

Judging a Book by its Album Cover: A Study of the Relationship Between Musical Preference and Personality

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The purpose of this study was to explore the relationship between musical preference and personality. Despite an overall lack of research on this psychological aspect of music, a wide array of studies have indicated a strong relationship between musical preference and personality, income, criminality, and various other personal characteristics. Upon reviewing this related literature, it is clear that musical preference can be used as a reasonably good predictor of one's personality. Furthermore, it is also clear that musical preference can often reveal a great deal about an individual's lifestyle. This study investigated the relationship between musical preference and personality among first-year undergraduates at Vanderbilt University. By collecting, analyzing, and comparing data from 20 first-year undergraduates, correlations between specific personality and musical preference dimensions were calculated. The strength and nature of these correlations proved to be in general agreement with prior research. Furthermore, it was established that there was no statistically significant difference ($p < .05$) in these relationships between male and female subjects.

The presence of music in modern society is both overwhelming and undeniable. Moreover, it has come to the point that music is essentially unavoidable. Music emanates through our coffee shops, grocery stores, and in many cases, even our churches. In addition to music's importance in numerous social events such as weddings and parties, we even have events that revolve entirely and exclusively around music itself (Rentfrow & Gosling, 2002). Music has been used as entertainment, propaganda, and even therapy. Furthermore, music's importance is evidenced in a gamut of cultures and occurs in people of essentially all races, ages, and socioeconomic backgrounds, and has occurred throughout history. In today's popular culture, musical preferences actually seem to be a part of one's identity, as people often associate fans of particular genres with corresponding personality traits.

With all this in mind, it is clear that music has an important role in mankind. Yet, despite this popularity, there is relatively little research regarding the psychology behind musical preferences. In fact, "of the nearly 11,000 articles published between 1965 and 2002 in the leading social and personality journals, *music* was listed as an index term (or subject heading) in only seven articles" (Rentfrow & Gosling, 2002, p. 1236). Moreover, "an activity that consumes so much time and resources and that is a key component of so many social situations warrants the attention of

mainstream social and personality psychologists" (Rentfrow & Gosling, 2002, p. 1236). Despite this overall lack of studies, there is still a meaningful and insightful body of research on this generally underrepresented psychological aspect of music. Moreover, there are a number of studies that focus specifically on the relationship between musical preference and numerous personal characteristics. These studies may help us understand how accurately one's musical preference can predict his or her personality.

Music's Popularity and Beliefs

Despite the prevalence of television and the Internet, music still holds an important share of popular media. It is clear that music remains a meaningful part of the lives of people of all ages. For example, in a study of 2065 adolescents in the United States, it was revealed that children between the ages of 8 and 13 devote roughly 18% of their daily media time to tapes, radio, and CDs, while children between 14 and 18 devote roughly 27% (Roberts, 2000). In a similar study of 2465 secondary school students between 13 and 14 years old in North Staffordshire, England, it was determined that the students listened to an average of 2.45 hours of music every day (North, Hargreaves, & O'Neill, 2000). This same study concluded, "Music is of central importance in the lives of most young people, fulfilling social and emotional as well

as cognitive needs” (North et al., 2000, p. 269). To put things into perspective, one might wonder how this time relates comparatively to other activities. In fact, one study did exactly that. This research reported: “Between Grades 7 and 12, the typical adolescent spends over 10,000 hours listening to music, an amount of time similar to that spent in class by the time they graduate from high school” (Davis, 1985; Mark, 1988, as cited by Schwartz & Fouts, 2004, p. 205). Music is clearly very important in the lives of adolescents.

In the first of six studies entitled “The Do Re Mi’s of Everyday Life: The Structure and Personality Correlates of Music Preferences,” Rentfrow and Gosling investigated the lay beliefs about music’s importance and significance. In this study, 74 University of Texas at Austin undergraduates were asked to rank how important eight activities were to them and to what extent these leisure preferences reveal information about personal qualities (Rentfrow & Gosling, 2002). The results revealed that music and hobbies were both considered the most important leisure activities with the difference between them being insignificant (Rentfrow & Gosling, 2002). Furthermore, music and hobbies were also considered to reveal the most information about one’s personality and personal qualities, over preferences for TV programs, movies, books and magazines, food, bedrooms, and clothing (Rentfrow & Gosling, 2002). In summary, this study suggests that music is both very important for college students and is thought to be very telling about an individual’s personality. However, the small sample size makes the study vulnerable to error.

Definitions of Personality

Personality is defined as “the set of psychological traits and mechanisms within the individual that are organized and relatively enduring and that influence his or her interactions with, and adaptations to, the intrapsychic, physical, and social environments” (Larsen & Buss, 2008, p. 4). Psychological traits are defined in the same textbook as “characteristics that describe ways in which people are different from each other” (Larsen & Buss, 2008, p. 6). Moreover, these traits describe average tendencies of their possessor, such as a high-talkative person starting more conversations than a low-talkative person. This text also distinguishes psychological mechanisms as being processes of personality that typically have three key

components: inputs, decision rules, and outputs (Larsen & Buss, 2008). Overall, personality is influenced by a combination of a wide array of variables, including biological factors, social factors, motives, and emotions, among others. Generally speaking, personality can be viewed as a combination of features that define a person’s psychological and social nature.

There are numerous theories regarding personality and even more methods of operationalizing and evaluating it. Due to the obviously personal nature of this subject, self-report data is the most common method for personality measurement (Larsen & Buss, 2008). This is true of the majority of studies on music and personality. In a similar study, for example, the instrument chosen for personality evaluation was the Big Five Inventory, a 44-item assessment that covers five general personality domains (Rentfrow & Gosling, 2002). This measure was formatted with each item being rated on a 5-point Likert-type scale. Other personality assessments in this study included the Personality Research Form, the Social Dominance Orientation Scale, and the Brief Loquaciousness and Interpersonal Responsiveness Test.

Similar studies employed a number of other personality instruments. In one study, researchers used the Millon Adolescent Personality Inventory, an instrument comprised of 150 true–false statements that allow for analysis over 20 scales relating to personality and developmental issues (Schwartz & Fouts, 2004). Yet, in a very similar study, the classic Myers Briggs Type Indicator, or MBTI, was employed (Pearson & Dollinger, 2003). The MBTI categorizes an individual based on four dichotomies: Extraversion–Introversion, Sensing–Intuition, Thinking–Feeling, and Judging–Perceiving (Myers, McCaulley, Quenk, & Hammer, 1998, as cited by Pearson & Dollinger, 2004).

Musical Preference and Personality

Numerous studies have uncovered a strong relationship between musical preference and personality traits. For example, one of the aforementioned studies revealed such a relationship in 175 adolescents from two schools in Canada (Schwartz and Fouts, 2004). For personality assessment, the participants were given the Millon Adolescent Personality Inventory, or MAPI. To measure musical preference, participants were presented with thirteen general qualities of music and asked

to rate their enjoyment of music with such qualities on a 5-point Likert scale (Schwartz & Fouts, 2004). From these results, participants were placed into one of three general music preference groups: heavy music listeners, light music listeners, and eclectic listeners (Schwartz & Fouts, 2004).

Upon comparing the combined scores of the MAPI with music preference and applying the Wilk's criterion, the researchers found that the MAPI and music preference "were significantly related" (Schwartz & Fouts, 2004, p. 209). Among the relationships that this study identified were that "Adolescents preferring heavy music were significantly more tough-minded and overly assertive in their relationships with others (Forceful scale) and significantly less concerned and indifferent to the feelings and reactions of others (Social Tolerance scale) than those preferring light music" (Schwartz & Fouts, 2004, p. 210). Moreover, heavy music listeners were also "more moody, pessimistic, overly sensitive, and discontented" (Schwartz & Fouts, 2004, p. 210). In contrast, "Adolescents preferring light music were significantly overly responsible, rule-conscious, and conforming in their relationships with others (Respectful scale) than those preferring heavy music or having more eclectic music tastes" (Schwartz & Fouts, 2004, p. 210). Each general group of adolescents with similar musical preferences had respectively different MAPI scores for twelve of the twenty MAPI scales (Schwartz & Fouts, 2004). Here again we see a clear and strong connection between musical preference and personality traits. However, the small sample size of this study is a limitation. In addition, the results are only generalizable to adolescents.

Many other studies have come to similar conclusions (Rentfrow & Gosling, 2002; Pearson & Dollinger, 2003; Delsing, Ter Bogt, Engels, & Meeus, 2008). One of the most comprehensive studies on musical preference and personality types concluded that there was a "fascinating pattern of links between music preferences and personality, self-views, and cognitive ability" (Rentfrow & Gosling, 2002, p. 1248). Through utilizing over 3,500 college-aged participants, this study divided musical preference into four distinct dimensions: "Reflective and Complex, Intense and Rebellious, Upbeat and Conventional, and Energetic and Rhythmic" (Rentfrow & Gosling, 2002, p. 1244). The researchers then compared participants' musical preferences with personality traits. They found that the "Intense and Rebellious" preference was positively correlated with "Openness to New Expe-

riences, athleticism, self-perceived intelligence, and verbal ability" (Rentfrow & Gosling, 2002, p. 1249). The "Upbeat and Conventional" dimension, on the other hand, was positively related to "Extraversion, Agreeableness, Conscientiousness, conservatism, self-perceived physical attractiveness, and athleticism" (Rentfrow & Gosling, 2002, p. 1249). Next, the "Energetic and Rhythmic" dimension was positively related to "Extraversion, Agreeableness, blurtatiousness, liberalism, self-perceived attractiveness, and athleticism" (Rentfrow & Gosling, 2002, p. 1249). Finally, the "Reflective and Complex" dimension was positively correlated with "Openness to New Experiences, self-perceived intelligence, verbal (but not analytic) ability, and political liberalism" (Rentfrow & Gosling, 2002, p. 1248). From the results of this study, one can see how musical preference can help predict a person's characteristics.

In a similar study, scores of 104 undergraduates at Southern Illinois University on the Myers Briggs Type Indicator and a Musical Preference Scale consisting of 73 questions were compared (Pearson & Dollinger, 2003). The results showed that intuitive people were more likely to prefer jazz, soul, funk, and classical music, than sensation-seeking people (Pearson & Dollinger, 2003). Moreover, extraverts were identified as having a wider array of music preferences than introverts, as well as having a particular taste for popular and rock music (Pearson & Dollinger, 2003). However, this study did have two general limitations. First of all, the sample was relatively small and was not randomly selected. Secondly, the Music Preference Scale did not include hip-hop or rap music, so the results are not as up to date as they could be.

Musical Preference and Lifestyle

In addition to a strong relationship between musical preference and general personality, there also exists a similar relationship between musical preference and lifestyle characteristics. More specifically, there has been some research investigating the use of musical preference as an indicator of social level. For example, one study suggests that people with different musical preferences could likely be differentiated based on characteristics related to social class (North & Hargreaves, 2007b). This research concludes, "significantly different lifestyles can be identified among the fans of different musical styles in early 21st century British society" (North & Hargreaves, 2007b, p. 488). This same

study also identifies a significant correlation between musical preference and numerous other lifestyle characteristics, including living arrangements, values, travel, income, health, and education (North & Hargreaves, 2007b).

Furthermore, additional research suggests that musical preference can also be used as an indicator of drug use (Forsyth, Barnard, & McKeganey, 2006; Rentfrow and Gosling, 2002). In particular, fans of rave music were deemed to be extremely likely to have used drugs of any kind (Forsyth et al., 2006). Expanding on this theme, there has also been evidence that criminality in general is strongly related to musical taste. In a study conducted in the United Kingdom’s East Midlands, 14.1% of surveyed hip hop/rap fans had been arrested, as compared to only 1.6% of surveyed current pop chart fans (North & Hargreaves, 2007a). Moreover, 67.2% of DJ based music reported committing an arrestable act, compared to 17.9% of musicals fans (North & Hargreaves, 2007a). This relationship could very likely be the result of common psychological characteristics for fans of certain music genres. In fact, research identifies a significant correlation between musical preference and scores on the Sensation Seeking Scale, or SSS, after controlling for musical education background (Little & Zuckerman, 1985). People with high SSS scores are likely to seek excitement and take risks, behavior that is generally indicative of drug users. However, in concluding that the relationship between criminality and musical preference has an exclusively psychological explanation, one ignores a possible confounding variable: the influence of lyrics. It is likely that listeners of certain genres listen to the specific genre because they can relate to the lyrics. With this in mind, the presence of criminality in rap/hip-hop listeners found by North and Hargreaves (2007a) could likely be the result of the emphasis on criminality in rap/hip-hop lyrics, as opposed to some underlying neurological cause.

Overall, there are numerous studies that support a strong relationship between musical preference and personality. However, the vast

majority of such studies focus on either adolescent or college-aged participants. As a result, their findings are not likely to be generalizable to people of all ages. Despite this and various other limitations, the general consensus is that musical preference is indeed strongly correlated with personality characteristics, at least for adolescents and college students. In addition, there are also an array of studies that support a similar relationship between musical preference and lifestyle. If nothing else, these two general relationships help support one another. Personality clearly affects lifestyle, so it should not be surprising that musical preference can also indicate lifestyle. With all of this in mind, we can see that one’s musical preferences can be helpful in determining information about him or her. Although conclusions about a person based solely on musical preference can and will often be incorrect, it is clear that musical preference can definitely aid in predicting conclusions about one’s personality and general lifestyle. Obviously, not all classical music fans are wealthy, and there are always going to be a few lawyers who rock out to heavy metal, but there still seems to exist a generally strong relationship between the music someone listens to and his or her personal characteristics.

Purpose

Numerous studies have explored the relationship between musical preference and personality traits. These studies have been conducted with various different populations, methods, and instruments, but have all come to relatively similar conclusions. However, research on this subject has ignored possible differences in this relationship between males and females. To this end, the purpose of this study was to both examine this relationship in college students and determine if this relationship is different for males and females. The hypothesized relationships between specific musical preferences and personality dimensions were created based on previous research and are

	Reflective & Complex	Intense & Rebellious	Upbeat & Conventional	Energetic & Rhythmic
Extraversion	Moderate (-)	Moderate (+)	Strong (+)	Strong (+)
Agreeableness	Moderate (-)	Strong (-)	Strong (+)	Moderate (+)
Conscientiousness	Moderate (+)	Moderate (-)	Strong (+)	Moderate (+)
Emotional Stability	Moderate (+)	Moderate (-)	Moderate (-)	Moderate (-)
Openness to Experiences	Strong (+)	Strong (+)	Moderate (-)	Moderate (+)

Table 1. Hypothesized Relationships.

found in Table 1. The specific questions of this study were:

1. What is the relationship between musical preference and personality traits for first-year students at Vanderbilt University?
2. Do the strength and nature of this relationship differ for male and female first-year students at Vanderbilt University?

Method

The explicit goal of this research was to observe musical preferences and personality traits for first-year students at Vanderbilt University. With this in mind, the sort of study needed was one that would describe this relationship numerically in order to answer the aforementioned questions. Accordingly, a nonexperimental quantitative research design was implemented. With regard to the question of the relationship between musical preferences and personality traits, a correlational approach was taken. With regard to the question of difference in the strength and nature of this relationship between male and female subjects, a comparative study was implemented.

Population and Setting

This study was conducted at Vanderbilt University, a private four-year university with approximately 6000 undergraduate students. The specific population in this study was first-year undergraduate students at Vanderbilt for the 2008-2009 school year. According to Vanderbilt University's Office of Undergraduate Admissions (2008), this class originally included 1,569 students, of which 47% were female and 53% were male. The exact number of these students has likely changed since original enrollment, but not in a way that would significantly affect the generalizability of this study's results.

Sample

The data used in this study were collected exclusively from students who lived in Sutherland Hall, a dormitory reserved for first-year students. According to Vanderbilt University's Office of Housing and Residential Education (2007), Sutherland Hall houses 162 students, with two floors of males and two floors of females. The housing selection is, for the most part, random, so it is reasonable to conclude that this dormitory houses a relatively representative sample of first-year students

at Vanderbilt.

Nonprobability sampling was utilized in order to obtain subjects. More specifically, quota sampling was employed. The sample was intended to be representative of all first-year students at Vanderbilt University, so the need for a 50% male and 50% female sample was established. Subjects were selected from students in the study lounge on each floor of Sutherland Hall around 9 P.M. on a Thursday night. Potential subjects were approached individually and asked if they would mind completing a short survey for a research project. If they complied, they became subjects in the study. The first ten males asked complied. For females, however, it took thirteen requests to collect ten participants. With the subjects' compliance, the survey was administered to them and collected immediately upon their completion. The total sample was comprised of twenty first-year students, with ten males and ten females. The gender distribution of this sample serves two major purposes. Primarily, this distribution allows for comparing the results based on gender. Secondly, this distribution is representative of the entire first-year class at Vanderbilt.

Instruments

TIPI. A modified version of the Ten Item Personality Inventory or TIPI was utilized in order to measure personality. This instrument was created in order to provide a very short yet accurate measurement of the Big-Five personality dimensions: Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to New Experience. The TIPI was designed by Gosling, Rentfrow, and Swann (2003) and underwent extensive testing for validity and reliability. Upon comparing the TIPI to the 44-question Big Five Inventory, the correlation between the results was extremely high. In fact, the correlations between each instrument's measurement of each of the five dimensions were all between .65 and .87 (Gosling et al., 2003). This indicates high validity. In this same study, the TIPI was administered to the same subjects twice, with six weeks between administrations. Upon comparing the results, the test-retest correlation was calculated to be .72 (Gosling et al., 2003). This high correlation suggests very high reliability. The only modification made to this instrument was converting it to a 5-point Likert scale instead of a 7-point scale.

The version of the TIPI utilized in this study asks subjects to numerically measure the extent to which a set of two traits applies to him or her from 1

to 5, where 1 represents “strongly disagree,” 5 represents “strongly agree,” and 3 represents “neither agree nor disagree.” The inventory is composed of 10 questions of this sort. Once completed by the subject, the TIPI results are used to calculate the respective subject’s score for each of the Big-Five personality dimensions.

STOMP. The Short Test of Musical Preference, or STOMP, was utilized in order to measure musical preference. The STOMP was developed in an effort to “identify the basic dimensions of music preferences” (Rentfrow & Gosling, 2002, p. 1241). This instrument divides musical genres into four major dimensions: Reflective and Complex, Intense and Rebellious, Upbeat and Conventional, and Energetic and Rhythmic (Rentfrow & Gosling, 2002). Regarding reliability, upon administering the instrument to a group of subjects, and then administering it again to that same group of subjects after three weeks, the STOMP showed test-retest correlations of .77, .80, .89, and .82 for the four dimensions, respectively (Rentfrow & Gosling, 2002). In designing this test, researchers attempted to create a method of dividing music preferences into four separate, measurable dimensions. The test was developed through three independent studies involving numerous different subjects, methods, and settings (Rentfrow & Gosling, 2002). With this in mind, the test seems to be respectably valid.

Like the TIPI, the version of the STOMP used in this study was modified to a 5-point Likert scale.

In terms of design and content, the STOMP is very much like the TIPI. The STOMP asks participants to numerically record how strongly they like or dislike particular genres, where 1 represents “strongly dislike,” 5 represents “strongly like,” and 3 represents “neither like nor dislike.” After a subject has completed the STOMP, the researcher can calculate the specific subject’s score for each of the four musical dimensions mentioned above.

Data Analysis

Through administering and collecting the TIPI and STOMP, an enormous amount of data was collected. After scoring each test for each subject, all of subjects’ scores for the Big-Five personality dimensions and four musical preference dimensions were compiled into one chart. This chart served as the compilation of all the data that was used in further analysis and is displayed in Table 2.

In light of the first research question, correlations were calculated between all of the individual personality dimensions and musical preference dimensions for all of the subjects in the study. In order to better explain this process, we must walk through it, so to speak. First of all, the correlation between all of the subjects’ scores for the personality dimension “Extraversion” and the musical preference dimension “Reflective and Complex” was calculated. Next, the correlation between “Extraversion” and “Intense and Rebellious” was calculated. After this, the correlation between “Extraversion” and

Sex	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Openness to Experiences	Reflective & Complex	Intense & Rebellious	Upbeat & Conventional	Energetic & Rhythmic
M	1.5	2.5	3.5	4	3	3.25	2.666666667	2.25	2.666666667
M	3	4	3.5	4	3.5	4.5	3.666666667	3.5	2.666666667
M	5	3	3.5	4.5	5	3.75	4.333333333	2.5	3
M	2.5	2	2.5	5	5	4.75	3.333333333	2.75	3
M	3	1.5	5	4	4	4.25	4.333333333	2	3.333333333
M	2	4	3	3.5	2.5	2.75	3.666666667	3	3
M	2.5	3	2.5	3.5	3.5	2.25	4	2.5	3
M	2	4	4	4	3.5	3	3	3.5	3.333333333
M	3	4	4	4	4	4	4	2	2.666666667
M	2.5	4	4.5	4.5	4	3.75	4	3.75	4
F	3.5	3.5	3.5	1.5	5	2.25	4	3.5	4.333333333
F	3.5	4	4	3.5	4	3.25	3.333333333	3.25	3
F	5	4	4	4	4	3	4	3.75	2.333333333
F	4.5	4	3.5	4	3.5	2.5	3.666666667	4	4.333333333
F	4	3.5	4	4	3	3	2.666666667	3.75	4.333333333
F	3.5	4	1.5	2.5	4.5	4.75	3	2.5	3.666666667
F	3.5	2.5	4	3.5	4	4	3.333333333	3.25	3.666666667
F	3.5	4.5	4.5	4	4.5	3.25	2	4	4
F	4.5	3.5	4	4	3.5	2.5	2.666666667	4	3.666666667
F	3.5	3	3.5	4	3.5	3	2	4	3

Table 2. Compilation of All Subjects’ Scores for All Music and Personality Dimensions.

“Upbeat and Conventional” was calculated, and so on until all personality dimensions were correlated with all musical preference dimensions. The resulting data was compiled in a 5 x 4 table.

With regard to the second research question, a similar approach to analysis was taken. For this task, the same correlations mentioned above were calculated. This time, however, instead of using all of the subjects, the correlations were calculated for the male subjects and the female subjects separately. Next, the correlations were compared in order to determine if they are statistically significantly different. In order to do so, however, both of the correlations were first transformed using the Fisher r-to-Z transformation. With these transformed data, an independent two-sample t-test was employed in order to assess the statistical significance of the difference in each correlation coefficient for the male and female subjects. Fisher’s transformation is designed to work with independent samples. With regard to the first research question, the subjects were treated as one sample of the entire population of first-year undergraduates at Vanderbilt. But, given the facts that there was an equal number of male and female subjects and that they were selected independently of each other, they were treated as two different samples for this statistical test. In essence, the 10 males were treated as a sample of all male first-year undergraduates at Vanderbilt, and the 10 females were treated as a sample of all female first-year undergraduates at Vanderbilt. As this is an instance of two different groups being measured on one variable, these are indeed two independent samples.

Results

As found in prior studies, a strong relationship between certain musical preferences and personality dimensions was revealed upon analysis. The correlations in Table 3 show these specific relationships. For the entire sample of males and females, 7 of the 20 calculated correlations had an absolute value greater than .25. The strongest correlation, roughly .5, was between Agreeableness and Upbeat and Conventional music. Upbeat and Conventional music also showed strong positive correlations with Extraversion and Conscientiousness (.39 and .26, respectively). Reflective and Complex music also showed a number of strong correlations. Specifically, it had correlations of -.27, .29, and .38 with Agreeableness, Emotional Stability, and Openness to New Experiences. Energetic and Rhythmic music only had one correlation with an absolute value greater than .25, which was -.32 with emotional stability. Intense and Rebellious music had no strong correlations with any of the personality dimensions.

The separate correlations calculated for the male and female subjects are shown in Table 4a and 4b. As seen here, these correlations differed in a number of ways from the correlations calculated for the entire sample of males and females combined. In general, the correlations for each sex were much stronger than the correlations for the entire group of subjects. However, based on a surface-level observation of the data, it appears as if the general trends in correlations were different for males and females. After comparing these correlations for statistical significance, two-tailed p-values were calculated and compiled in Table 5. None of these p-values were below 0.05.

	Reflective & Complex	Intense & Rebellious	Upbeat & Conventional	Energetic & Rhythmic
Extraversion	-0.140793488	0.078107451	0.385683054	0.209414729
Agreeableness	-0.273669357	-0.147324582	0.498848133	0.162943447
Conscientiousness	-0.133525332	0.034999537	0.264898551	0.13916353
Emotional Stability	0.287768865	-0.063946971	0.012879713	-0.32246934
Openness to Experiences	0.384278313	0.247190137	-0.14103344	0.129703715

Table 3. *Correlations for All Subjects*

	Reflective & Complex	Intense & Rebellious	Upbeat & Conventional	Energetic & Rhythmic
Extraversion	0.347064529	0.725262198	-0.19228665	-0.038110797
Agreeableness	-0.292264866	-0.049289664	0.608907725	0.057166195
Conscientiousness	0.278238027	0.280513158	-0.005364341	0.480035102
Emotional Stability	0.716598572	-0.014538631	0.132340749	0.255739079
Openness to Experiences	0.615124685	0.398019336	-0.154172307	0.160422237

Table 4a. Correlations for Male Subjects.

	Reflective & Complex	Intense & Rebellious	Upbeat & Conventional	Energetic & Rhythmic
Extraversion	-0.419134057	0.373514139	0.440528952	-0.251339743
Agreeableness	-0.057710096	0.017415023	0.039211918	0.014197615
Conscientiousness	-0.563397785	-0.111058227	0.722396432	-0.057006873
Emotional Stability	-0.109359195	-0.445513984	0.601875423	-0.290564567
Openness to Experiences	0.204937322	0.303594848	-0.455719022	0.041250999

Table 4b. Correlations for Female Subjects.

	Reflective & Complex	Intense & Rebellious	Upbeat & Conventional	Energetic & Rhythmic
Extraversion	0.131	0.3271	0.2113	0.6818
Agreeableness	0.6455	0.9045	0.2113	0.9362
Conscientiousness	0.0836	0.4533	0.0854	0.2757
Emotional Stability	0.0588	0.3843	0.2937	0.2937
Openness to Experiences	0.3421	0.8415	0.5287	0.8181

Table 5. p-values Calculated from Two-Sample t-test.

Discussion

The findings of this study support the existence of a strong relationship between musical preference and personality traits among first-year students at Vanderbilt University. A number of strong correlations between various personality traits and musical preference dimensions were uncovered after comparing the scores of 20 subjects on the TIPI and STOMP. Overall, the existence of these relationships was in general agreement with the prior research on this subject (Rentfrow & Gosling, 2002; Pearson & Dollinger, 2003; Delsing, Ter Bogt, Engels, & Meeus, 2008). Of the 20 correlations calculated, 7 had an absolute value greater than .25. This equates to 35% of the calculated correlations having an absolute value greater than .25. Although .25 may seem small, correlations of this strength correspond to a medium-to large effect size (Lubinski & Humphreys, 1997).

In a very similar study by Rentfrow and Gosling (2002), the correlations were between the

same variables. However, in this study, only 5% of these calculated correlations had an absolute value greater than .25 (Rentfrow & Gosling, 2002). Regardless, the overall trends in correlations were generally the same. In fact, only a few correlations from the present study differed drastically from Rentfrow and Gosling’s 2002 study. Specifically, the strong positive correlation between Agreeableness and Reflective and Complex music, Emotional Stability and Reflective and Complex music, were not seen in Rentfrow and Gosling (2002). In addition, the strong negative correlation between Emotional Stability and Energetic and Rhythmic music found in this study was also not seen in Rentfrow and Gosling (2002). With these exceptions aside, the general relationship between personality traits and musical characteristics found in this study were very similar to Rentfrow and Gosling’s 2002 study. Furthermore, the general nature and strength of the correlations found in this study were relatively similar to those of the hypothesized correlations in Table 1.

This study also showed that the difference in

correlations for male and female subjects were not statistically significantly different. Upon observing the data in Table 5, we see that none of the t-tests resulted in a two-tailed p-value less than .05. From this we gather that the relationship between musical preference dimensions and personality traits does not statistically significantly differ between male and female first-year students at Vanderbilt University. No previous research was conducted on this subject, so no comparison to other studies can be made.

With all this in mind, the overall findings of this study were limited due to the sampling method employed. Subjects were not selected randomly, which affects how representative the sample was of the entire population of first-year Vanderbilt students. The timing of the sampling and survey administration was a limitation as well. The survey was administered at around 9 o'clock on a Thursday night near the end of the semester. At this time, a significant portion of the student population with similar characteristics could have been outside the dorm. Along these same lines, there may possibly be shared characteristics of students who choose to study in the lounge on their hall. As a result, the sampling could have likely resulted in not including a portion of the intended population in the sample. However, 20 subjects is an acceptable sample size, and the inhabitants of the dorm were originally selected randomly. With this in mind, it should be made clear that the results from this study are likely not exceptionally generalizable to the entire population. Rather, it is likely that the results are adequately generalizable. More samples would obviously show slightly different results, but, given the general agreement of this study's results with prior research, it is safe to say that the results would not differ drastically. Moreover, it must be made clear that generalizing these results to any population other than first-year students at Vanderbilt University should be done with caution, as Vanderbilt students likely share a number of characteristics, such as age and general socioeconomic status. One must also be aware that the observed correlations do not in any way imply causality. More appropriately, these correlations merely represent relationships. Given the fact that surveys were used, some may contend that response bias was present. However, considering the emotionally neutral nature of the research subject, it is unlikely that subjects answered survey questions according to what they believe the researcher was looking for. In conclusion, with sampling aside, this research is

free from limitations.

Overall, this study's findings were in agreement with prior research on the topic. Strong relationships were discovered between musical preference and personality traits, with most of the specific relationships being very similar to those in prior research. Furthermore, it was revealed that these relationships were not statistically significantly different for male and female subjects. For further research, larger samples should be utilized. In addition, random sampling should be employed in order to overcome the limitations of this study. For research applicable to a more general population, more comprehensive and diverse samples should be employed.

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