), contemporary (rap, electronic), mellow (pop, soft rock), and unpretentious (country, rock'n'roll). Other studies with both North American and Western European samples (Delsing, Ter Bogt, Engels, & Meeus, 2008; Rentfrow & Gosling, 2003; Schäfer & Sedlmeier, 2009; Ter Bogt et al., 2010) and samples outside of these geographical areas (Boer, 2009; Pimental & Oliveira, 2008; Getz et al., 2010; Tekman et al., 2008) found factors that were in general agreement with Rentfrow and others' (2011) five factors. Factors that differed were combinations or subdivisions of these five factors but they did not cut across them. We factor analyzed rated preferences for both Turkish and international styles of our sample in order to see whether their structure would conform to the pattern repeatedly observed in existing studies.

A second point of interest was the associations between values and music preferences. As previous studies showed (Boer, 2009; Rentfrow & Gosling, 2006; Tekman et al., 2008) values could predict music preferences. This, of course, was the departing point for an examination of the mediating effects of functions of music for the relation between values and music preferences. Considering that the RESPECT-Music scale and the specific list of musical styles were used for the first time with a Turkish sample, our analyses are explorative. The specific mediating effects were determined only after assessing the predictability of music preferences by values and functions of music on the one hand and the association between specific functions of music and personal values on the other hand.

## II. METHOD

## A. Participants

Two hundred and forty six students of Uludag University participated in this survey study. Majority of the participants (74%) were females. Average age of the participants was 20.80 with a range from 17 to 25 years. This was the same sample who responded to the RESPECT-Music scale reported in Boer et al. (in press).

#### **B.** Materials

The survey assessed three groups of variables: functions of music, music preferences and value orientations. The RESPECT-Music questionnaire was tested in six different cultures by Boer and others (in press). This questionnaire consisted of 35 items that measured the importance of 10 functions of music. (See Table 4 for a list of the functions.) Respondents rated how well each item described their experiences with music on a 7-point scale. For the sample from Turkey, each scale had a reliability greater than .90 except for

the scale for the shaping-values function, which had a reliability of .72.

For the purpose of measuring values, the ten basic values of Schwartz and Bilsky (1987) were presented together with their core goals. Respondents rated the importance of each value as a guiding principle in their life on a 6-point scale. In addition, respondents rated how much they liked 28 styles of music on a 7-point scale. The list of styles was developed for an international study and 4 styles indigenous to Turkey were added to it. Respondents were given an option to indicate that they were not familiar with the style. Ratings of only 16 styles were included in the analyses because at least 80% of the respondents were familiar with them.

#### C. Procedure

Participants responded to the questionnaire in groups. They were given the questionnaires when they were assembled for various class meetings and they were given as much time as they wished to complete the questionnaire.

## **III. RESULTS**

#### A. Factor analysis of musical preferences

Preference ratings for the 16 musical styles were analyzed by a principal components factor analysis with varimax rotation. This analysis produced five factors that explained 63.54 of the total variance. Information about this factor analysis is given in The sophisticated, intense, and contemporary Table 1. (Rentfrow et al., 2011) dimensions that are commonly observed in factor analyses of musical preferences emerged as factors 2, 4, and 5 respectively. Factor 5 included pop music, which is usually grouped with mellow music styles, but Tekman and others (2008) observed that especially foreign pop music had a relatively high loading on the energetic and rhythmic dimension for Turkish university students. This was also the case in Rentfrow and Gosling's (2003) data. Nevertheless, the scale reliability of Factor 5 was relatively low. Factor 3, which combined the main popular styles specific to Turkey, will be considered equivalent to the unpretentious dimension of Rentfrow et al. (2011). Factor 1 encompassed "music from my country/region", Ozgun and soundtracks, which seem to assemble popular local music for this university student sample (soundtracks of Turkish movies have become popular recently), hence, we called this dimension 'mellow music'.

#### B. Relations between values and preferences

Endorsement of the basic values was measured on four value dimensions of Schwartz (Bilsky, Janik, & Schwartz, 2010; Schwartz, 2011; Schwartz & Bilsky, 1987). Table 2 presents the four value orientations and their content as well as the scale reliabilities of the value domains. Only the reliability of the openness-to-change orientation was relatively low.

We examined the relations between values and music preferences through multiple regression analyses. In these analyses openness and self-transcendence were included in one set of analyses while conservation and self-enhancement were included in another in order to avoid multicollinearity problems. Statistically significant regression coefficients for value orientations as predictors and style dimensions as dependent variables are given in Table 3. Value orientations did not predict preferences for the unpretentious styles. Openness-to-change and self-transcendence values were positive predictors of preference for sophisticated styles. Self-transcendence values also predicted preference for mellow styles. Preference for intense styles was predicted positively by openness-to-change and negatively by conservation values. Significant predictors of preference for contemporary styles were self-enhancement and conservation values.

#### C. Mediating effects of functions

In order to consider a function of music as a candidate for mediating the effect of a value orientation on preference for a musical style, we looked for fulfillment of two conditions: First, the value orientation had to significantly predict both preference for the musical style and the function of music. Second, the function of music had to significantly predict preference for a musical style. We calculated the regression coefficients for functions of music as predictors and preference for musical styles as dependent variables on the one hand, and value orientations as predictors and functions of music as dependent variables on the other. The significant regression coefficients from these analyses are given in Tables 4 and 5.

As a result, we tested eight potential mediating effects which fulfilled the above mentioned conditions: (1) The effect of self-transcendence on preference for mellow music could be mediated by expressing cultural identity. (2) The effects of openness-to-change on preference for sophisticated music could be mediated by the shaping values function. The effect of openness-to-change on preference for intense music could be mediated by the venting (3) and shaping values functions (4), and the effect of conservation on preference for this style could be mediated by the shaping values function (5). (6) The effect of self-enhancement on preference for contemporary music could be mediated by the dancing function. The effect of conservation on the preference for contemporary music could be mediated by the shaping values (7) and expressing political attitudes function (8).

Statistical significance of the indirect effects of values on musical preferences were evaluated by using the macros that Preacher and Hayes have prepared for testing single (Preacher & Hayes, 2004) and multiple (Preacher & Hayes, 2008) mediators through bootstrapping. It was found that the positive effect of self-transcendence on preference for mellow styles was significantly mediated by expressing cultural identity functions (Table 6). The effect of openness-to-change on preference for sophisticated styles was significantly mediated by the shaping-values function (Table 7). However the mediating effect was partial: Openness also influenced preferences for sophisticated styles directly after accounting for the mediator. The positive effect of openness-to-change and the negative effect of conservation on preference for intense styles were also significantly mediated by the shaping values function (Table 8). The mediating effect of the venting function was not significant. Conservation still had a direct effect on preference for intense styles after accounting for the mediators. Self-enhancement positively affected the preference for contemporary styles both directly and indirectly through the mediating effect of the dancing function (Table 9). Conservation had a direct positive effect on preference for contemporary music; mediating effects of shaping values and expressing political attitudes were not significant (Table 9).

## **IV. DISCUSSION**

The current study showed that (a) music preferences are associated with personal value orientations, and (b) music functions can explain significant shares of this association. These findings contribute to a refined understanding of music listening behaviour. In particular, musical choices seem motivationally rooted in value orientations. Furthermore, values steer the functional uses of music, which in turn motivate the selection of music styles being preferred.

The structure of preferences for the styles our respondents were familiar with could fit the framework proposed by Rentfrow and others (2011), however, both mellow and unpretentious dimensions were made up of local styles while pop music was entailed in the contemporary dimension. One explanation of this could be that, as Tekman and Hortaçsu (2002) found, the word "pop" practically means "foreign pop" to Turkish university students, which they associated most with dancing (see Table 4). Turkish pop music was likely to be considered as "music from my country" and the traditional styles in the unpretentious factor are all part of popular music scene in Turkey. Thus, although the mellow and unpretentious dimensions in this study may be considered as "contemporary popular" and "traditional popular," respectively, they retain the spirit that Rentfrow and others intended.

The value associations of musical styles that appear most consistently across studies and across cultures involve intense styles (Boer, 2009; Tekman et al., 2008). Openness-to-change is positively and conservation is negatively associated with liking styles such as rock and metal. Current study also converged with Boer's (2009) work in showing positive associations between self-enhancement and preferences for styles such as hip hop and pop, and self-transcendence and preferences for classical music and jazz.

We found that, in addition to values, certain functions of music were specifically associated with certain styles. Dancing and movement was an obvious reason for preferring contemporary music, which is in line with Schäfer and Sedlmeier's (2009) findings. Shaping values was a function that was appropriate for sophisticated and intense styles but inappropriate for contemporary styles. Getz and others (2010) found preference for sophisticated styles to be associated with cognitive uses of music, whereas Schäfer and Sedlmeier (2009) associated this musical preference with receiving information and experimenting with the self. These are uses of music that are consistent with shaping values. Intense styles were well suited to venting and shaping values. The relation with venting was consistent with the results of Ter Bogt and others (2010). They identified a "medium-involved" group who rated the importance of music positively and emphasized its use for enhancing mood and coping with stress. Intense styles were the favourite of this group. In addition, respondents of Schäfer and Sedlmeier (2009) found rock music important for expressing values.

In considering the relations of values with functions of music, the structure of these functions that Boer and others (in press) proposed could be helpful: They placed the functions of music measured by RESPECT-Music in a two dimensional space in which one dimension is an affect/pleasure versus contemplation axis and the other is an intrapersonal versus socio-cultural axis. In Tables 4 and 5 the groups of functions separated by horizontal lines range from affect/pleasure at the top of the table to contemplation at the bottom. Furthermore, within each group there is a progression from intrapersonal to socio-cultural. Openness-to-change was associated with intrapersonal functions at the affect/pleasure end but with socio-cultural functions at the contemplative end. Conservation, on the other hand, displayed negative associations with more contemplative socio-cultural functions. In addition, self-transcendence values motivate the uses of music for family bonding and the expression of cultural identity.

We tested eight potential mediation effects of music preference - value links, and five mediation effects were supported in our analyses. Self-transcendence values were associated with using music for expressing cultural identity. This resulted in preferring mellow styles that were popular in the Turkish culture of today. Openness-to-change was consistent with using music to shape one's values. As a result, this value orientation supported preferences for sophisticated and intense styles. Self-enhancement was associated with using music for dance and movement and this supported preference for contemporary styles. The rejection of conservation values, on the other hand, was associated with the use of music for shaping values. This contributed to the negative association between conservation values and preference for intense styles. The value function of music was the most consistent mediator in the current study, which is not surprising considering the value basis of the studied direct effects. It is noteworthy that most of the mediation effects were partial mediations. Furthermore, among the associations between values and music preferences, those connecting self-transcendence and sophisticated styles, and conservation and contemporary styles were not mediated by functions of music. This indicates that alternative theoretical mechanisms are likely to exist, which should be explored in future studies.

To sum, we found that both values and functions of music predict preferences for certain musical styles and part of the predictive power of values for musical preferences are through the mediation of functions. However, on should note some limitations of this study: Some of our measures had rather low reliability due to the use of short indicators rather than full scales. In future studies of this kind, researchers should use the full measures of values (Schwartz, 2011). A more standard instrument for assessing preferences for both international and Turkish musical styles would also be valuable for music preferences research in Turkey. The cross-sectional character of our study limits causal interpretations of the findings. Going beyond the culture specific aspects of these results, it is noteworthy that certain associations that we observed are consistent with findings in other cultures. Whether these associations point to mechanisms that can be generalized cross-culturally remains a question to be studied.

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Table 1. Factor loadings, percentages of explained variance and Cronbach's  $\alpha$  scale reliabilities of the musical styles. Factor loadings less than .30 are not given.

Table 3. Regression coefficients for values as predictors formusical preference.Style dimensions are: (1) Mellow, (2)Sophisticated, (3) Unpretentious, (4) Intense, (5) Contemporary.Only statistically significant coefficients are reported.

Value orientation	Style dimension						
	1	2	3	4	5		
Openness-to-change		.18		.17			
Self-enhancement					.17		
Conservation				20	.24		
Self-transcendence	.14	.14					

Table 4. Regression coefficients for functions of music as predictors of musical preferences. Style dimensions are: (1) Mellow, (2) Sophisticated, (3) Unpretentious, (4) Intense, (5) Contemporary. Only statistically significant coefficients are reported.

.19

-.26

Musical style			Factor			- reporteu.						
5	1	2	3	4	5	Function		Style dimension		ion		
Music from my	.78					_	1	2	3	4	5	
region (e.g., Local						Dancing					.31	
bands)						Emotion						
Music from my	.73				.30	Social bonding with	.18					
country						friends						
Ozgun (original)	.61					Cultural identity	.17				.15	
Soundtracks	.53	.38				Venting				.17		
Classical & Opera		.74				Shaping values		.27		.19	22	
Jazz & Blues		.72				Social bonding with				16		
Samba		.69				family						
World Music	.32	.60				Background	.20					
Turkish Art Music			.78			Focus	15					
Turkish Folk Music	.47		.74			Expressing political	.14				13	
Arabesk			.60		.42	attitudes						
Metal				.81		Table 5 Regression	coefficient	s for	value	orient	ations as	
Electronica				.79		predictions of functio	ns of music	. Only	statist	ically s	ignificant	
Rock / Alternative /				.66		coefficients are repo	orted. SE	= se	lf-enhai	ncemen	t, ST =	
Grunge						self-transcendence. No	ote that pred	lictors a	re on th	ne colur	nns of the	
HipHop & Rap					.82	table.						
Pop					.67	- Function		Value	orienta	ation		
Percentage of	19.59	16.77	10.01	8.96	8.22	1 unotion	Openness	SE	Cons	ervatio	on ST	
variance explained						Dancing	openness	21	Cont	jei vuite	<u>, 101</u>	
Scale reliability	.65	.69	.66	.65	.32	- Emotion	27	.21				
Table 2 The four valu	e orienta	tions and	the basic	values th	at thev	Social bonding with	.27					
subsume. Scale reliabilities are Cronhach's a values			friends									
						Cultural identity					16	
Value orientation			S I I	scale		Venting	22				.10	
			reliat	oility		Shaning values	.22			- 15		
Openness-to-change				30		Shuping values	.10			.10		

	reliability
Openness-to-change	.39
Self-direction	
Stimulation	
Hedonism	
Self-enhancement	.65
Achievement	
Power	
Conservation	.70
Security	
Tradition	
Conformity	
Self-transcendence	.72
Benevolence	
Universalism	

Social bonding with

Expressing political

.20

family Background Focus

attitudes

Table 6. Coefficients for the direct and indirect effects of slef-transcendence on preferences for mellow styles. Indirect effects were analysed by the bootstrap method with 5000 resamples.

Independent variable and	Direct effect		Indirect effect		95% CI	
mediators	β	SE	β SE		LL	UL
Self-transcendence	.15	.08				
Cultural identity			.06*	.03	.01	.12

\* p < .05

Table 7. Coefficients for the direct and indirect effects of openness-to-change on preferences for sophisticated styles. Indirect effects were analysed by the bootstrap method with 5000 resamples.

Independent variable and mediators	Direct effect		Indi eff	Indirect effect		95% CI	
	β	SE	β	SE	LL	UL	
Openness-to-change	.31*	.12					
Shaping values			.11*	.04	.03	.20	
* n < 05							

Table 8. Coefficients for the direct and indirect effects of values on preferences for intense styles. Indirect effects were analysed by the bootstrap method with 5000 resamples. Confidence intervals for the indirect effects are bias corrected.

Independent	Direct effect		Indi	Indirect		6 CI
variable and			effe	ect		
mediators	β	SE	β	SE	LL	UL
Openness-to-	.21	.14				
change						
Total			.13*	.05	.05	.25
Venting			.06	.04	05	.19
Shaping			.06*	.03	.01	.17
values						
Conservation	- 28*	10				
Shaning	20	.10	- 06*	03	- 13	- 02
values			00	.05	15	02

<sup>\*</sup> p < .05

Table 9. Coefficients for the direct and indirect effects of valueson preferences for contemporary styles. Indirect effects wereanalysed by the bootstrap method with 5000 resamples.Confidence intervals for the indirect effects are bias corrected.

Independent	Direct		Indirect		95% CI	
variable and	effect		effect			
mediators	β	SE	β	SE	LL	UL
Self-enhancement	.35*	.10				
Dancing			.08*	.04	.01	.15
Conservation	.44*	.10				
Total			.04	.03	02	.11
Shaping values			.001	.02	05	.04
Political			.04	.03	02	.11
attitudes						

\* p < .05