

“You Are What You Listen To”:

**The relationship between personality,
perceived creativity and musical preference**

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PSY3815L

Submitted in partial fulfilment of the requirements of the Bachelor of
Arts degree (Psychology) at DBS School of Arts, Dublin.

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April 2012

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ACKNOWLEDGEMENTS

I would very much like to thank my supervisor, Patricia Frazer, for her extensive help and support throughout this entire final year project process, without her understanding, generosity of time and general effortless cool, completion of this project would not have been possible. Thanks Trish, I honestly couldn't have asked for a better supervisor.

Furthermore I would like to thank my family, specifically my grandmother Frieda and late grandfather Michael, for their inspiration, motivation, overwhelming generosity and unwavering support. They are the sole reason I was even afforded the opportunity to take part in this final year research project and finish my degree in psychology.

Thank you Nan and Gang, I will never forget it.

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ABSTRACT

The purpose of this study was to examine the relationship between personality, perceived creativity and musical preference. The guiding research questions included an exploration of the strongest contributors to the development of musical preference, specifically concerning the personality dimension scales of psychoticism and extraversion/introversion, perceptions of creativity as well as musical expertise/training. Through the use of online questionnaires, an un-biased, self-selecting sample of 165 participants was used; both quantitative and qualitative data was collected. Analysis of the data revealed that perceived creative capacity predicted a preference for reflective & complex music, however it did not for upbeat & conventional music. Music professionals were found to display significantly higher levels of perceived creative capacity as well as preference for reflective & complex music than non-music professionals. No significant relationship was found between personality dimensions and musical preference. The findings partly supported and partly contradicted previous research.

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Chapter 1: Introduction

General Introduction

Music is a ubiquitous social phenomenon, having been found in every known human culture both past and present (Farnsworth, 1967). At any moment millions of people worldwide are experiencing music in its many forms, whether it be in the privacy of their own homes, offices and cars or in public domains such as restaurants, retail stores and shopping centers. Research has found individuals reported listening to music during approximately 14% of their waking lives and more often than any other activity across a vast range of contexts (Mehl & Pennebaker, 2003; Rentfrow & Gosling, 2003). Music is also at the center of a wide array of social activities and cultural events, such as concerts and festivals, where people congregate to listen to and talk about music, as well as birthdays, weddings, funerals and religious services, where music is not the primary focus but nevertheless an essential aspect. It is the most "valued" form of entertainment for young people (Bahanovich & Collopy, 2009) and in 2011 it was reported the worldwide music industry generated revenue upwards of €50 billion. Music stands in sharp contrast to most other enjoyable human behaviors (e.g. eating, sleeping, talking, sex) in that it yields no obvious benefits to those who partake of it, yet it is still held in such high regard which is significant.

However, despite its central role in human culture and prevalence in daily life, the sound of music has remained relatively mute within social and personality psychology. "So powerful is the effect of music . . . that one is surprised to find in the history of psychology and psychotherapy so little experimental, or even speculative, reference to the use of music" (Cattell & Saunders, 1954, p. 3). 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. There is currently a growing concern within social and personality psychology regarding the lack of

attention being paid to real-world behaviour (e.g., Funder, 2001; Hogan, 1998; Mehl & Pennebaker, 2003; Rozin, 2001) and that the breadth of topics studied by many research psychologists is too narrow and discounts many central aspects of daily life that are worthy of scientific attention, such as music. For example, Funder (2001) noted that although an abundance of information currently exists regarding the structure of personality, “the catalog of basic facts concerning the relationships between personality and behaviour remains thin” (p. 212). One’s personality may be partly defined through the activities and s/he is engaged in regularly, therefore considering the findings of previous research one can make the inference that the music people listen to may tell us a great deal of info about their personality.

A growing body of research has identified links between music and social behaviour (Hargreaves & North, 1997; North, Hargreaves, & McKendrick, 1997, 2000) therefore understanding musical preference in relation to an individual’s personality traits, characteristics and social tendencies may prove beneficial in a number of instances (i.e. marketing campaigns, identifying consumer buyer behaviour, etc.). Music has become an interesting entity, which can reveal insights into aesthetic judgments, social behaviour and emotional processes (LeBlanc, 1982). For instance, music has been used as a valuable instrument in the investigation of aesthetic perception (Berlyne, 1971, 1974), interactive behavior of individuals within groups (Salganik, Dodds & Watts, 2006), developmental processes in adolescents (Arnett, 1995; Larson, 1995; Schwartz & Fouts, 2003), expression and induction of emotions (Juslin & Laukka, 2003, 2004), and the mapping of reward processes in the human brain (Blood & Zatorre, 1999, 2001).

Music may also satisfy a number of needs beyond its social context and intrinsic entertainment value as preferences also appear to be shaped by self-views (e.g. perceived creative capacity). Theorists concerned with social identity have highlighted that the social environments that individuals select serve to reinforce their self-views

(Buss, 1987; Gosling, Ko, Mannarelli, & Morris, 2002; Snyder & Ickes, 1985; Swann, 1987; Swann, Rentfrow & Guinn, 2002), and findings suggest that the music people can serve a similar function. Previous research detailing that people believed their music preferences revealed a substantial amount of information about their own personalities as well as the self-views and the personalities of others (Rentfrow & Gosling, 2003). Music preferences can play an important role in everyday contexts of social perception, as music is a common topic of conversation among strangers engaged in the task of getting to know one another (Rentfrow & Gosling, 2003, 2006).

The culmination of the findings presented in these studies are important because they suggest that there is a clear, robust, and meaningful structure underlying musical preference as well as further substantiate the view that music plays an integral role in people's everyday lives and therefore is an important facet of the human experience. Therefore the present research is designed to extend theory and research into people's everyday lives by examining individual's music preferences. By exploring some determinants of music preferences and their links to personality, ability/training and self-views, we can gain a more comprehensive understanding of personality and human behaviour.

Literature Review

A multitude of factors interact and contribute to the development of music preferences. Aside from social ties, personality, self-views, and cognitive abilities could all have roles to play in the formation and maintenance of music preferences (Rentfrow & Gosling, 2003). Individuals might seek out styles of music based on how pleasing they sound, which may be influenced by factors such as auditory aesthetics and cognitive processes (Rentfrow & Gosling, 2006). They might seek out regulation of their arousal levels - one might use music in order to maintain a level of calmness or alertness. Individuals might also use music to make identity claims (North & Hargreaves, 1999; Rentfrow & Gosling, 2006); for example, intellectual people might listen to complex music because it projects an image of sophistication (e.g. the Reflective & Complex dimension) whereas individuals with a conservative self-view preferred conventional styles of music (e.g. the Upbeat and Conventional dimension) (Rentfrow & Gosling, 2006). Music can also be used to make other-directed identity claims (Gosling et al., 2002). That is, individuals might select styles of music that allow them to send a message to others about who they are or how they like to be seen; for instance, individuals may listen to heavy metal music at a loud volume with their car windows rolled down in order to convey an image of “toughness”. Evidence for other-directed identity claims has been provided by research suggesting that people use music as a badge for others to see (North & Hargreaves, 1999). Thus, music preferences may operate at different levels, both reinforcing how one sees oneself and sending messages to others. Music may also be used as a method of social comparison; the kind of music someone displays a preference for may determine how others perceive him or her. It is used as a form of social identity and one can infer a great deal of information by simply by ascertaining one’s musical preference. Individuals' music preferences may convey consistent and accurate messages about their personalities, most likely because the

attributes of the music preferences and music genre stereotypes can influence observers' impressions of trait, values, and affect (Rentfrow & Gosling, 2006). Furthermore, many stereotypes about the fans of various music genres were shown to possess a kernel of truth (Rentfrow & Gosling, 2007).

The significance/merit of music in the everyday lives of people depends on the uses they make of it and the degree to which they engage with it, which are in turn dependent on the contexts in which they hear it. A variety of factors have been shown to influence musical preference, which can be divided into four groups; the music, the listener, the context and the use of music.

The Music

Preferences for musical sound are dependent on the characteristics of the music, many characteristics account for the variance of musical preference. For certain individuals, a piece of music may be preferred when it is played at a comfortable level of *loudness* (Cullari & Semanchick, 1989), when it has a moderate *tempo* (Kellaris, 1992) and an optimal level of *complexity* (Berlyne, 1971, 1974; Heyduk, 1975; North & Hargreaves 1996) and when it is at a moderate level of familiarity (Jaobovits, 1966), for example the general public's preference for "pop music" (i.e. radio plays). Moreover, the listener should be able to categorize a particular musical piece as exemplary of a specific music genre or style (Martindale & Moore; 1989). Appreciation of music is also dependent on *performance quality* (Radocy, 1976) as well as the type of *media* in which the music is presented (Rose & Wagner, 1995). Musical sounds convey *referential meanings*: mode, rhythm, harmony and melody are associated with certain schemas and emotional content, which sequentially influence music appreciation (Finnas, 1989; Jungberle, Verres & DuBois, 2001)

The Listener

Characteristics of music, such as complexity, indicate a higher preference when they are at an “optimal” level. However what the term “optimal” means is dependent on the characteristics of the listener: age, gender, personality, socio-economic status, music ability and training (i.e. whether s/he is a music professional or not). Cognitively complex individuals tend to prefer complex aesthetic stimuli; less cognitively complex individuals tend to prefer simple aesthetic stimuli (Barron, 1955; France`s, 1976; Kammann, 1966). The relationship between intelligence and preference for complex music supports this previous work and suggests that the optimal level of stimulation for highly intelligent individuals is produced by complex music whereas the optimal level of stimulation for less intelligent individuals is produced by comparatively simpler music. If music preferences are partially determined by personality, self-views, and cognitive abilities, then knowing what kind of music a person likes could serve as a clue to his or her personality, self-views, and cognitive abilities. People with a higher degree of musical ability/training tend to prefer more complex music, suggesting they are more “intelligent” in there are of expertise (North & Hargreaves, 1995), which is also a finding consistent with the complexity theory (Berlyne, 1971, 1974): Increased musical ability/training goes along with decreased subjectively perceived complexity, musical knowledge increases over life-span, but also with training, thus the subjective complexity of heard musical pieces decreases, affecting perception, preference and levels of arousal associated with the music.

The significance of music in people’s life seems to increase until adolescence and then decrease over life-spam (Mende, 1991, Hargreaves, North & Tarrant, 2006). Evidence suggesting musical preference develops in accordance with personality during formative years, thus strengthening the significance of the relationship between musical preference and personality. Holbrook & Schindler (1989) showed people keep

preferring music that was popular when they were between 20-25 years old, indicating that this is the critical time of establishing a stable music preference (North & Hargreaves, 2002). Therefore if one was able to establish an individual's musical preference, they may be able to make insights into their personality.

The music a listener displays a preference for has been shown to be a reflection of their personality in several respects. Those who score high on the sensation seeking personality trait prefer more arousing music (Arnett, 1991; McNamara & Ballard, 1999), conservative people dislike rock and rap music (Lynxwiler & Gay, 2000), individuals who enjoy listening to Reflective & Complex music tend to be inventive, have active imaginations, value aesthetic experiences, consider themselves to be intelligent and reject conservative ideals and those who prefer Upbeat & Conventional music are socially outgoing, see themselves as physically attractive and tend to be relatively conventional (Rentfrow & Gosling, 2003), while extraversion is associated with preference for pop music (Rawlings & Ciancarelli, 1997). Creativity is a significant aspect of personality, it may determine one's career, interests, hobbies, preferences, etc., and although some research studying the relationship between personality and musical preference has briefly mentioned creativity as an aspect of personality, no great deal of emphasis had been placed on it, especially regarding musical preference (which one would expect it would have a great deal to do with). Furthermore strong links have also been found between personality and creativity, specifically levels of creativity and high scores on the psychoticism dimension of personality (Eysenck, 1993; 1994; 1995). Eysenck defined creativity as the process of over-inclusive/allusive thinking, common to both psychotic and creative thinking. Studies of eminent individuals, concerning links between creativity and psychopathology, found this was explained by common information-processing patterns (i.e. wide associative horizons) (Hemsley, 1991) as well as hypersensitivity to stimuli

and low levels of inhibition (Martindale, 1981,1989,1999), both of which may influence the development of one's musical preference. However to date very little research has been conducted concerning the relationship between musical preference and personality dimensions, while no research has focused on the perceived creativity of individuals which may be more relevant and useful, for instance in marketing practice.

Further research concerning the connection between socio-economic status/lifestyle and music preferences is rare and 'much of the existing research is outdated, and it is possible that the taste publics no longer exist in many western societies' (North & Hargreaves, 2008 p.106). Nevertheless, recent studies by North & Hargreaves (2007) revealed, for instance, that fans of sophisticated music (e.g. classical) had higher incomes and higher levels of education, while fans of rap or electronic music tended to have a lower socio-economic status. This is possible evidence for environmental influences and cultural context playing a role in determining musical preference (i.e. exposure to music through parental, peer and societal groups). This information may prove useful in a variety of contexts, specifically marketing, as a method of reaching a specific target-audience or sub-culture of society through the use of music and knowledge of their musical preference. According to Mark's (1998) ecological theory of music preference, when a musical form is created, it will tend to be localized in the social space where it originated, because people who are similar in socio-demographic characteristics (e.g. age, education, occupation, social status, ethnicity) are more likely to interact with each other than people who are dissimilar. A musical preference spreads through social network ties, and the so-called musical "niche", the region in social space where that type of music is most popular, persists through this selective "recruitment" of fans. One historical example is the development of blues music by African-Americans after the US Civil War. These people all lived in the south, were of the same ethnicity, and almost all were agricultural laborers (Jones, 1963, as cited in Mark, 1998). These

findings may be beneficial to the music and marketing industries (i.e. sales, consumer buyer behaviour, etc.). Knowing what music each specific sub-group of the population has a preference for will better industry executive's knowledge of the marketplace they are attempting to sell into (i.e. what music to market towards what sub-group, where they frequent – what clubs, bars, record stores, websites - and how to get into contact with them in an attempt to push up-and-coming artists).

The Context

Interaction between the listener and the music highly depends on the context/situation in which it takes place: presence of other people, the concrete situation, simultaneously ongoing activities, and cultural context. Two theoretical approaches regarding the interaction between context and musical preference: The Arousal Based Model (Konecni, 1982; developed the theory of Berlyne, 1971, 1974) and Idea of Appropriateness. In Berlyne's complexity theory the arousal elicited by a stimulus determined how pleasing this stimulus should be perceived. Konecni, suggested that there is another source of arousal in the concrete situation, which will be added to the arousal induced by the stimulus. Hence, which music is preferred in a particular situation depends on its associated arousal level: in situations associated with low levels of arousal (e.g. driving on an empty motorway) we may prefer to listen to more complex or arousing music, whereas in situations associated with high levels of arousal (e.g. studying) we may prefer to listen to more simply structured calm music or avoid listening to music at all (Konecni & Sargent-Pollock, 1976; North & Hargreaves, 2000).

Nevertheless, the arousal-based approach was unable to determine why people sometimes enjoy listening to low-arousing music in situations that are not arousing themselves or *visa versa*. Therefore, there must be another mechanism at work that explains what we like to hear in particular situations. (E.g. At a wedding we like to

listen to a different style of music than if we were at a funeral, independent of its arousal potential) (North & Hargreaves, 1996, 2000). Furthermore, our musical preference is embedded in our cultural environment (Merriam, 1964) hence the cultural background and ethnicity of a listener may influence the perception of and consequently preference for musical pieces or styles (Tekman & Hortacsu, 2002).

The Use of Music

There are a variety of functions music can serve to the listener including those of; emotional, cognitive and cultural. A theory of music preferences should also explain how individuals make use of music. One possibility is that individuals use music as a means of regulating their emotions in everyday life. Music can be used to elicit as well as maintain pleasant emotions or to mitigate and change negative emotions depending on situational factors (e.g. when feeling melancholy some individual's may listen to upbeat music, while others may listen to more lethargic, sad music) (Juslin & Laukka, 2004, 2004; Saarikallio & Erkkila, 2007).

The cognitive functions of music refer to its use in communication and self-reflection (e.g. expression of social identity, values and beliefs) that may able individuals to connect with people through places or activities that are associated with music (Arnett, 1995; Hargreaves & North, 1999; Hargreaves, North & Tarrant, 2006; North & Hargreaves, 1999; Steele & Brown, 1995; White, 1985). Music may also be used to express identity and values of whole cultures (e.g. the music of Bob Dylan and Bob Marley) (Frith, 1996; Merriam, 1964; Tekman & Hortacsu, 2002), of subcultures (Baacke, 1993; Rill, 2006) or even the personalities of other people (Rentfrow & Gosling, 2006). Adolescence especially have been shown to use music to define their own subculture (Baacke, 1993; Rill, 2006), possibly due to the fact that musical

preference develops in accordance with personality and is at its most significant during the formative years.

Rationale

Although a growing body of research has identified strong correlates between music preferences and personality, the majority of studies have only briefly mentioned creativity as an aspect of personality rather than an independent determinant of musical preference. Research specifically exploring the influence of creative capacity in conjunction with personality is virtually non-existent. Strong links have also been found between personality and creativity, specifically levels of creativity and psychoticism (Eysenck, 1993; 1994; 1995). Furthermore musical preference appears to be shaped by as well as reinforce self-views (Rentfrow & Gosling, 2003), therefore a significant relationship between perceived creative capacity and musical preference is predicted. Additionally, to date the predominant amount of research exploring the relationship between music preference and personality has been based on traits (i.e. openness to experience, conscientiousness, extraversion, agreeableness, neuroticism) (Costa, P. T., Jr. & McCrae, R. R., 1992) rather than dimensions of personality (i.e. psychoticism, extraversion and neuroticism) (Eysenck, H. J. & Eysenck, S. B. G., 1975), which when coupled with creative capacity may be more accurate.

Berlyne's complexity theory (1971, 1974) states that increased musical ability/training is associated with a decrease in subjectively perceived complexity, as musical knowledge increases with training the subjective complexity of heard musical pieces decreases, affecting perception, preference and levels of arousal associated with the music. People with a higher degree of musical ability/training prefer more complex music (North & Hargreaves, 1995) therefore it is predicted that music professionals will

display a preference for Reflective & Complex music. Moreover, the music industry as part of Howkins' creative economy (Howkins, 2001) is creative by nature and those who work within it equally creative due to the nature of their work, 'those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property' (DCMS, 2001). Thus it is also predicted that music professionals will score higher on perceived creative capacity than non-music professionals.

Therefore the purpose of this study is to determine whether personality dimensions coupled with perceived creative capacity will significantly predict musical preference as well as to establish whether there is a difference between perceived creative capacity, personality dimensions and musical preference in music professionals and non-music professionals. This investigation will be conducted in the hope to further advance study regarding the origin of musical preferences as well as the influential factors which form it, specifically dimensions of personality and perceived creativity capacity.

Hypotheses

Open-Questions

Does an individual's personality influences the type of music they listen to?

Does an individual's perceived creative capacity influences their musical preference?

What is the strongest influence on musical preference?

Does experience in music, musical training or ability influence musical preference (e.g. music professionals vs. non-music professionals)?

Do music professionals perceive themselves to be more creative than non-music professionals?

Do music professionals tend to be of a specific personality type?

Are more creative people predisposed to prefer a specific type of music? (i.e. are people who prefer more complex musical styles such as classical and jazz more creative?)

Are certain personality types more likely to be creative and does this have an effect on their taste in music?

Hypotheses

Hypothesis 1: Perceived creative capacity and psychoticism will predict a preference for reflective & complex music.

Hypothesis 2: Perceived creative capacity and extraversion/introversion will predict a preference for upbeat & conventional music.

Hypothesis 3: Music professionals will display higher levels of psychoticism and perceived creative capacity than non-music professionals.

Hypothesis 4: Music professionals will display a greater preference for reflective & complex music, as opposed to intense & rebellious, upbeat & conventional and energetic & rhythmic music, than non-music professionals.

Chapter 2: Methodology

Participants

The population was made up of an un-biased, self-selecting sample with no restrictions on age, gender, nationality or locality. Participants were recruited through the use of online questionnaires, which were distributed via a variety of social media outlets, including Facebook, Twitter, LinkedIn as well as e-mail.

205 people responded to the questionnaire, of which 99 were males (48.3%) and 106 females (51.7%). The participants ranged from 15 to 57 years of age, the average age was 23.7 years (SD= 7.915). However, 41 participants had to be disqualified due to their lack of ability to fully complete the questionnaires. Of the sample, 164 participants were used, 78 male (47.6%) and 86 female (52.4%), 17 of which were music professionals (10.4%) and the remaining 135 non-music professionals (89.6%), 12 did not provide any information regarding a profession in music.

Design

A mixed-design study was employed, using partly correlational and partly quasi-experimental methods.

Correlational:

A correlational design was used in order to assess if there was a significant relationship between the variables.

The predictor variables were: Personality Dimensions (psychoticism and extraversion/introversion) and Perceived Creative Capacity

The criterion variable was: Musical Preference, assessing the music-preference dimensions of Reflective & Complex, Intense & Rebellious, Energetic & Rhythmic and Upbeat & Conventional.

Quasi-Experimental:

A quasi-experimental design was used in order to assess if there was a significant difference between the variables.

The independent variables were: Personality Dimensions (psychoticism), Perceived Creative Capacity, Musical Preference Dimensions (Reflective & Complex, Intense & Rebellious, Energetic & Rhythmic and Upbeat & Conventional)

The dependent variables were: Music Professionals vs. Non-Music Professionals

Materials

This study was conducted using a confidential online questionnaire (See Appendix A), which included five sections:

1) Demographic Info

At the beginning of the questionnaire, participants were asked to state whether they were male or female (by ticking the appropriate box) as well as their age. This information was gathered to ensure the sample population was relatively equal in the percentage of male and female participants and well as determining the range in/mean age of the sample population.

2) Short Test Of Musical Preference-Revised (STOMP-R), Rentfrow & Gosling (2003)

The STOMP-R is a 23-item measure assessing preferences in music genres, namely: Alternative, Bluegrass, Blues, Classical, Country, Dance/Electronica, Folk, Funk, Gospel, Heavy Metal, International/Foreign, Jazz, New Age, Oldies, Opera, Pop, Punk, Rap/Hip-Hop, Reggae, Religious, Rock, Soul/R&B and Soundtracks/Theme Song.

Preference for each genre is rated on a 7-point Likert-type scale with endpoints at 1 (Not at all) and 7 (A great deal). It consists of four scales and assesses preference for four broad music-preference dimensions: Reflective & Complex, Intense & Rebellious, Energetic & Rhythmic and Upbeat & Conventional. Higher scores indicate greater preference for each the musical dimensions.

3) Creativity Styles Questionnaire-Revised (CSQ-R), Kumar, Kemmler & Holman (1997)

The CSQ-R consists of 8 scales, of which two were used: Kumar and Holman's Global Measure of Creativity Capacity and Use of the Senses. The reason for this is that, combined with the additional two questionnaires (i.e. STOMP-R and EPQ-R), the time it would have taken participants to complete all three would have been too long causing logistical problems. Furthermore the supplementary seven scales were of no relevance to the specific focus of this study and therefore not needed. Kumar and Holman's Global Measure of Creativity Capacity scale consists of two items, and measures the extent to which a person perceives him/herself to be creative. Higher scores on the scale are reflective of higher perceived creativity. Alpha reliability for this scale was found to be .76. The Use of the Senses scale consists of five items, and measures the extent to which a person uses the five senses for creative work. Higher scores indicate greater use of the senses. Alpha reliability for this scale was found to be .76. The questionnaire uses a 5-point scale with Strongly Agree (1), Agree (2), Unsure (3), Disagree (4) and Strongly Disagree (5).

4) EPQ-R, Eysenck & Eysenck (1975)

The EPQ-R consists of 3 scales, measuring three major dimensions of personality that account for most of the variance in personality specifically; Psychoticism, Extraversion/Introversion and Neuroticism. It is a 48-item questionnaire, which uses a

2-point scale requiring either a YES or NO answer. The EPQ-R is an excellent choice when administering a test battery and need a brief instrument representing the personality domain. Higher scores indicate a higher level of association within each of the scales. Alpha reliability for this scale was found to be .52.

5) Open Questions

Qualitative research was conducted using 4 open-ended questions as well as one closed question using a 2-point scale, which required either a YES or NO answer, at the end of the questionnaire. These questions were asked in order to obtain specific personal accounts of the general public's views on the topics dealt with in the study. Participants were instructed to answer each of the following questions to the best of your ability:

Q.1 Do you feel your personality influences the type of music you listen to? And if so, why?

Q.2 Do you feel the creativity of an individual influences the type of music he/she listens to? And if so, why?

Q.3 What do you feel most influences your musical preference?

Q.4 Are you a music professional? (YES or NO)

Q.5 If 'YES', what is your current position (e.g. musician, DJ, music executive) and what type of training have you received?

Procedure

Participants were invited to take part in the study via a link to an online questionnaire and brief message requesting their cooperation (See Appendix 2). Once the link was followed participants were met with the cover page, once again requesting their cooperation in completing the subsequent questionnaires, explaining the voluntary and confidential nature of the questionnaires and providing contact details if necessary (See Appendix 1). Upon filling in basic information (gender and age), participants were

instructed to indicate basic musical preference for various genres using the 7-point scale provided. Then participants were issued a number of statements and asked to decide how well the statement applies to them and respond by using the 5-point scale provided. Following this participants were requested to answer a series of YES or NO questions by ticking the appropriate box. Finally, participants were presented with a number of open questions and asked to answer to the best of their ability. Participation in this section was voluntary and participants were able to leave blank if they saw fit. In the following weeks all completed questionnaires were downloaded into an excel document and the information was uploaded to SPSS. Once the information was uploaded, the raw data was prepared for analysis, then a number of the tests were carried out and the necessary statistics were extracted.

Chapter 3: Results

Descriptive Statistics

Both quantitative and qualitative research was conducted to test the hypotheses:

Hypothesis 1: Perceived creative capacity and psychoticism will predict a preference for reflective & complex music.

Hypothesis 2: Perceived creative capacity and extraversion/introversion will predict a preference for upbeat & conventional music.

Hypothesis 3: Music professionals will display higher levels of psychoticism and perceived creative capacity than non-music professionals.

Hypothesis 4: Music professionals will display a greater preference for reflective & complex music, as opposed to intense & rebellious, upbeat & conventional and energetic & rhythmic music, than non-music professionals.

Table 1: Descriptive Statistics for Personality Dimensions, Perceived Creative Capacity and Musical Preferences

| Variable | Mean | SD |
|------------------------------------|-------------|-----------|
| Perceived Creative Capacity | 7.64 | 1.826 |
| Personality Dimension: | | |
| Psychoticism | 9.29 | 1.260 |
| Extraversion/Introversion | 9.37 | 1.622 |
| Musical Preference: | | |
| Reflective & Complex | 33.96 | 7.535 |
| Intense & Rebellious | ~ | ~ |
| Upbeat & Conventional | 27.27 | 5.454 |
| Energetic & Rhythmic | ~ | ~ |

* *p* significant at .05 level

Table 1 (above) illustrates the means and standard deviations of all variables dealt with in this study, these include; perceived creative capacity, the personality dimensions of psychoticism and extraversion/introversion as well as the musical preference dimensions of reflective & complex, intense & rebellious, upbeat & conventional and energetic & rhythmic.

Inferential Statistics

This was a mixed-design study consisting of two categories:

- 1) Correlational
- 2) Quasi-experimental

Quantitative Data

1) Correlational

Table 2: Predictors of musical preference

| Predictor | Musical Preference | | | | | |
|-----------------------------|---------------------------------|----------|----------------|----------------------------------|----------|----------------|
| | Reflective & Complex | | | Upbeat & Conventional | | |
| | Adj. r² | β | p-value | Adj. r² | β | p-value |
| <i>Test 1:</i> | | | | | | |
| Perceived Creative Capacity | .032 | .201 | .011* | ~ | ~ | ~ |
| Psychoticism | | .063 | .424 | ~ | ~ | ~ |
| <i>Test 2:</i> | | | | | | |
| Perceived Creative Capacity | ~ | ~ | ~ | -.009 | -.012 | .879 |
| Extraversion/Introversion | ~ | ~ | ~ | | .067 | .418 |

* *p* significant at .05 level

Table 2 (above) demonstrates the results of the correlational research carried out concerned with the various predictors of musical preference.

Hypothesis 1: Perceived creative capacity and psychoticism will predict a preference for reflective & complex music.

Multiple regression was used to test whether perceived creative capacity and psychoticism were predictors of a preference for reflective & complex music. The results of regression indicated that the two predictors explained 3.2% of the variance ($r^2 = .032$, $F(2, 156) = 3.59$, $p = .03$). It was found that perceived creative capacity significantly predicted a preference for reflective & complex music, however psychoticism did not.

Tests of correlations between variables (perceived creative capacity & psychoticism {- .018}), coefficients (tolerance & VIF) and variance proportions denounced any indications of multicollinearity. Beta scores (see Table 2) show perceived creative capacity $\{\beta = .201, p = .011\}$ to make a significantly greater contribution to predicting preference for reflective and complex music than psychoticism $\{\beta = .063, p = .424\}$. Further tests were run to ensure all assumptions were being met including; that the data was normally distributed, control for outliers, linear relationship between the variables, confirming the assumptions.

Hypothesis 2: Perceived creative capacity and extraversion/introversion will predict a preference for upbeat & conventional music.

Multiple regression was used to test whether perceived creative capacity and extraversion/introversion were predictors of a preference for upbeat & conventional music. The results of regression indicated that the two predictors explained -0.9% of the variance ($r^2 = -.009, F(2, 154) = .33, p = .720$). It was found that perceived creative capacity and extraversion/introversion did not predict a preference for upbeat & conventional music.

Tests of correlations between variables (perceived creative capacity & extraversion/introversion {.197}), coefficients (tolerance & VIF) and variance proportions denounced any indications of multicollinearity. Beta scores (see Table 2) show extraversion/introversion $\{\beta = .067, p = .418\}$ to make a greater contribution to predicting preference for upbeat & conventional music than perceived creative capacity $\{\beta = -.012, p = .879\}$. Further tests were run to ensure all assumptions were being met including; the data was normally distributed, control for outliers, linear relationship between the variables, confirming the assumptions.

2) *Quasi-experimental*

Table 3: An independent samples t-test table displaying the differences between perceived creative capacity, psychoticism and musical preferences for music professionals and non-music professionals

| Variables | Groups | Mean | SD | t | df | p-value |
|------------------------------------|---------------|-------------|-----------|----------|-----------|----------------|
| Perceived Creative Capacity | Music Pro | 8.88 | 1.576 | -3.189 | 150 | .002* |
| | Non-Music Pro | 7.42 | 1.802 | | | |
| Psychoticism | Music Pro | 9.73 | 1.100 | -1.489 | 146 | .139 |
| | Non-music Pro | 9.22 | 1.287 | | | |
| Musical Preference: | | | | | | |
| Reflective & Complex | Music Pro | 37.53 | 8.032 | -2.151 | 150 | .033* |
| | Non-Music Pro | 33.38 | 7.433 | | | |
| Intense & Rebellious | Music Pro | 16.50 | 7.519 | 1.045 | 149 | .298 |
| | Non-Music Pro | 17.70 | 4.264 | | | |
| Upbeat & Conventional | Music Pro | 29.00 | 7.519 | -1.229 | 149 | .221 |
| | Non-Music Pro | 27.30 | 4.896 | | | |
| Energetic & Rhythmic | Music Pro | 25.38 | 5.097 | .885 | 149 | .377 |
| | Non-Music Pro | 26.45 | 4.541 | | | |

* *p significant at .05 level*

Table 3 (above) displays the differences in perceived creative capacity, personality (specifically scores on psychoticism) and the musical preference dimensions of reflective & complex, intense & rebellious, upbeat & conventional and energetic & rhythmic.

Hypothesis 3: Music professionals will display higher levels of psychoticism and perceived creative capacity than non-music professionals.

Music professionals (mean= 8.88, SD= 1.576) were found to display higher levels of perceived creative capacity than non-music professionals (mean= 7.42, SD= 1.802). The 95% confidence limits show that the population mean difference of variables lies somewhere between -2.365 and -.556. An independent samples t-test found there was a statistically significant difference between the perceived creative capacity of music professionals and non-music professionals ($t(150) = -3.19$, $p = .002$). Therefore the null can be rejected.

Music professionals (mean= 9.73, SD= 1.100) were found to display higher levels of psychoticism than non-music professionals (mean= -9.22, SD= 1.287). The 95% confidence limits show that the population mean difference of variables lies somewhere between -1.199 and .169. An independent samples t-test found that there was no statistically significant difference between the psychoticism scores of music professionals and non-music professionals. Therefore the null cannot be rejected.

Hypothesis 4: Music professionals will display a greater preference for reflective & complex music, as opposed to intense & rebellious, upbeat & conventional and energetic & rhythmic music, than non-music professionals.

Music professionals (mean= 37.53, SD= 8.032) were found to display greater preference for reflective & complex music than non-music professionals (mean= 33.38, SD= 7.433). The 95% confidence limits show that the population mean difference of variables lies somewhere between -7.965 and -.338. An independent samples t-test found there was a statistically significant difference between preference for reflective & complex music in music professionals and non-music professionals ($t(150) = -2.15$, $p = .033$). Therefore the null can be rejected.

A further three independent samples t-tests were carried out but found there was no statistically significant differences between preferences for intense & rebellious, upbeat & conventional and energetic & rhythmic music in music professionals and non-music professionals (See Table 2). Highlighting the significance of the relationship found between music professional and preference for reflective & complex music.

Additional tests were carried out to ensure all assumptions were being met including; the data was normally distributed and equal variances were assumed, which confirmed the assumptions.

Qualitative Data

Considering there is very little research in the field of music psychology, particularly concerning the origins of musical preference, further qualitative research was conducted (in the form of open-ended questions) in order to enrich the quantitative data and provide specific personal accounts of the general public's views on the matter. The following are a number of general themes that seemed to emerge during the process of data collection; these have been broken down into 4 categories, relating to each of the individual open-ended questions included in the questionnaires:

Q1. Do you feel your personality influences the type of music you listen to?

Although the majority would agree that personality influences musical preference, participants put a variety of other possibly influential factors forward. The most common of which included; mood, environment, musical experience/training, life experiences & associations, personality traits, state of mind/time in life (e.g. early teens/adulthood), meaningful music (i.e. contains a message, relatable and emotionally evocative), conformity/individualism and identity.

Q2. Do you feel the creativity of an individual influences the type of music s/he listens to?

Again although the majority would agree that the creativity of an individual influences their musical preference, participants put forward a range of other possibly instrumental elements. The most common of which included; the opposite, that rather than influencing, music actually plays an instrumental role in eliciting creativity (i.e. acts as a source of inspiration), personality traits associated with creativity (e.g. open-

mindedness), used to make identity statements, used to satisfy 'creative thirst', sensitivity to music/appreciation of skills and used in emotional expression.

Q3. What do you feel most influences your music preference?

The most common responses given by participants included; mood, environment (i.e. situation/atmosphere), level of musical experience/training, the instrument one plays, the music itself (i.e. quality/depth/purpose), exposure during childhood, life experiences & associated memories (i.e. nostalgia), social influences (i.e. friends/peers/partners musical preference), societal influences (e.g. socio-economic/ethnic background), relate-ability to the music, availability and in one instance... drugs.

Q4. Are you a musical professional? If yes, what is your current position and what type of training have you received?

Participants gave a wide and varied number of responses ranging from sound engineer to entertainer as well as including; having studied classical music (RIAM), singer/songwriter, musician, composer, DJ, music executive as well as classically trained viola and violinist.

Chapter 4: Discussion

Findings

The aim of this study was to determine whether personality dimensions coupled with perceived creative capacity would significantly predict musical preference as well as to establish whether there was a difference in perceived creative capacity, personality dimensions and musical preference between music professionals and non-music professionals. Therefore the following was hypothesized:

Hypothesis 1: Perceived creative capacity and psychoticism would predict a preference for reflective & complex music.

Hypothesis 2: Perceived creative capacity and extraversion/introversion would predict a preference for upbeat & conventional music.

Hypothesis 3: Music professionals would display higher levels of psychoticism and perceived creative capacity than non-music professionals.

Hypothesis 4: Music professionals would display a greater preference for reflective & complex music, as opposed to intense & rebellious, upbeat & conventional and energetic & rhythmic music, than non-music professionals.

Quantitative data analysis found:

1. High scores on perceived creativity capacity significantly predicted a preference for reflective & complex music, however not for upbeat & conventional.
2. Music professionals were found to display significantly higher levels of perceived creative capacity than non-music professionals.
3. Music professionals were found to display a significantly greater preference for reflective & complex music, as opposed to intense & rebellious, upbeat & conventional or energetic & rhythmic, than non-music professionals.

Qualitative data analysis seemed to infer that mood is a stronger influential factor when it comes to choosing a certain style of music in the moment (i.e. tempo, feel-something they can engage with) “Yes, I like music I feel I can relate to depending on the mood I'm in.”/“I find myself matching music with my mood”, consistent with past findings (Finnas, 1989; Jungberle, Verres & DuBois, 2001), whereas personality appears to play a more instrumental role in determining an individual's archetype of musical preference (i.e. genre, artists they mostly like to listen to) “...music is so subjective and ultimately your tastes and preferences - whether it be in music or other interests - are always going to be a reflection of one's personality”, “... within a certain genre there are obviously different styles which you like listening to when you are in a certain mood”, also further substantiating previous findings (Rentfrow & Gosling, 2003). Individuals use music in different ways, some use music to alter their current mood (e.g. when feeling melancholy they will listen to upbeat music) while others use it to maintain their current mood (e.g. when feeling depressed they will listen to more lethargic, sad music) “Yes, sometimes I feel down and listen to ‘depressing’ music and sometimes I feel happy and listen to more upbeat music”, which validates past studies (Juslin & Laukka, 2004, 2004; Saarikallio & Erkkila, 2007). Many also seem to believe that the music they listen to accurately reflects their personality “... every individual has a unique personality therefore that persons’ taste in music would reflect their personality”, however their musical preference, like their personality, tends to change over time “Yes because personality changes with time and so can the music people listen to”. In regards to creativity, certain individuals seem to listen to specific types of music for inspiration (i.e. to boost creativity), suggesting a relationship between personality, creativity and musical preference, “...creatively I listen to other types of music that inspire me rather than sticking to a band or genre”/“Yes. I'm a creative person so I like music that has been created for a specific purpose and not just churned

out”.

Creativity is said to involve divergent thinking, in other words the linking of disparate ideas and forming connections between abstract concepts to create new/original work, which requires a level of open-mindedness, mental dynamism and progressive ideologies linked to certain personality types (Carole & Carol , 2008). Therefore it is perceived that the more creative an individual, the more open to new/unfamiliar styles of music s/he may be “I believe that people who feel more creative are more open to listening to many various genres of music”, “...creative/ artistic people are usually linked with alternative music”. Furthermore, it appears there is a perception that creative individuals are constantly searching for inspiration, of which music may be a source. Contrary to what is hypothesised some believe that music actually precedes/elicits creativity rather than an individuals creativity being the determining factor regarding musical preference, “..I feel music influences and inspires people to be creative”, “...in my experience, very creative people are always looking for inspiration, they wouldn't rule out listening to any type of music”, “I believe perhaps the more creative or musically inclined you are, the more likely you are to be open minded in regards with what you listen to. There's less genre discrimination and one is currently on the hunt for something new and inspiring, unrelated to one specific genre”. As the music industry is creative in it's nature and thus the individuals who work within it equally creative, it is predicted that the same individuals will have a certain level of musical knowledge/experience therefore requiring more complex music in order to be stimulated - must be stimulated on a deeper/more complex level to be satisfied (North & Hargreaves, 1995; Howkins, 2001), “Yes. If you are a creative person you need to feel and think, and some kind of music just keeps you paralyzed or just dancing and singing like a zombie”. Sensitivity to music and appreciation of instrumental and lyrical skills are alternative explanations for the development of musical preferences, it is perceived

that creative individuals can better identify intricacies within a musical piece, "... a creative person will actually feel the music in some way rather than just listen to it. I will know it 2 seconds if I like a song because I will feel something but it actually takes me several listens until I hear the words", "...Creative people can find other meanings in songs etc. ... So that might lead to them listening to rap or music with more lyrics", "...I feel creative people look for deeper meaning in song lyrics or they are influenced by their appreciation of an artist's singing or playing skills."

Situational factors, in other words what one is doing at the time of listening (e.g. in the gym: energetic/upbeat music, studying: minimal/instrumental music), are perceived to play a significant role in influencing musical preference on a moment-to-moment basis consistent with the arousal based model and idea of appropriateness theories (Konecni, 1982; Berlyne, 1971, 1974). However this may not be relevant in attempting to determine the origins of musical preference. Training and experience are also perceived to be determining factors in musical preference which validate previous research (North & Hargreaves, 1995); Berlyne, 1971, 1974), data collected suggesting a positive relationship between the level of training/experience with regards to music an individual has received and the complexity of the music they express a preference for - "...I'm very technical so I like technical music", "I suppose being a classical trained soprano I have an small insight. I know what I like, and I like real music, I like quality and depth and purpose in music, for example..and this is an extreme..but Nicki Minage would write extremely vain and selfish music as oppose to Lauryn Hill who write for a purpose and a cause". Furthermore, a culture of pretentiousness appears to be emerging amongst those "elitist music enthusiasts" who actively/purposefully dislike certain songs and artists due to their popularity as they prefer to be associated with more "underground" alternative music - "Yes, I like things that are different and not exactly

the norm in all aspects of my life, and I think this is reflective in the music I choose to listen to" these findings may be attribute to those who consider themselves music professionals.

Therefore the findings of this study have established both supporting and contradicting evidence in relation to what was hypothesised as well as previous research. *Hypothesis 1: Perceived creative capacity and psychoticism will predict a preference for reflective & complex music* was partly supported as perceived creative capacity predicted a preference for reflective & complex music however psychoticism did not. Contradicting evidence was found for *Hypothesis 2: Perceived creative capacity and extraversion/introversion will predict a preference for upbeat & conventional music* as neither perceived creative capacity nor extra/introversion predicted a preference for upbeat & conventional music. Partly supporting evidence was found for *Hypothesis 3: Music professionals will display higher levels of psychoticism and perceived creative capacity than non-music professionals* = (50% supporting) by way of a significant difference in perceived creative capacity between music professionals and non-music pros however there was not for psychoticism. Finally, *Hypothesis 4: Music professionals will display a greater preference for reflective & complex music, as opposed to intense & rebellious, upbeat & conventional and energetic & rhythmic music, than non-music professionals* was 100% supported, finding a significant difference in preference for reflective & complex music between music professionals and non-music professionals.

No significant relationship was found between perceived creative capacity and psychoticism, contrary to past findings of strong links being found between personality and creativity, specifically levels of creativity and psychoticism (Eysenck, 1993; 1994; 1995). Moreover no significant relationship was found between psychoticism and

reflective & complex music or extraversion/introversion and upbeat & conventional music, inconsistent with previous findings made by Rentfrow & Gosling (2003). Who stated individuals who enjoy listening to Reflective & Complex music (e.g. blues, jazz) tend to be creative/inventive, have active imaginations, value aesthetic experiences, consider themselves to be intelligent and reject conservative ideals (all characteristics of someone who scores high on the psychoticism scale), while those who prefer Upbeat & Conventional (e.g. pop, country) music are socially outgoing, see themselves as physically attractive and tend to be relatively conventional (all characteristics of someone who is an extravert, i.e. scores high on the extraversion/introversion scale) (Eysenck & Eysenck, 1975; Eysenck, 1993, 1994).

Perceived creative capacity significantly predicted a preference for reflective & complex music and did not for upbeat & conventional music as predicted, consistent with previous studies, which found individuals who enjoy, listening to Reflective & Complex music (e.g. blues, jazz) tend to be at ease, creative/inventive (Rentfrow & Gosling, 2003). Furthermore, music professionals displayed significantly higher levels of perceived creative capacity than non-music professionals, findings in support of previous research detailing the nature of the music industry as creative and thus those who work within it equally creative (DCMS, 2001). Music professionals also displayed greater preference for reflective & complex music, as opposed to the other music preference dimensions, than non-music professionals, supporting Berlyne's complexity theory (1971, 1974) which states that increased musical ability/training is associated with a decrease in subjectively perceived complexity, as musical knowledge increases with training the subjective complexity of heard musical pieces decreases, affecting perception, preference and levels of arousal associated with the music. People with a higher degree of musical ability/training prefer more complex music (North & Hargreaves, 1995).

Limitations

Firstly due to the self-selecting and convenient nature of the population sample, this study merely included a total of 17 music professionals (10.4%) versus 135 non-music professionals (89.6%). It would be advised that future research attempt to incorporate a larger sample of music professionals in order to gain a more comprehensive understanding of the difference between the two groups as well as further substantiate the significance of statistical findings. Moreover, the subjectivity involved in the question; *Are you a music professional?*, must be taken into consideration. In other words, a specific definition regarding what it is to be a music professional, for instance one must have obtained a certain level of training, spent x amount of years working in the industry or received payment for x amount of gigs in order to be eligible, may be required so as to eliminate any conjecture in the mind of the participant. Furthermore, some participants may not have technically taken music as a profession but may have received extensive instrumental training (e.g. guitar, piano, DJ) which may significantly affect their perception of /preference for music, and therefore would have been considered however did not answer YES to the question, this must also be taken into consideration. Hence a more sophisticated sample may be needed in the future for more accurate research. More emphasis may also be paid to the individual's use of music (i.e. mood altering/cathartic uses) as there seems to be a general perception that this is an important facet of musical selection and preference. Some people listen to all styles and contradicting types of music, therefore there may be some common underlying structure present in various styles of music (e.g. timbre, beat, rhythm, tempo, message, feel?) which future research may focus on. Additionally, it is the individual's perceived creativity (i.e. how creative they perceive themselves to be) as opposed to actually creativity that is being addressed in this study; therefore findings may not be contrary to previous research regarding the relationship between personality dimensions (i.e.

psychoticism) and levels of measureable creativity.

It would be instructive to do a longitudinal study and follow up with these same individuals in ten years and reassess their patterns of musical preference, in order to test the theory that musical preference develops simultaneously with personality, is shaped in formative years and persists throughout life span. For example, the consumption of rap music, primarily during the college years, when one's identity is being shaped, and the question of whether people continue to listen later in life would contribute to our understanding of how selective musical consumption shapes identity. Furthermore, retesting of individuals a decade later would enable researchers to test the hypothesised correlation between preference of complex music and age - preference for complexity increasing over life-span (Mende, 1991, Hargreaves, North & Tarrant, 2006).

Implications

Implications of the results and applications of this research are many and varied:

Theoretical Implications

Those who display a preference for reflective & complex music perceive themselves to be more creative than those who display a preference for upbeat & conventional music. The fact that perceived creative capacity significantly predicts a preference for reflective & complex and not for upbeat & conventional music is substantial as it further highlights the relationship between perceived creative capacity and reflective & complex music. This may also suggest that there is a conscious effort to prefer and listen to reflective & complex music on the part of the individual who perceives him/herself to be creative, this may be significant for use in music marketing by identifying consumer buyer behaviour. The relationship identified between music professionals, who have either received a certain level of musical training or maintain a certain level of experience/expertise, and preference for reflective & complex music may act as evidence suggesting that musical professionals have

the ability to better appreciate/understand more complex music, as opposed to the general public. This may be somewhat due to their levels of perceived creative capacity, which has been found to significantly predict a preference for reflective & complex music. These findings may also suggest that music professionals need music of a greater complexity than non-music professionals in order to be adequately stimulated/aroused.

Practical Implications

Findings of this research may be useful in a variety of contexts, Firstly for the industries of music and marketing, this new information may be used to better understand consumer buyer behaviour through the application of learned associations of perceived creativity, musical training and musical preference. Knowledge of personality traits and characteristics as well as self-perception will better able music executives to marketers and sell their music to their target markets. Gaining a deeper understanding of music in relation to the individual will further progress our ability to make more accurate judgments of people regarding their personality, preferences, behaviour, etc. with relatively little/accessible information. Therefore if used correctly, one may be able to access and interact with entire sub-cultures within society on a personal level, which has huge implications for many industries.

Even for someone as trivial as a local DJ, knowledge of these, and similar findings, may allow the individual to more accurately choose specific playlists for specific events, based on relationship between the cliental that are likely to be in attendance, their general collective personality and the style of music usually associated with said personalities using a filtration system comprising of, for instance, personality, mood, creativity and associated musical styles/artists.

Findings of this research may also benefit organisational psychologists, specifically those focused on the areas of recruitment & selection. Knowledge of musical preference

equates to a greater knowledge of personality characteristics, behaviour, social tendencies and creativity, which may be utilized to ascertain the personality of an individual and therefore where they may be best suited within company (i.e. to which department the potential employee would best excel in). Moreover, this knowledge may be used in the motivation of employees regarding incentives (e.g. gig tickets) and what specific style of music to be played in the workplace - differing styles of music depending on the specific department as personalities suited to specific jobs differ. Listening to music also affects the emotional and cognitive experience of an individual as well as physiological arousal (Labbé, Schmidt, Babin, & Pharr, 2007). Listening to specific, self-selected music or classical music, after exposure to a stressor, significantly reduces negative emotional states and physiological arousal compared to listening to heavy metal music or sitting in silence (Labbé et al., 2007) therefore knowledge of worker's musical preferences may positively affect productivity by talking the problem of stress in the working/office environment.

Finally, results uncovered by this study may be applicable to the disciplines of both social and counseling psychology, specifically directed towards adolescence in school and college. Knowledge of musical preference is associated with a greater knowledge of an individual's behaviour, both in a singular and social context, social tendencies and their greater social circle and thus activities associated with social groups, such as exposure to various experiences and substances (i.e. alcohol, drugs, etc.), likes/dislikes, personality traits (e.g. sensation seeking). Therefore with this knowledge psychologist may obtain a greater ability to "bridge the gap" between generations, understand social complexities and infer types of behaviour associated with specific music enthusiasts/social sub-groups. This may be useful in the diagnosis and treatment of social disorders of anxiety and depression as well as others.

Conclusion

It is perceived that a multitude of factors appear to combine and interact in determining musical preference both in situational and overall/archetypal contexts, these may include, but are not limited to; Personality, which may determine more archetypal music preferences (i.e. style of music – such as reflective & complex - and genre - such as jazz, classical, RnB - most listened to) as research suggests both develop simultaneously during formative years and are maintain throughout life-span. Mood, which is perceived influence the choice of music in the moment (i.e. relatable/engaging) determined by tempo, pitch and general aesthetic (feeling) [e.g. specific artists/songs]. Musical training/ability, which may regulate the level of complexity of the music being played in order to achieve an optimum level of stimulation/satisfaction, as well as how an individual uses music. This may have an affect on what type of music is played depending on situational factors (i.e. it exerts situational control), as some individuals use music to alter current mood [e.g. listen to happy music when sad to feel happy] while other use it to maintain their emotional state [e.g. listen to happy music when happy to continue feeling happy]. A direct quote from a participants of the study when asked *what do you feel most influences your music preference?* bests surmises the ultimate complexity of musical preferences as well as the interaction between the multitude of varying factors which contribute to their development; “Several aspects: What my parents exposed me to as a kid. Music can evoke emotions/memories from different stages of my life. The semiotics of lyrics, as well as the cultural reference to their subculture and self-identification (for example, in my teen-angst years, I listened to a lot of Punk). My musical preference is also an extension of other creative mediums. I believe fashion is a huge influence on music preference (i.e. - electronic music festivals revived the 60's "hippie/electronic" style in the US, and vice versa) they have

symbolic relationships to the culture and mentality of a generation, which I suppose connect me to certain types of music.”

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Appendices

Appendix 1: Copy of full questionnaire



The relationship between personality, perceived creativity and musical preference.

My name is Mark Toal-Lennon, I am an undergraduate student conducting research in the Department of Psychology that explores the relationship between personality, creativity and musical preference. This research is being conducted as part of my studies and will be submitted for examination.

You are invited to take part in this study, participation in which will require completion of the attached questionnaires. This shouldn't take more than 10 minutes. While the questionnaires ask some questions that may cause some minor negative feelings, they have been used widely in research. If any of the questions do raise difficult feelings for you, contact information for support services are included on the final page.

Participation is completely voluntary and so you are not obliged to take part.

Participation is anonymous and confidential. Therefore responses cannot be attributed to any one participant. For this reason, it will not be possible to withdraw from participation after the questionnaires have been collected.

The questionnaires will be securely stored and data from the questionnaires will be transferred from the paper record to electronic format and stored on a password protected computer.

It is important you understand that by completing and submitting the questionnaire you are consenting to participate in the study.

Should you require any further information about the research or are interested in requesting a summary of results, please contact myself, Mark Toal-Lennon, at

Thank you for taking the time to complete this survey.

Short Test Of Musical Preference-Revised

Please indicate your basic preference for each of the following genres using the scale provided:

| | | | | | | |
|------------------|--------------------|------------------|--------------------------|---------------|-----------------|---------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Dislike Strongly | Dislike Moderately | Dislike a Little | Neither Like nor Dislike | Like a Little | Like Moderately | Like Strongly |

| | | |
|-----|-------|---|
| Sex | M | F |
| Age | _____ | |

- _____ Alternative
- _____ Bluegrass
- _____ Blues
- _____ Classical
- _____ Country
- _____ Dance/Electronica
- _____ Folk
- _____ Funk
- _____ Gospel
- _____ Heavy Metal
- _____ International/Foreign
- _____ Jazz
- _____ New Age
- _____ Oldies
- _____ Opera
- _____ Pop
- _____ Punk
- _____ Rap/Hip-Hop
- _____ Reggae
- _____ Religious
- _____ Rock
- _____ Soul/R&B
- _____ Soundtracks/Theme Song

Creativity Styles Questionnaire-Revised

A number of statements are listed below which reflect different ways one goes about being creative in everyday life. Read each statement, decide how well the statement applies to you and respond by using the following 5-point scale:

- (1) Strongly Agree
- (2) Agree
- (3) Unsure
- (4) Disagree
- (5) Strongly Disagree

Please indicate your preference by circling in the relevant abbreviation.

| | | (1) | (2) | (3) | (4) | (5) |
|---|--|-----|-----|-----|-----|-----|
| 1 | I consider myself to be a creative person. | SA | A | UN | D | SD |
| 2 | I am engaged in creative type work on a regular basis. | SA | A | UN | D | SD |
| 3 | I tend to use my visual sense a lot in my creative work. | SA | A | UN | D | SD |
| 4 | I tend to use my sense of hearing a lot in my creative work. | SA | A | UN | D | SD |
| 5 | I tend to use my sense of touch a lot in my creative work. | SA | A | UN | D | SD |
| 6 | I tend to use my sense of taste a lot in my creative work. | SA | A | UN | D | SD |
| 7 | I tend to use my sense of smell a lot in my creative work. | SA | A | UN | D | SD |

Open Questions

Please answer each of the following questions to the best of your ability. There are no right or wrong answers, and no trick questions. You may leave blank if you see fit.

Q.1 Do you feel your personality influences the type of music you listen to? And if so, why?

Q.2 Do you feel the creativity of an individual influences the type of music he/she listens to? And if so, why?

Q.3 What do you feel most influences your musical preference?

| | | | |
|-----|-------------------------------|-----|----|
| Q.4 | Are you a music professional? | YES | NO |
|-----|-------------------------------|-----|----|

Q.5 If 'YES', what is your current position (e.g. musician, DJ, music executive) and what type of training have you received?

Appendix 2: Message requesting participation

Hello,

For those of you who don't know me, my name is Mark Toal-Lennon, I am a final year student of Psychology in Dublin Business School and currently researching the relationship between personality and musical preference as part of my thesis.

If you have a few moments to spare would you mind filling out this quick survey (link found below), it will only take a few minutes and, for those of you who work in the music industry, you may find the results interesting.

As a result of my choice of topic, I need as many 'music professionals' to take part as possible in order to determine whether musical training/experience in the industry effects music preference.

Therefore if you could forward on the link below to as many industry professionals as possible it would be greatly appreciated.

Thank you for your cooperation,

Mark

<http://www.surveymonkey.com/s/LTTBGM2>