The Effects of Different Genres of Background Music on Women's Trait Inferences About Men

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A B S T R A C T

It has been found that the presence of music can have bearing on an individual’s emotional state, behavior and perception (May & Hamilton, 1980; Bryne & Clore, 1970). The genre of music determines the type of behavior that ensues, with individuals normally acting in accordance with stereotypes about that particular genre, such as buying expensive wines when a sophisticated classical song is playing in a wine store (Areni & Kim, 1993). The current study sought to determine the effect of sophistication levels in music, between classical and popular genres, on women’s trait inferences about men. Participants judged the attractiveness, sociability, sophistication in literature and arts, approachability and socio-economic status of five male photographs in the presence of classical music, popular music, or silence. Results show that sophistication levels in background music did not affect women’s perceptions about men, but the women’s ratings of various traits were significantly related.

F A C U L T Y M E N T O R

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Jasmine and Bowen’s project examined the influences of background music on the inferring of character traits of male faces. While they were unable to find influences of different styles of background music, they were able to establish a methodology that will be useful for examining similar issues in the near future. Moreover, the idea, design, and execution of the project came completely from Jasmine and Bowen. My own lab explores speech and multisensory perception, topics very different from those of Jasmine and Bowen’s project. However, Jasmine and Bowen’s initiative and understanding of their topic led me to trust them to conduct their project in my laboratory. They performed all phases professionally, and demonstrated enthusiasm and enjoyment along the way. They also gained expertise with many different research areas, by reading all of the relevant background literature.

A U T H O R S

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Jasmine Singh and Bowen Shaner are both Psychology majors, in their third and fourth year respectively. Both authors work in Dr. Lawrence Rosenblum’s Audiovisual Speech Perception Laboratory as research assistants, an experience that deepened their interest in research. The authors presented this research at the UCR Symposium for Undergraduate Research, Scholarship, and Creative Activity. Jasmine plans to pursue a PhD in Social Psychology, while Bowen is choosing a PsyD in Clinical Psychology. The authors thank Professor Rosenblum for his guidance and support throughout this project.

Pictured above from left to right: Jasmine Singh, Bowen Shaner
**INTRODUCTION**

The relationship between atmosphere, affect and perception has been studied extensively, often with mixed results. Judgments about the characteristics of people have been found to be influenced by one’s mood (e.g., Forgas & Bower, 1987). Byrne & Clore (1970) suggest that a perceiver fails to discriminate between the affective connotation of characteristics of a person and the affective characteristics of contextual stimuli that are simply a part of the perceptual environment. As a result, it has been found that the presence of music can greatly impact one’s moods and consequently, perception (May & Hamilton, 1980; Gueguen, Jacob & Lamy, 2010). For example, May and Hamilton (1980) discovered that rock music increased attraction to the opposite sex more than the absence of music or the presence of avant-garde, atonal music. Similarly, short-term listening to music with violent lyrics has been correlated with increased hostility and aggression in males after the exposure (Anderson, Carnagey & Eubanks, 2003).

Trait inferences refer to the personality characteristics an individual deduces of another. Trait inferences have been thought to be an instantaneous process, of which the individual usually has no specific intention or awareness (Winter & Uleman, 1984). A characteristic as basic as physical appearance can lead to the attribution of traits to an individual (e.g., Andersen & Klatzky, 1987). For example, people tend to associate attractive individuals with possession of positive traits such as sociability and intelligence, while unattractive individuals are perceived as lacking these qualities (e.g., Dion, Berscheid & Walster, 1972). In comparison, stereotypes have been suggested to be an automatic process that enables individuals to more readily identify and recall patterns in behavior and concepts (Winter & Uleman, 1984).

Commonly perceived stereotypes usually determine the considered levels of sophistication in music (North & Hargreaves, 2007). Rentfrow & Gosling (2007) conducted a study in which stereotypes about fans of various musical genres were evaluated. Participants rated personality traits, substance use and moral beliefs of the genres’ fans. Then, these characteristics were examined in the fans of the various musical genres themselves. Rentfrow & Gosling found that general stereotypes existed for main musical genres and that the stereotypes were accurate. Classical fans are perceived as affluent, intelligent and unattractive; meanwhile pop music fans were deemed enthusiastic, attractive and heavier drinkers.

Highly sophisticated music is frequently referred to as “highbrow”, and consists of classical and opera music; middlebrow and lowbrow music are comprised of more widely listened to genres such as popular and country music (Peterson & Kern 1996). Stereotypical perceptions of these musical genres have been demonstrated in psychological research: Areni and Kim (1993) found that using classical background music, in comparison to popular music, in a wine store prompted consumers to purchase more expensive wines. Similarly, North and Hargreaves (2006) demonstrated that playing classical or popular music in a cafeteria causes students to purchase more items than with silence, with classical background music resulting in increased willingness to spend more on items. Participants’ responses after a comparable study indicate that the effect of musical atmosphere on choice was not conscious (North, Hargreaves & McKendrick, 1999).

The current study examined the effect of sophistication levels in music on women’s trait inferences about males. As sophistication levels vary between musical genres and these stereotypes about the genres have been shown to affect one’s judgments on various matters, perceptions regarding the males were expected to vary according to the presence of different types of background music.

**METHODS**

**Phase I: The Selection of Male Stimulus Photographs**

**Participants.** Thirty female undergraduate students, ages 18 to 25, were the raters for the rating task.

**Materials.** Six frontal headshot photographs of adult Caucasian males between the ages of 25 to 33 with neutral expressions were obtained from a free online face database.
Procedure. The six photographs were assembled into an online survey using “Survey Monkey” (Survey Monkey, 1999) in which participants rated the attractiveness of each. A 7-point scale was used to rate attractiveness: 1 = extremely unattractive, 2 = unattractive, 3 = slightly unattractive, 4 = neither attractive nor unattractive, 5 = slightly attractive, 6 = attractive, 7 = extremely attractive. Five out of the six photographs were rated as neutral (M = 3.8, SD = 1.8). One photo received a rating of “unattractive” (M = 2.3, SD = 1.4) and was excluded.

Phase II: The Effect of Background Music on Participants’ Judgments

Participants. Thirty female undergraduate students, ages 18 to 25, were obtained by the investigators emailing students in their psychology courses at UCR with an inducement of free snacks for their participation in this experiment. Each participant had normal or corrected to normal hearing and vision. Only females were used to control for gender differences in susceptibility to the effects of background music (Beardslee & Fogelson, 1958). Half of the participants were run by the male investigator, while the other half were run by the female investigator, to control for effects of experimenter’s gender on the results (Barnes & Rosenthal, 1985).

Materials. The five validated neutral photographs were used in this phase of the experiment. Also, pairs of photographs of scenes were used for a distractor task. The scene photos in each pair were similar, but contained twenty subtle differences which subjects were asked to identify during the distraction phase of the experiment. Finally, a paper rating chart was utilized by each participant to make judgments about the photographs.

Procedure. In the experiment, individual participants were seated in a sound booth, while music played in the background through a computer speaker both in the sound booth and throughout the laboratory. Participants were told that music was played for the laboratory’s enjoyment, to prevent suspicion about the nature of the experiment. The type of music playing was dependent upon the three conditions: a classical music playlist, a popular music playlist and a control group with silence. Current popular songs were determined from the Billboard Top 100 list, while classical music was chosen from a list of classical songs (Mitterschiffthaler, Fu, Dalton, Andrew & Williams, 2007). Instrumental versions of all music were used to prevent possible effects from the lyrics (Anderson, Carnagey & Eubanks, 2003; Gueguen, Jacob & Lamy, 2010). There were ten participants in each condition. The participants sat for 15 minutes with the background music playing, performing the “find the difference” task with the pairs of scene photos. This allowed for the exposure to the musical stimulus without drawing attention to it (May & Hamilton, 1980).

Subjects were then presented with the five photographs of the male stimuli on a computer screen inside the sound booth for one minute per photograph while music continued to play. During this one minute, the participants made judgments regarding each male featured. A 7-point ranking scale was used for perception of 5 traits: sexual attractiveness, approachability, sociability, sophistication in literature and arts, and socioeconomic status. Statements regarding these respective traits were as such: “This person is sexually attractive,” “I would walk up to this person,” “This person has a lot of friends,” and “This person is sophisticated in literature and arts.” Participants were asked to rate the perceived socioeconomic standing of the male photographs. The 7-point scale is: 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = agree, 7 = strongly agree. For socioeconomic status, the 1-3 was lower class, 4 was middle class and 5-7 was upper class.

RESULTS

A multivariate analysis of variance (MANOVA) was conducted to determine differences in influences between classical or popular background music and silence on trait inferences for each male photograph. Musical condition had no effect on the women’s judgments for the male stimuli, Wilks’ λ = .709, F (10, 40) = .752, p>.05. Furthermore, there was no effect of experimenter gender on the results, Wilks’ λ = .790, F (5, 20) = 1.066, p>.05.
Pearson correlation coefficients ($r$) were determined to observe degrees of correlation between various trait inferences of the male stimuli. There was a significant positive correlation between ratings of attractiveness and sociability ($r = .581, n = 30, p = .001$), attractiveness and sophistication in literature and arts ($r = .366, n = 30, p = .047$), and attractiveness and approachability ($r = .570, n = 30, p = .001$). Additionally, a significant correlation existed between ratings of sociability and sophistication ($r = .529, n = 30, p = .003$), and sociability and approachability ($r = .687, n = 30, p = .000$). Furthermore, a significant correlation was found between ratings of sophistication in literature and arts and perceived socio-economic status ($r = .424, n = 30, p = .020$).

**DISCUSSION**

Overall, the sophistication level of background music, whether highbrow or lowbrow had no effect on women’s trait inferences of men. Also, the general presence of music in comparison to a silent atmosphere did not affect the judgments made. Thus, these findings may provide evidence that the levels of sophistication in an atmosphere may not significantly impact women’s perceptions of men. The exposure to the musical stimuli may have been too conspicuous an aspect of the experiment; perhaps conducting the experiment at a desk in the laboratory, instead of a sound booth, would have made the background music appear more natural and realistic (May & Hamilton, 1980). Additionally, subjects’ individual musical preference could have played a role in determining trait inferences while either classical or popular music was playing (Caldwell & Hibbert, 2002). Moreover, the volume of the music could have had an impact on the results: research indicates that females react more positively to music when it is played at a lower volume (Kellaris & Rice, 1993). Therefore, the experiment could be enhanced by first testing the effects of music’s volume on ratings of various traits by females.

Correlations found between various trait ratings were predictable. The results suggest that approachability, sophistication, sociability can be contributing factors to an individual’s attractiveness; by the same token, a higher rating of attractiveness could have led to the attribution of the aforementioned traits to the male stimulus, as research has shown the positive perceptions others have about good-looking individuals (e.g., Dion et al., 1972). The significant correlation between ratings of sociability and approachability supports research that approachable people are more likely to be befriended (Blau, 1960). Additionally, the relationship between sociability and sophistication in literature and arts may indicate that sophisticated people make more friends. Finally, a significant correlation between sophistication in literature and arts and perceived socio-economic status was found. This supports the notion that women hold stereotypes that wealthier men tend to be better educated or more refined (Christopher & Schlenker, 2000).

**REFERENCES**


