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Abstract

This project explored the relationship between socio-cultural experiences and openness to listen to a variety of international music genres. These genres included: Korean Pop, Classical, African Beats, Latin, Tropical, Reggae, Rap, Indian, and Jazz. Participants (n = 298) were recruited online utilizing Mechanical Turk. All participants were eighteen years of age or older. A significant positive correlation was found between socio-cultural experiences and openness to global music genres. Preliminary analysis is discussed for the various components of the socio-cultural exposure scores (cultural experiences). A potential implication of this study is the recognition of the importance of, as well as the relationship between, socio-cultural experiences and individual Openness.

## Socio-cultural experiences and openness to music genres

The link between music preference and personality is well-documented in the psychological literature (e.g., Brown, 2012). A significant positive correlation has been found in studies comparing the Big Five Personality Trait of Openness to taste in music (Delsing, Ter Bogt, Engels, & Meeus, 2008). Openness in terms of the Big Five Personality Traits refers to a person who enjoys variety and loathes routine. Interest in genres such as blues, jazz, classical, rock and heavy metal have been found to correlate strongly with different traits such as Openness (Delsing et al., 2008; Rentfrow & Gosling, 2003). Yet, the research often neglects to consider the influence of socio-cultural experiences of individuals on music preference. While past research has shown that personality is expressed through taste in music (Delsing et al., 2008), it is important to consider what experiences shape those interests. Previous research has demonstrated the relationship between music preferences and social class (Veenstra, 2015) as well as parental influences on music preferences (Ter Bogt, Delsing, Van Zalk, Christenson, & Meeus, 2011), and even the mere-exposure effect (Hansen & Wanke, 2009). These studies support the notion that music preferences are shaped, in part, by social context. Few studies, however, take into consideration the vast array of cultural influences that may impact such preferences.

For the purpose of this study, "socio-cultural experiences" refers to the ways in which people interact with a culture outside of their own on a day-to-day basis. Cultural experiences are garnered in a variety of ways, including in social settings, through travel, and in educational settings. In a study of youth music preferences, 325 adolescents and both of their parents were surveyed about their music preferences (Ter Bogt et al., 2011). The study concluded that level of education achieved, and in turn social class, was linked to music taste in both generations and

that parental preferences for a specific genre of music predicted their adolescent's preference for that genre.

While personality and music have been researched together often (Brown, 2012; Delsing, et al., 2008; Rentfrow & Gosling, 2003; Schwartz & Fouts, 2003; Swami, et al., 2003), one study conducted in Germany by Schafer and Sedlmeier (2010) also integrated culture as a possible area related to music preference. The study found that the potential for music to express identity was not a contributing factor in preference for a piece of music. The researchers suspected that this may have occurred because the most closely associated music to the German culture is not popular with adolescents. The authors stated that, "we should not abandon the impact of the cultural factor prematurely. We can only say that it did not play an important role for the present sample of German respondents" (Schafer & Sedlmeier, 2010, p.231). The study found that the culture to which a person belongs is not necessarily indicative of preference for the music of that culture, but it was suggested that culture might play a more important role in countries outside of Germany.

Music preference has also been examined with regard to specific educational experiences such as multilingualism in past research. Multilingual fluency typically, also, indicates exposure to the cultures of the languages spoken. One analysis of music preferences in children of multi-cultural backgrounds living in Germany found that two-thirds of children of German-Turkish background had balanced music preferences when it came to distinct musical tones found in each of the contributing cultural backgrounds. The majority of the children were bilingual, speaking both languages nearly equally between home and school (Sakai, 2011). Another study by Brittin (2014) found a small but significant correlation between preference for four popular songs representing English, Spanish, or Asian cultures and the number of languages spoken by the

children (who ranged from fourth to sixth grade) in the study. While not related to languages spoken but related to cultural exposure, MacLeod and McKoy (2012) found that fourth and fifth grade students of varied ethnic background in an orchestra class which played four songs from various cultural backgrounds preferred to play songs from a culture outside of their own. Each of these studies highlight a relationship between cultural exposure and a higher level of openness to music.

Personality traits like Openness have been previously studied in relation to music as well. In a study by Delsing et al. (2008), 1,044 participants aged twelve to nineteen were randomly selected, from a previous sample, to look at music preference over time. Surveys on music preference and personality were administered every year for three years. The results indicated that music preferences were stable over time and were also related to personality, in that, preferences for certain genres (e.g., Rock) correlated more strongly with certain personality characteristics (e.g., Openness). Other research suggests that people have a tendency to listen to and like music that is reflective of their personality (Rentfrow & Gosling, 2003; Schwartz & Fouts, 2003). Personality traits and music preferences were further studied by Swami et al. (2013), in which it was found that there were gender differences in music preferences, in that men were more open to heavy metal music as compared to women. A multiple regression in this study found that the Openness personality trait was associated with stronger preferences for heavy metal music.

These past studies focused on personality traits that relate to preferences for a specific genre of music (Delsing et al, 2008; Rentfrow & Gosling, 2003; Schwartz & Fouts, 2003; Swami et al., 2013). The present research will measure Openness in terms of personality utilizing the Openness subscale from the Big Five Aspects Scale (DeYoung, Quilty, & Peterson 2007). This

scale will be incorporated in order to determine if there is a relationship between having an open personality trait and being open culturally, as measured through the music genres. Openness to music genres will be explored utilizing a Likert scale measurement for each of nine global music genre samples. The present study will consider whether the personality trait of Openness correlates to an overall openness to music of various cultures.

This research study seeks to expand upon previous research that supports the value of cultural immersion in education. Given the findings of the relevance of education in music preferences (Brittin, 2014; MacLeod & McKoy, 2012; Sakai, 2011; Ter Bogt et al., 20011), the present study will extend previous research by including educational cultural experiences, such as studying abroad or learning a foreign language, to explore the impact of cultural education further. The study by Ter Bogt et al. (2011) did not examine the specific types of educational experiences (e.g., language study), and thus, the present research will focus on specific coursework rather than level of education attained. Cultural experiences such multilingualism will also be considered, as previous research has done (Sakai, 2011).

The present study will examine cultural experiences in relation to openness to music genres. It will expand upon the range of socio-cultural experiences that past research has surveyed (Schafer & Sedlmeier, 2010) in order to garner a wider scope of experiences that may relate most strongly to openness to other cultures as measured through music preferences. We predict that exposure to various cultural experiences in the areas of social, education, and travel, will positively correlate with openness to a variety of global music genres. We also predict that language fluency under the education experience will significantly correlate with openness to global music genres based on findings from past research (e.g., Brittin, 2014; Sakai, 2011).

## Method

**Participants**

Two hundred and ninety-nine participants were recruited via Mechanical Turk (an online research participant recruiting platform). Of the 299 participants, 1 participant was excluded due to incomplete data, leaving a sample of 298 participants (133 Female, 163 Male, 1 Transgender, 1 unspecified). Female participants constituted 44.6%, male participants constituted 54.7%, and transgender and unspecified participants constituted less than 1% of the sample. Participants were required to be at least 18-years-old, reported to be at least proficient in English, and have no known hearing impairments. Each participant was compensated 70 cents in United States Dollars for completion of the survey. The participants ranged in age between 19- and 71-years-old. Data collection was not restricted to the United States and included people reported to be born in the following countries: United States of America (73.15%), India (23.49%), South Korea (0.336%), Taiwan (0.336%), Cyprus (0.336%), Macedonia (0.336%), Pakistan (0.336%), Argentina (0.336%), Mexico (0.336%), and Croatia (0.336%).

**Materials**

Fifteen second clips from each of 9 different songs representing different music genres from around the globe were utilized in this survey. A predetermined date near the onset of the experiment was chosen as the song selection date (12/14/15). For each genre, the number one song on that genre's music chart was selected for use in the experiment (see Table 1). The top music charts were used as a consistent measure of music popularity in the selection process. Fifteen second clips from the chorus or chorus-like portion of each song were then recorded utilizing Adobe Audition. If original recordings were longer than 15s they were trimmed down to 15s or as close to that time as appropriate for the musical phrasing. Clips ranged in length from 14s to 16s. Linear fade-ins of 10ms going from 0 to 50% volume were added at the start of each

clip and linear fade-outs of 10ms going from 50 to 0% volume were applied at the end of each clip using Goldwave software in order to create smooth and consistent clips. Two questions ("I like this music" and "This music can express my identity") used to measure openness to each music genre clip were pulled from subscales on a measure in a study conducted by Schafer and Sedlmeier (2010), in which the researchers attempted to determine which variables co-vary with music preference.

Following the completion of the music clip section, 2 questions queried participants on what type of device they took the survey and whether or not they used headphones. Following these questions were 17 questions that were created to measure the socio-cultural experiences of the participants as well (see Appendix A). Those questions were created by the researchers and were selected to inquire about various cultural experiences as obtained in areas such as social (questions 14, 15, 16, 27, 28, 29; see Appendix A), educational (questions 17, 19, 20, 21; see Appendix A), and travel (questions 13, 18, 23, 24; see Appendix A). Social cultural questions included "Do you have any family that are from/live in another country?" Educational cultural questions included "Have you ever taken an anthropology class?" Travel questions included "How many countries have you visited?" The three subscales and their questions were coded to provide a value to each response. For example, a participant that has taken an anthropology class would receive 1 point, while a person who has not would receive no points. Questions with responses that ranged in degree received a point more for each degree higher than the response before on a sliding scale. For example, when asked how culturally diverse the neighborhood they grew up in was on scale from "Not At All" to "Extremely," participants that responded with "Not At All" received no points, those that responded with "Slightly" received one point, those that responded with "Somewhat" received two points, those that responded with "Moderately"

received three points, and those that responded with “Extremely” received four points. The survey also included a portion of the Openness subscale ($\alpha = 0.77$) from the Big Five Aspects Scale (DeYoung, Quilty, & Peterson, 2007), a survey that measures personality characteristics via responses from statements in which participants rate how much each statement is or is not like them. The survey was compiled and administered on Qualtrics, an online surveying website.

**Procedure**

Three hundred survey slots were made available on Mechanical Turk to recruit participants. Qualifying participants (those aged 18 and older that were proficient in English and had no known hearing impairments) that chose to participate accepted a slot after reading a short description of the survey. They were then brought to the survey on Qualtrics. Participants read an informed consent form and checked a box agreeing to participate. Those that wished to no longer proceed were advised to exit the screen immediately. Participants were free to exit the survey at any point if they no longer wished to participate. Participants that continued with the survey listened to 9 music clips, each approximately 15s in length. After each individual clip, they were asked to rate on a 5-point Likert scale from “Not at All” to “Extremely” how accurate the two statements (“I like this music” and “This music can express my identity”) were in relation to themselves (Schafer & Sedlmeier, 2010). Following the music clips, participants were asked “Did you listen to these music clips with headphones?” and “How did you take this survey” in order to control for some potential variances in sound from how the clips were played by the participants.

Participants were then surveyed on a variety of experiences (see Appendix A) including travel, social, and educational experiences in order to measure their socio-cultural experiences. After completing the socio-cultural survey questions, participants then rated themselves on the

Openness subscale from the Big Five Aspect Scale (DeYoung et al., 2007). Some of the statements that participants rated themselves on (from "strongly disagree" to "strongly agree") included "get deeply immersed in music" and "love to reflect on things." Following the completion of this scale, participants were asked a series of demographic questions (Langhout, Drake, & Rosselli, 2009). Upon the completion of the survey participants were brought to a debriefing which explained what the research hypothesis was and gave them a code to enter to claim their reward for the successful completion of the survey.

## Results

This study aimed to measure the relationship between socio-cultural experiences and openness as measured through music preferences and the Openness subscale of the Big Five Aspect Scale (DeYoung, et al., 2007). We predicted that the more socio-cultural experiences a person had in the areas of travel, social, and education, the more open the person would be overall to the various music genres. In other words, we predicted a positive correlation between socio-cultural experience and openness. Transformations of plus one, natural logarithms (adding 1 to each score before taking the natural log) were done on the distributions of the *travel* and *educational* subscales to account for skewness. See Table 2 for descriptive statistics for each scale.

The mean number of a participant's responses to the statement, "I like this music," was used to represent the overall openness of the participant to the global music genres. A mean number for a participant's responses to the statement, "This music can express my identity," was used to represent how much the participant identified with the global music genres overall. A Pearson product-moment correlation coefficient was computed to assess the relationship between

how much participants liked the music and how much the participants identified with the music. There was a strong correlation between the two variables, $r = 0.84$, $p < 0.001$ (see Figure 1).

The *exposure score* for each participant was calculated through a combination of three subscales: *social*, *educational*, and *travel*. A Pearson product-moment correlation coefficient was computed to assess the relationship between *exposure score* and openness to global music genres. There was a weak correlation of $r = 0.24$, $p < 0.001$ (see Figure 2). Overall *exposure scores* also correlated with the overall identity mean for participants; a weak correlation of $r = 0.16$, $p = 0.005$, was found. The relationship between the *personality* subscale and the Openness scale pulled from the Big Five Aspects Scale (DeYoung, et al., 2007) was assessed and found to be weakly correlated, $r = 0.14$, $p = 0.016$. No correlations was found between the *personality* subscale and openness to global music genres (see Table 5).

The data were also analyzed looking at just United States participants (n=218). Distinct differences were not found between the correlations for the original full sample and an analysis for just the United States participants, except for an analysis of the language questions under the *educational* subscale. Therefore we have reported the results for the full sample, expect were noted.

**Music and Exposure Subscales**

The *educational subscale* had a moderate correlation of $r = 0.42$, $p < 0.001$, with the openness to global music genres (see Figure 3). Openness to global music genres had a weak correlation of $r = 0.12$, $p = 0.040$ with the *social* subscale. Openness to global music genres had a weak correlation of $r = 0.15$, $p = 0.011$ with the *travel* subscale (see Table 5).

**Personality and Exposure Subscales**

There were no significant correlations between the *personality* subscale and the *educational* subscale or between the *personality* subscale and the *travel* subscale. A moderate correlation of $r = 0.32$, $p < 0.001$, was found between the *social* subscale and *personality* subscale (see Table 5).

**Language Correlations**

While the *personality* subscale did not correlate with the openness to global music genres, a significant correlation between openness to global music genres and the *educational* subscale led to further analysis on two questions in the *educational* subscale ("Aside from your native language, how many different languages have you studied for a period of at least three months? and "Aside from your native language, how many different languages can you speak fluently?"). Transformations of plus one, natural logarithms were performed on these two questions to account for skewness. The number of languages a participant reported to speak in addition to their native language (subsequently referred to as "language fluency") was found to have a moderate correlation of $r = 0.50$, $p < 0.001$ with openness to global music genres. The number of languages a participant reported as having studied for a period of at least 3-months had a weak correlation of $r = 0.22$, $p < 0.001$ with openness to global music genres. Neither language fluency nor number of languages studied correlated with the *personality* subscale (see Table 3). When the data was analyzed utilizing only United States participants (n=218), language fluency had a moderate correlation of $r = 0.32$, $p < 0.001$ with openness to global music genres, but did not have a correlation to the *personality* subscale (see Table 4). Openness to global music genres did not correlate with language study when looking at just United States participants, but had a weak correlation of $r = 0.15$, $p = 0.024$ with language fluency (see Table 4).

## Discussion

We hypothesized a positive correlation between socio-cultural experiences and openness to global music genres. Multiple correlational analyses were conducted in order to garner a wider view of the relationships between socio-cultural experiences and a person's openness as measured by how much they liked various music genres from around the world (see Table 5). The results support our hypothesis; there was a moderate, though significant, positive correlation between socio-cultural experiences and openness to global music genres. We also predicted that language fluency would be correlated with openness to the global music genres. We found that language fluency was positively correlated with openness to the global music genres.

Further analysis was done on the language-related questions within the *educational* subscale finding a relationship between language fluency and openness to global music genres (see Table 3). This relationship was also consistent when only looking at US Participants (see Table 4). This finding indicates that there is a possibility that a multilingual background fosters a greater level of openness to other cultures as measured through music genres. Further research and analysis, however, is needed in order to determine the directionality of this relationship. This correlation yielded a similar result to Sakai's (2011) study in which children of German-Turkish background who were bilingual were found to have more balanced music preferences when compared to monolingual children. We also found a weak positive correlation between openness to global music genres and the number of languages studied by participants (see Table 3). This relationship was not found, however, when only looking at US participants (see Table 4). This difference shows the value of language fluency over language study and with further research could lead to support for raising the minimum number of languages study in the school systems. While further research is needed in order to determine the exact relationship between openness to global music genres and language fluency, or study of non-native languages, it is clear from

these findings along with previous research that there is an important connection between multilingualism and openness (Brittin, 2013; Sakai, 2011). This reliable positive correlation between multilingualism and cultural openness may provide support for the value of further research to determine the effects of the inclusion of foreign language in the classroom for the development of culturally open world citizens.

The *social* subscale was the only subscale that correlated with the *personality* subscale and it was a weak, positive correlation. This result, however, is not surprising as social experiences such as those measured in the *social* subscale (e.g., "Have you ever watched a movie in another language?") are experiences that would generally be sought out by an individual and Openness is a trait that refers to interest in variety. Those scoring higher on the *personality* subscale would be expected to also have more experiences on the *social* subscale.

The *educational* subscale also positively correlated with identity mean, showing a relationship between socio-cultural experiences in educational settings and a person identifying with music from various cultures. Given that the identity mean was strongly, positively correlated with openness to global music genres, it may indicate that cultural experiences gained in an educational setting have a strong relationship with being more open to global music genres and in turn feeling more strongly that a music genre may express one's identity. Whatever the case, this study has shown a clear relationship between education-related cultural experiences (such as foreign language learning and anthropology courses) and openness to global music genres. Future research should focus on the distinct relationship between such experiences and the degree of openness of an individual to other cultures.

The *personality* subscale did not correlate with openness to global music genres. The overall *exposure score* had a weak positive correlation with openness to global music genres.

The fact that overall *exposure score* correlated with openness to global music genres, but the *personality* subscale did not, suggests that an open personality is not necessarily indicative of being open culturally. These results may indicate that experiences, especially educational, have stronger relationships and connections to degree of openness to other cultures than one's personality and that regardless of personality, cultural experiences may foster openness.

This study had a few limitations to consider that hopefully can be addressed in future research. The present sample was largely from the United States and India with a few participants from a handful of other countries. The results must therefore be viewed with consideration of the culture from which the participants originated, as there are varied expectations and social perceptions for people of different cultural backgrounds that may have led to certain social desirability responses reflective of their native culture. The sample size was relatively small given the attempt at a global sampling, as well. Further, a small number of cultural experiences were considered in this study as compared to the limitless daily occurrences that expose people to cultures outside of their own at any given time. Another limitation of this study was the limited representation of global music genres. Nine genres from various parts of the globe were utilized in this study, which equates to a very small sampling of the various possibilities. Modern music pieces were selected, which could be perceived as another limitation of this study as newer music may not appeal as much to older participants.

This research yielded positive correlations between cultural experiences and openness to other cultures as measured through music, building upon previous research. Future research should look deeper into the causal relationships of these correlations. Of the four subscales (social, educational, travel, and personality) correlated with openness to global music genres, the *educational* subscale had the strongest relationship with specific correlations to the foreign

language fluency and foreign language study questions. Future research, therefore, should further explore the relationship between language fluency and openness to other cultures.

Possible gender differences in the relationships between cultural experiences and openness should also be explored in the future. Given that people may have underlying prejudices or preferences, including an Implicit Association Test for measuring views on various cultural groups may also be beneficial. This could lead to a clearer picture of how cultural experiences relate to openness by looking for a positive correlation between cultural experiences and openness to global music genres in people that have specific implicit associations to various races or ethnicities. Social class and cultural differences should also be explored in future research. Lastly, exploring possible connections between specific countries travelled to and openness to global music genres should be explored, as a person may travel to another country but that culture may be much more similar to their own as compared to many other countries that could have been explored.

## Conclusion

In sum, this study yielded several significant correlations that indicate a relationship between socio-cultural experiences and being open to other cultures as measured through music. Culturally open global citizens are essential in creating a more accepting, peaceful world, and therefore, these significant correlations should be further explored. Further research could lead to a strong argument to increase funding for access to resources for socio-cultural experiences for the general population, especially in an educational setting, to foster more culturally open global citizens.

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Table 1

***Music Selections***

| Genre | Song Title | Artist | Chart Source |
|---|---|---|---|
| Classical | E Più Ti Penso | Andrea Bocelli, Ariana Grande | Billboard.com Classical Albums |
| Jazz | Get Up | Jeff Lorber Fusion | Billbaord.com Smooth Jazz Songs |
| African Beats | Nek-Unek | MC Galaxy featuring Davido | afro-hits.com African Beats |
| Indian | Main Hoon Hero Tera | Salman Khan | timesofindia.indiatimes.com Mirchi Top 20 |
| Tropical | Que Se Siente | Rolf Sanchez | Billbaord.com Tropical Songs |
| Reggae | Wonna Deez Nites | Eddie Murphy featuring Beenie Man | iTunes.com Top 100 Reggae Songs |
| Korean Pop | Not Spring, Love or Cherry Blossoms | High4 With IU | Billbaord.com Korea K-Pop Hot 100 |
| Rap | Hotline Bling | Drake | Billboard.com Hot Rap Songs |
| Latin | Ginza | J Balvin | Billbaord.com Hot Latin Songs |

Table 2

***Descriptive Statistics for Survey Scales***

| | N | Range | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|---|
| Music Mean | 298 | 4.00 | 1.00 | 5.00 | 2.8768 | .87774 |
| Identity Mean | 298 | 3.89 | 1.00 | 4.89 | 2.3944 | .98113 |
| Education Subscale | 298 | 16.00 | .00 | 16.00 | 2.6879 | 2.58458 |
| Social Subscale | 298 | 18.00 | 1.00 | 19.00 | 10.9262 | 3.44479 |
| Travel Subscale | 298 | 32.00 | .00 | 32.00 | 4.4060 | 4.69324 |
| Exposure Score | 298 | 49.00 | 3.00 | 52.00 | 18.0604 | 7.47767 |
| Personality Subscale | 298 | 35.00 | 15.00 | 50.00 | 38.7497 | 6.37470 |
| Education Subscale Transformed | 298 | 2.83 | .00 | 2.83 | 1.0757 | .69420 |
| Travel Subscale Transformed | 298 | 3.50 | .00 | 3.50 | 1.2913 | .94833 |

Table 3

***Language Correlations- Full Sample***

| Question | Correlation to Music Mean | Correlation to Personality Subscale |
|---|---|---|
| Transformed Language Fluency | $r = 0.50$ | $r = -0.11$ |
| | $p < 0.001$ | $p = 0.050$ |
| Transformed Language Study | $r = 0.22$ | $r = 0.05$ |
| | $p < 0.001$ | $p = 0.365$ |

Table 4

***Language Correlations- United States Only***

| Question | Correlation to Music Mean | Correlation to Personality Subscale |
|---|---|---|
| Transformed Language Fluency | $r = 0.32$ | $r = -0.48$ |
| | $p < 0.001$ | $p = 0.483$ |
| Transformed Language Study | $r = 0.68$ | $r = 0.153$ |
| | $p = 0.318$ | $p = 0.024$ |

Table 5

***Results Matrix***

| | | Ed Score (Ln) | Music Mean | Identity Mean | Social Score | Exp. Score | Openness Scale out of 50 | Age | Travel Score (Ln) |
|---|---|---|---|---|---|---|---|---|---|
| Education Score (Ln) | Pearson Correlation | 1 | .416** | .329** | .215** | .593** | .044 | -.176** | .372** |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .000 | .448 | .002 | .000 |
| | N | 298 | 298 | 298 | 298 | 298 | 298 | 298 | 298 |
| Music Mean | Pearson Correlation | .416** | 1 | .839** | .119* | .243** | .030 | -.133* | .148* |
| | Sig. (2-tailed) | .000 | | .000 | .040 | .000 | .612 | .022 | .011 |
| | N | 298 | 298 | 298 | 298 | 298 | 298 | 298 | 298 |
| Identity Mean | Pearson Correlation | .329** | .839** | 1 | .026 | .160** | -.069 | -.174** | .103 |
| | Sig. (2-tailed) | .000 | .000 | | .657 | .005 | .236 | .003 | .077 |
| | N | 298 | 298 | 298 | 298 | 298 | 298 | 298 | 298 |
| Social Score | Pearson Correlation | .215** | .119* | .026 | 1 | .654** | .318** | -.104 | .231** |
| | Sig. (2-tailed) | .000 | .040 | .657 | | .000 | .000 | .073 | .000 |
| | N | 298 | 298 | 298 | 298 | 298 | 298 | 298 | 298 |
| Exposure Score | Pearson Correlation | .593** | .243** | .160** | .654** | 1 | .139* | .004 | .759** |
| | Sig. (2-tailed) | .000 | .000 | .005 | .000 | | .016 | .951 | .000 |
| | N | 298 | 298 | 298 | 298 | 298 | 298 | 298 | 298 |
| Openness Scale out of 50 | Pearson Correlation | .044 | .030 | -.069 | .318** | .139* | 1 | .115* | .013 |
| | Sig. (2-tailed) | .448 | .612 | .236 | .000 | .016 | | .048 | .823 |
| | N | 298 | 298 | 298 | 298 | 298 | 298 | 298 | 298 |
| Age | Pearson Correlation | -.176** | -.133* | -.174** | -.104 | .004 | .115* | 1 | .172** |
| | Sig. (2-tailed) | .002 | .022 | .003 | .073 | .951 | .048 | | .003 |
| | N | 298 | 298 | 298 | 298 | 298 | 298 | 298 | 298 |
| Travel Ln | Pearson Correlation | .372** | .148* | .103 | .231** | .759** | .013 | .172** | 1 |
| | Sig. (2-tailed) | .000 | .011 | .077 | .000 | .000 | .823 | .003 | |
| | N | 298 | 298 | 298 | 298 | 298 | 298 | 298 | 298 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

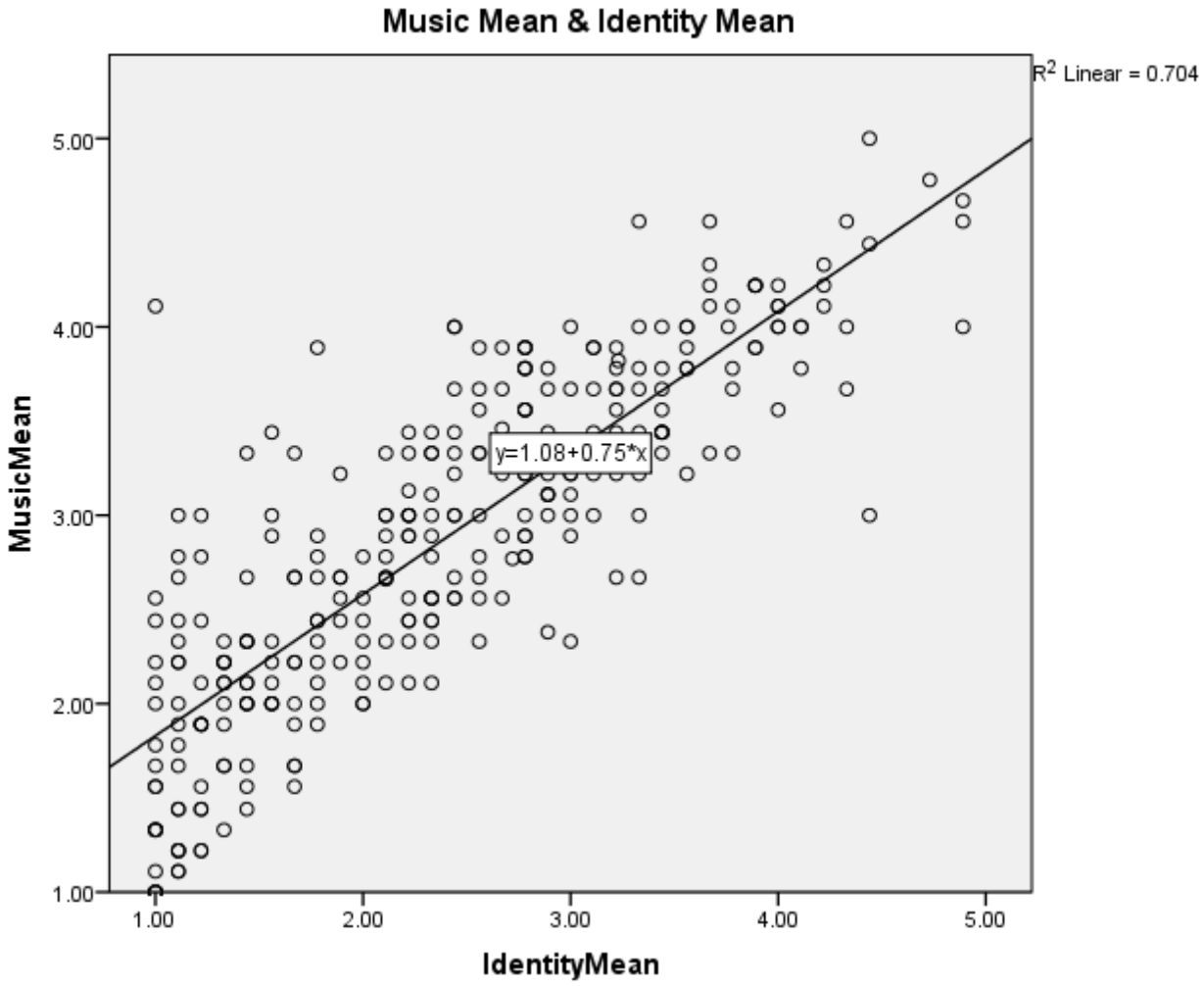


*Figure 1*. Music Mean correlated with Identity Mean. The variables were strongly correlated, $r$ = .84, $p$ < .001

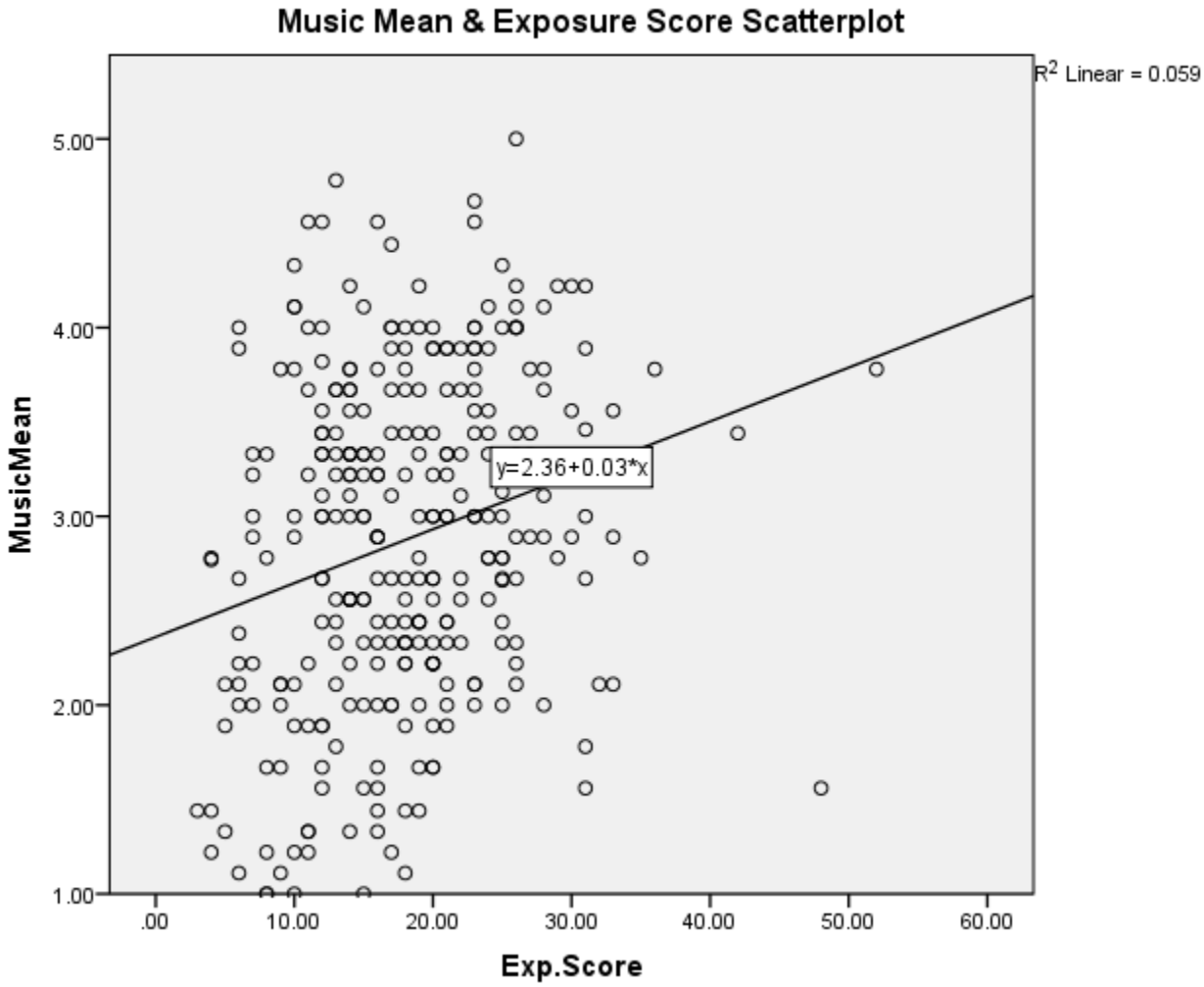


*Figure 2.* Music Mean correlated with Exposure Score. The variables were weakly correlated, $r = 0.24$, $p < .001$

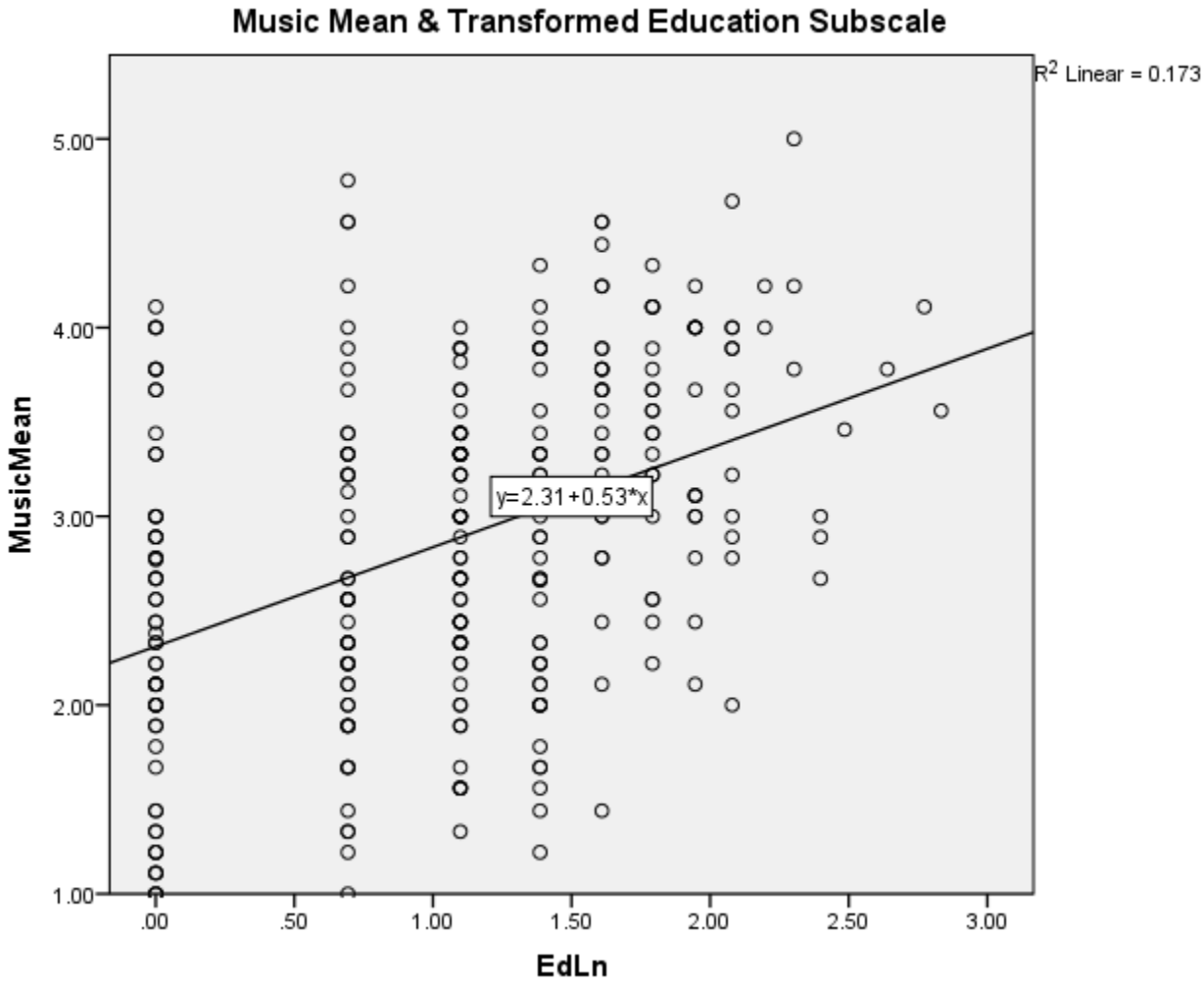


*Figure 3.* Music mean correlated with the transformed Education Subscale. The variables were moderately correlated, $r = .42$, $p < .001$

# Appendix A

1.) Music and Experience

You are being asked to participate in a study conducted through Bridgewater State University. To participate in this study, you must be at least 18 years of age, be fluent/proficient in English, and have no known hearing impairments. If you do not meet this requirement, please exit the study now by closing your browser.
By doing this study, we hope to learn more about how people's music preference and experiences are related. During the study you will listen to some music clips and rate them and then you will be asked about some life experiences by completing related questionnaires.
The total amount of time you will be asked to participate in this study is about 30 minutes.

If you decide to take part in the study, it should be because you really want to volunteer. To the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life. It is possible, however, that you may remember an experience in your life that will cause you some distress. If this occurs, you should feel free to discontinue your participation.

You may not benefit personally by participating in this study, but your willingness to take part may, in the future, help society as a whole better understand this research topic.

Your information will be combined with information from other people taking part in the study. When we write about the study to share it with other researchers, we will write about the combined information we have gathered. You will not be personally identified in these written materials. We may publish the results of this study; however, we will keep your name and other identifying information private. We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information, or what that information is.

Please be aware, while we make every effort to safeguard your data once received from the online survey/data gathering company, given the nature of online surveys, as with anything involving the Internet, we can never guarantee the confidentiality of the data while still on the survey/data gathering company's servers, or while en route to either them or us. This survey is being hosted by Amazon.com and involves a secure connection. You may view their Terms of Service addressing confidentiality at https://www.mturk.com/mturk/privacynotice.

If you have questions about this research, please contact Britni Heustis, Undergraduate Researcher, Bridgewater State University, at bheustis@bridgew.edu. You may also contact the faculty members supervising this work: Danielle Kohfeldt, PhD, at Danielle.Kohfeldt@bridgew.edu or Melissa Brandon, PhD, at Melissa.Brandon@bridgew.edu. Any questions regarding the conduct of the project, questions pertaining to your rights as a research subject, or research related to injury, should be brought to the attention of the IRB Administrator at (508) 531-1242.
If you do not wish to continue with your participation in this study, please exit the window now.

**By clicking below, you are indicating that you are at least 18 years old, are fluent/proficient in English, have no known hearing impairments, and you consent to participate in this research study.**

By checking this box you indicate that you are at least 18 years of age or older, are fluent/proficient in English, have no known hearing impairments, and are volunteering to participate in this study

2.) Please play the above clip and then rate on a scale from 1-5 with 1 being Not at All and 5 being Extremely how accurate the following statements are:

| | Not at All | | | | Extremely |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| I like this music | | | | | |
| This music can express my identity | | | | | |

3.) Please play the above clip and then rate on a scale from 1-5 with 1 being Not at All and 5 being Extremely how accurate the following statements are:

| | Not at All | | | | Extremely |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| I like this music | | | | | |
| This music can express my identity | | | | | |

4.) Please play the above clip and then rate on a scale from 1-5 with 1 being Not at All and 5 being Extremely how accurate the following statements are:

| | Not at All | | | | Extremely |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| I like this music | | | | | |
| This music can express my identity | | | | | |

5.) Please play the above clip and then rate on a scale from 1-5 with 1 being Not at All and 5 being Extremely how accurate the following statements are:

| | Not at All | | | | Extremely |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| I like this music | | | | | |
| This music can express my identity | | | | | |

6.) Please play the above clip and then rate on a scale from 1-5 with 1 being Not at All and 5 being Extremely how accurate the following statements are:

| | Not at All | | | | Extremely |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| I like this music | | | | | |
| This music can express my identity | | | | | |

7.) Please play the above clip and then rate on a scale from 1-5 with 1 being Not at All and 5 being Extremely how accurate the following statements are:

| | Not at All | | | | Extremely |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| I like this music | | | | | |
| This music can express my identity | | | | | |

8.) Please play the above clip and then rate on a scale from 1-5 with 1 being Not at All and 5 being Extremely how accurate the following statements are:

| | Not at All | | | | Extremely |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| I like this music | | | | | |
| This music can express my identity | | | | | |

9.) Please play the above clip and then rate on a scale from 1-5 with 1 being Not at All and 5 being Extremely how accurate the following statements are:

| | Not at All 1 | 2 | 3 | 4 | Extremely 5 |
|---|---|---|---|---|---|
| I like this music | | | | | |
| This music can express my identity | | | | | |

10.) Please play the above clip and then rate on a scale from 1-5 with 1 being Not at All and 5 being Extremely how accurate the following statements are:

| | Not at All 1 | 2 | 3 | 4 | Extremely 5 |
|---|---|---|---|---|---|
| I like this music | | | | | |
| This music can express my identity | | | | | |

11.) Did you listen to these music clips with headphones?

- Yes
- No

12.) How did you take this survey?

- On a cellphone
- On a laptop/desktop
- Ipad

13.) Were you born in the country you currently reside in?

- Yes
- No

14.) Do you have any family members that are from or live in another country?

- Yes
- No

15.) How culturally diverse (ie. Race, religion, ethnicity, political affiliation) would you consider the neighborhood you grew up in?

- Not Diverse
- Slightly Diverse
- Somewhat Diverse
- Moderately Diverse
- Extremely Diverse

16.) Do you have any friends that were born in another country?

- Yes
- No

17.) Have you ever, at any point, attended school in another country (including short term study abroad trips)?

- Yes
- No

18.) Have you ever worked, volunteered, or had an internship in another country?

- Yes
- No

19.) Have you ever taken an anthropology class?

- Yes
- No

20.) Aside from your native language, how many different languages can you speak fluently? (Please enter a number. If you only speak one language, enter 0)

21.) Aside from your native language, how many different languages have you studied for a period of at least three months? (Please enter a number. If you have never studied a language for at least three months, enter 0)

22.) Have you ever traveled outside of your birth country?

- Yes
- No

23.) Other than your birth country, how many countries have you visited? (Please enter a number. If you have never been outside of the country you were born, enter 0)

24.) What is the longest period of time you have spent outside of your home country (the country in which you currently live) at one time?

- Less than a month
- 1-3 months
- 3-6 months
- 6 months- 1 year
- 1-5 years
- Over 5 years
- I have never been out of the country

25.) In which country were you born?

26.) Outside of the country in which you were born, which countries have you visited? (Please write each country separated by a comma. If you have not been out of the country in which you were born write "None")

27.) How open are you to trying food from other cultures?

- Not at all
- Slightly
- Moderately
- Extremely

28.) Have you ever watched a movie or television show in a language other than your native language?

- Yes
- No

29.) Select all of the music genres you have ever listened to before today.

- Classical
- K-Pop

- [ ] Rap
- [ ] Jazz
- [ ] African Beats
- [ ] Indian
- [ ] Tropical
- [ ] Reggae
- [ ] Latin

30.) Please rate how much each of the following statements is or is not like you.

| | Strongly disagree | Somewhat disagree | Neither agree nor disagree | Somewhat agree | Strongly agree |
|---|---|---|---|---|---|
| Enjoy the beauty of nature | ○ | ○ | ○ | ○ | ○ |
| Believe in the importance of art | ○ | ○ | ○ | ○ | ○ |
| Love to reflect on things | ○ | ○ | ○ | ○ | ○ |
| Get deeply immersed in music | ○ | ○ | ○ | ○ | ○ |
| Do not like poetry | ○ | ○ | ○ | ○ | ○ |
| See beauty in things that others might not notice | ○ | ○ | ○ | ○ | ○ |
| Need a creative outlet | ○ | ○ | ○ | ○ | ○ |
| Seldom gets lost in thought | ○ | ○ | ○ | ○ | ○ |
| Seldom daydream | ○ | ○ | ○ | ○ | ○ |
| Seldom notice the emotional aspects of paintings and pictures | ○ | ○ | ○ | ○ | ○ |

31.) What is your relationship status?

- ○ Single
- ○ Married
- ○ Partnered, not married

- Widowed
- Divorced

32.) What is the highest level of education reached by your family members? Check the appropriate box for each.

| | No College | Some College | Bachelor's Degree | Master's or Professional Degree | Doctorate | Not Applicable |
|---|---|---|---|---|---|---|
| You | | | | | | |
| Any Parent/Guardian | | | | | | |
| Any Sibling | | | | | | |
| Partner/Spouse | | | | | | |

33.) How would you describe your political views?

- Very Conservative
- Conservative
- Moderate
- Independent/Neither
- Liberal
- Very Liberal
- Other (Specify):

34.) What is your gender?

- Male
- Female
- Transgender
- Other (Specify):

35.) As of today, how old are you? (Please enter a number)

36.) What is your ethnicity? (Check all that apply)

- Western European

- ☐ African American
- ☐ North African
- ☐ South African
- ☐ East African
- ☐ Central African
- ☐ West African
- ☐ American Indian or Alaskan Native
- ☐ East Asian (e.g., Chinese, Korean)
- ☐ South East Asian (e.g., Filipino, Vietnamese)
- ☐ South Asian (e.g., Indian)
- ☐ Arab
- ☐ Native Hawaiian or other Pacific Islander
- ☐ Mexican, Chicano
- ☐ Caribbean
- ☐ Latin American (e.g., Puerto Rican, Cuban)
- ☐ Other Spanish, Hispanic, Latino

37.) What was the racial make-up of the school you spent the most time at?

- ○ I was the only one of my race/ethnicity
- ○ A few of my race, mostly one other race
- ○ A few of my race, a wide mix of other races
- ○ Half of my race, half another race
- ○ Half of my race, half a mix of other races
- ○ Mostly my race, a few of another race
- ○ Mostly my race, a few mix of other races
- ○ All of my race/ehtnicity
- ○ I did not attend school

38.) What is the highest level of education you hope to attain?

- ○ Undergraduate Degree
- ○ Master's Degree
- ○ Divinity Degree

- Law Degree
- Medical or related Degree
- Doctorate
- I do not plan to attend college

39.) How many hours a week do you generally work in a paid employment position(s)? (Please enter a number)

40.) In which region did you spend the majority of your adolescence?

- U.S.- Northeast
- U.S.- Northwest
- U.S.- Mid-Atlantic
- U.S.- Midwest
- U.S.- South
- U.S.- Southeast
- U.S.- West
- U.S.- Southwest
- Central Africa
- East Africa
- North Africa
- South Africa
- West Africa
- Central America
- South America
- East Asia
- South Asia
- Southeast Asia
- Australia
- Canada
- Caribbean
- Eastern Europe

- Northern Europe
- Southern Europe
- Middle East
- Mexico
- Pacific Islands
- Russia

41.) How would you best characterize the current city/town in which you live?

- Rural
- Urban
- Suburban

42.) In terms of your current country of residence, how would you classify your family income?

- Poor
- Working Poor
- Working Class
- Middle Class
- Wealthy
- Prefer not to answer

43.) How many siblings do you have? (Please enter a number)

44.) Do your parents/family own or rent their home?

- Own/Mortgage
- Rent/Lease
- Other

45.) Has your family ever taken a vacation?

- No
- Yes, once
- Yes, occasionally
- Yes, regularly

46.) Have you ever taken a family vacation abroad?

- No
- Yes, once
- Yes, more than once

47.) Thank you for participating in this survey. We are looking at the relationship between people's music preferences, or willingness to listen to a variety of types of music, and their openness to socio-cultural experiences. We believe that the more open you are to one of these things, the more open you will be to the other. The more open someone is to either music or cultural experiences may also mean they have a more open-minded personality.

Below is your random survey code. Copy and paste this code into MTURK in order to receive your compensation. Then continue to the next page to end the survey.