

Interpretations and Effect of Music on Consumers' Emotion

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In this study, we examined the actual meaning of the song to see exactly how music affects an individual's emotion in relation to shopper's behavior in a shopping environment. Past research has proven that the tempo of a song plays an important role in a person's emotion (Webster & Weir, 2005).

A 2x2 factorial ANOVA was used to measure the change in mood based on tempo and meaning of a song of 102 undergraduate students. Results revealed a significant interaction between tempo and emotion of the song selection on an individual's emotion rating, $F(2,406)=4.84$, $p<0.01$; confirm that music does have an effect on individual's emotions.

INTRODUCTION

Considerable progress has been made by researchers in helping our understanding on how; feelings, moods, and emotions are related in affecting all aspects of consumption behavior (Bagozzi, Gopinath, and Nyer, 1999). Emotions are strong, relatively uncontrollable feelings that occur when environmental events or our mental processes trigger physiological changes, such as increased heart rate; thereby, affect our behavior. These changes are interpreted as specific emotions resulting from the situation, affect consumers' thoughts and behaviors. Marketers' design and position products to both arouse and reduce emotions. It has been suggested that emotions constitute the initial and precognitive level of response to one's physical and social environment (Ittelson, 1976; Zajonc, 1980).

According to Bagozzi, Gopinath, and Nyer (1999), "emotion, is a mental state of readiness that arises from cognitive appraisals of events or thoughts; has a phenomenological tone; is accompanied by physiological processes; is often expressed physically (e.g., in gestures, posture, facial features); and may result in specific actions to affirm or cope with the emotion, depending on its nature and meaning for the person having it". For a similar perspective, see Lazarus (1991) and Oatley (1992). Generally emotions are defined in relation to other terms like "feelings" and "affect" that are themselves defined in terms of each other.

Clearly, music is shared across society and it is equally clear that its meaning, both musical and symbolic, is socially constructed (Hargreaves and North, 1997, p.1). Music has a prominent role in the everyday life of many people and it has the ability to change the emotional and physical status of people, whether they are in bad moods, good moods, or sad moods.

LITERATURE REVIEW

Music is very vital to humans; it can be used for many different purposes (Abe, 2004). Purposes such as enjoyment, relaxation and emotional balance are some of the reasons why individuals turn to music (Abe, 2004). According to Abe (2004), music, like language is an important part of our uniquely human endowment, making it both ever-present and unavoidable. To some individuals' music can be considered an art, a hobby or even a form of entertainment. The type of music an individual listens to has been shown to give a good description of their identity (Schellenberg, Peretz, & Vieillard, 2008). That is, individuals might select styles of music that reinforce their self perception; for example, individuals may listen to deep music to reinforce a self perception of being complicated (Rentfrow & Gosling, 2003). Each individual's music preference brings to light their personality and it also allows people to know or get a basic idea of who they are (Schellenberg et al., 2008).

On a daily basis, people all over the world listen to different types of music. Some individuals cling to a certain genre while others listen to certain types of music to share the same emotion as the artist. For this reason a question arises: Does the type of music that people listen to affect their emotion? According to Schellenberg et al. (2008), music can be considered a language of emotion. Peretz and Zatorre (2005), also said that there is a relationship between music and emotion, in that they believed that music allowed individuals to re-live emotional experiences that first occurred when they heard a song. For this reason most individuals tie an emotion to a song they heard (Peretz & Zatorre, 2005). This usually takes place when a special situation occurs as the individual hears a song or even when they are able to relate their current situation to the song that they hear (Peretz & Zatorre, 2005).

It is to be expected that the music individuals hear on a daily basis add to both the way they feel and the way they are perceived by others and also to the individuals' self identity (Janata, Tomic, & Rakowski, 2007). According to Janata et al. (2007), when an individual listens to music, an autobiographical memory develops and certain emotions become associated with the music. It is however, possible for the meaning that the individual associated with the song to be different from what the actual song means. So if the meaning is provided for a person, would their emotion differ? This question arises because there is a possibility that when individuals listen to music, the message behind the song can be different from what the artist actually means. This often happens when the lyrics of the song has different possible interpretations (Ballard, Dodson, & Bazzini, 1999). This can be seen with subliminal messages; subliminal information theory is known as the process whereby information is not only processed without full awareness but it is sometimes acted upon without full awareness (Taylor, 2007). So in this case an individual might feel that the song that they are listening to has a certain meaning when in actuality it does not. They therefore, would be acting on an emotion or even something else without even being aware (Taylor, 2007). This study however, is not over subliminal messages; yet, subliminal messaging shows how it is possible for individuals to interpret a song wrongly.

There have been many studies done in the past that try to bring forth the reason for certain types of emotion and memories that an individual experiences while listening to certain music (Ballard et al., 1999). It has been found that when an individual goes through certain episodes such as family issues, crisis or even break ups and listens to certain types of music, a relationship is formed between the two (Janata et al., 2007). Some might say that this relationship is formed because the song expresses exactly what they are going through (Peretz & Zatorre, 2005). However what if the meaning that the individual ties to the song is wrong? There are times when people listen to songs and they are not really paying attention to the lyrics or the interpretation that is given to a song is wrong. According to Ballard, Dodson, and Bazzini (1999), most individuals do not understand or correctly interpret the meaning that the song writer is trying to pass across.

According to Janata et al. (2007), this might be hard to test because each song elicits a different memory in each individual. However, according to Hopyan, Dennis, Weksberg, and Cytrynbaum (2001), some individuals are less likely to give a correct interpretation to emotion in music. This was discovered by having participants focus on the way music was interpreted and perceived (Hopyan et al., 2001). Experimenters accomplished this by taking away the actual performance factor of each song. A pre-test

was given in which individuals were tested on their comprehension of music in both musical and visual forms. Individuals who accomplished this task were given the post test (Hopyan et al., 2001). Another important factor to consider when listening to music is all the components such as tempo, rhythm, pitch, musical intensity and texture that help make the song. Throughout this discussion, we have examined the ways that songs in general influence an individual's emotion. However, what about all the components of the song; do they have a direct influence on an individual? According to Webster and Weir (2005), tempo, rhythm, pitch, musical intensity, texture all play a role in evoking emotions. Since lyrics of a song are not the only factors that have an effect on an individual's emotion, (tempo, rhythm, pitch, intensity and texture also influence the perception of a song) this might be another reason why an individual's perception of a song can be affected. In this study however, we will only test tempo and emotion along with the participant's comprehension of the meaning of the song.

With that in mind, if an individual was having a good day and then played a sad song, would that change the way they felt, and if so, for how long would their mood change? According to Sammler, Grigutsch, Fritz, and Koelsch (2007), the type of music that individuals listen to significantly affect their heart rate which in turn, affects their emotion. This was done by inducing pleasant and unpleasant emotions were by consonant and dissonant music. The experiment was conducted by allowing each individual to listen to a certain type of song whether sad or happy while also inducing a forced emotion by showing the participants different types of pictures. According to Mongrain and Trambakoulos (2007), music assists individuals with different types of emotions. In their research, after an individual listens to what is considered "happy" music their levels of dysphoria decreased.

For the most part, the basic two emotions portrayed in music are happiness and sadness (Mongrain & Trambakoulos, 2007). Music is usually considered happy when it has a fast tempo and when it is composed in a major mode (rhythm). Sad music however, is usually slow and in a minor mode (rhythm) meaning the type of scale that is used is at a slower pace. It is possible for this labeling to be switched around; however, this is how they are usually perceived especially when the actual words or meaning of the song is taken away (Schellenberg et al. 2008). In regards to slow inspirational music, there might be an exception because the song is encouraging the individual (Hunter, Schellenberg & Schimmack, 2008). According to Schellenberg et al. (2008), listeners usually use cues from music to be able to identify if a certain musical piece is happy or sad. This is important to this study because if a song is slow in tempo it might already be labeled as "sad" by the listener; this might affect the way they feel about the song which in turn might also affect their interpretation of the song.

In the study of Schellenberg et al., (2008), listeners prefer happier sounding music compared to sad sounding music the majority of the time; however this also depends on the individuals current mood at the time. In their research, they found that when listeners are played the same song in different versions (tempo, mode); they usually prefer the faster version. One thing that was left out of this research was the actual meaning of the song. Does the actual meaning of the song have an effect on the individual or is it just the way the song sounds? What if a story line was incorporated with the songs that the individuals listen to? If the story line had a positive interpretation would the song still affect the individual in a negative or positive way? Another question that might arise is: Does the type of music that an individual listens to on a daily basis define who exactly the individual is? Does music affect one's lifestyle, image and emotion?

The purpose of this experiment is to find out if music has a direct effect on an individual's emotion and if such emotion can be translated into buying behavior of consumers. As previous research has shown, the type of music that individuals listen to have an effect on them. However, if a story line was attached to a certain song would the music still have the same effect? This is important because some songs have both sad and happy cues. In this case what would individuals feel? Would their emotion become happy or sad? According to Hunter et al. (2008), music can be used to change non-intentional feelings. Past researches that include the effect of music on individual's emotions have been done; however this area has not yet been studied.

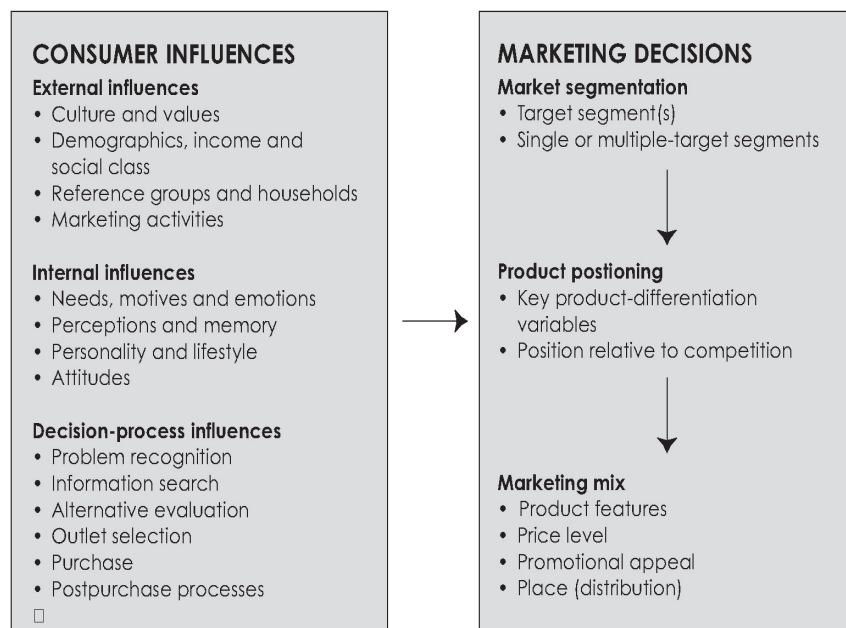
The independent variable in this experiment was the different types of music. There were four levels of this variable including the dependent variable which was the participant's emotion before and after the music had been played. After the individuals listened to the music and read the story line that gives the correct interpretation of the song, they were given a questionnaire with series of questions to describe how they felt afterwards. The questionnaire recorded their emotion before they listened to the song, after they listened to the song and after they read the story line. This experiment will benefit the field of psychology in the sense that it will show whether interpretation has an effect on the emotion of the individual.

CONSUMER BEHAVIOR

A positive relationship between music and shopping behavior has been established (Miniard, Bhatla, & Sirdeshmukh, 1992; Kellaris & Kent, 1992; Yalch, & Spangenberg, 2000). As a result, several marketing practitioners have bought to the notion that music is increasingly used as a stimulus in the marketing environment (for example in departmental stores), as well as in radio and television advertisements. According to Bruner (1990), music with high pitch is more exciting or happy than low-pitched music, which is perceived as sad; while people non-randomly assign emotional meaning to music and experience nonrandom affective reactions to music. However, music used in marketing-related contexts is capable of evoking nonrandom affective and behavioral responses in consumers.

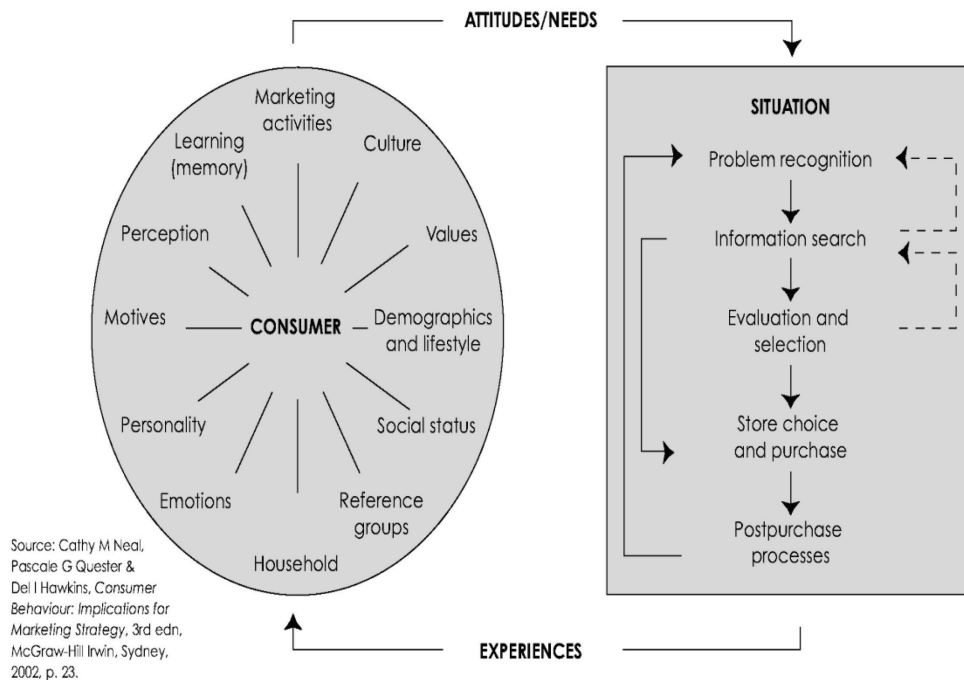
Consumer behavior is the study of individuals, groups, or organizations and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society (Hawkins and Mothersbaugh, 2010).

FIGURE 1.1 Influences on consumer behaviour and marketing decisions



Source: Cathy M Neal, Pascale G Quester & Del I Hawkins, *Consumer Behaviour: Implications for Marketing Strategy*, 3rd edn, McGraw-Hill Irwin, Sydney, 2002, p. 11.

FIGURE 1.2 Model of consumer behaviour



RESEARCH METHOD

Participants

The participants consisted of 102 undergraduate students. These students registered on Sona-System at the Stephen F. Austin State University, Nacogdoches, TX. and participating received credit for this study. The age range of the participants was 18 – 42 years ($M = 19.04$, $SD = 2.77$). Of the participants in this study, 91.3% were female. Approximately 52 % were White, 36% Black, 7% Hispanic, and 3% other. This experiment posed no risk to the participants that are involved. The participants were assigned to each group by random selection.

Materials

The materials needed for this experiment included:

Computer: A computer was used to play the music.

Music: There were two types of music both at a slow and high tempo. That is: fast music that is sad: Follow Me- Uncle Kracker, slow music that is sad: Losing My Religion - REM, fast music that is happy: Shackles- MaryMary, and slow music that is happy: Bag Lady- Erykah Badu. Each song clip was played for a minute long. To rule out all the confounds, each song was played in a different order each time, the meaning/ interpretation of the song that was provided had the same background.

Interpretation: There was an interpretation provided for each song used for this experiment. The correct interpretation was obtained by researching the meaning of each song. The artist explained what the song meant and what inspired them to write the song.

Questionnaire: The questionnaire was in Likert-scale form. Its purpose was to rate the participants emotion using a scale of 1 (strongly disagree/ sad) – 10 (strongly agree/ happy). There were 10 questions in each questionnaire. The questionnaire consisted of a pre-test and a post-test. The purpose of the pre-test and the post-test was to rate the participants emotions before and after they have read the correct interpretation. It is possible that some of the participants will

understand the meaning of the song before the correct interpretation is given; for this reason, on the questionnaire there was a question which asks if they understood the song. If they did, they were asked to give a brief explanation of the song to make sure their interpretation of the song was correct.

Procedure

Individuals were randomly assigned to a music group. Once the participants entered the testing area they were given brief instructions about the experiment and a consent form to sign. After the consent form was signed, the individuals documented their current emotion by answering the pre-questionnaire. Following this, participants listened to a song. The participants then documented their emotion after the song had been played. Following this, they were given a written story line describing the meaning of the song that they listened to. Once the participants read the story line they were given an additional questionnaire asking those series of questions about how they feel. There was a possibility that the participants would know the meaning of the song that was played. To control this, the songs that were selected for this experiment were songs that were labeled as ambiguous by the writer of the song itself. Once all the questionnaires were turned in they were debriefed and free to go.

ANALYSIS AND RESULTS

A 2x2 factorial ANOVA was used to measure the change in mood based on tempo and meaning of a song. The results of this experiment revealed a significant interaction between tempo and emotion of the song selection on an individual's emotion rating, $F(2,406)=4.84, p<0.01$. See appendix A. Results showed significant emotional change for participants listening to fast-happy songs, $F(2, 104) = 4.93, p<0.01$. Participant's emotion significantly increased from pre-test ($M= 6.94, SD= 1.38$) to post-test ($M= 7.72, SD= 1.29$). No significant emotional changes were found in those listening to slow-happy songs $F(2, 102) = 0.08, p>0.5$.

Regarding sad songs there was a significant change $F(2, 98) = 6.602, p<0.01$, in participants who were in the fast-sad condition. Emotion ratings decreased after they listened to the song ($M=6.44, SD= 1.88$) compared to their emotions before listening to the song ($M= 7.32, SD= 1.52$). Surprisingly, emotions increased again after reading the songs interpretation ($M=7.54, SD= 1.50$). This was contrary to our hypothesis predicting that we would see a decrease in emotion after reading the correct interpretation. Finally, it was found that there was a significant difference $F(2, 96) = 6.637, p<0.01$, in emotion ratings for those who listened to slow-sad songs. As hypothesized, emotion ratings decreased after listening to the song ($M=6.27, SD= 1.830$) compared to their emotions at pre-test ($M= 7.35, SD= 1.48$). However, similar to the fast-sad condition, emotion increased after reading the correct interpretation ($M=6.73, SD= 1.74$).

A correlation analysis was conducted to examine the participant's emotion before, during, and after listening to the music. Significant difference was found between the participants emotion before listening to the music ($M = 7.17, SD = 1.47$) and after listening to the music ($M=7.25, SD = 1.75$).

Out of 102 total participants, 72.5% of those individuals had incorrect interpretations of the song, while 27.5% of the individuals had correct interpretations. The percentage of the individuals believed that it is important for individuals to have correct interpretations of the songs that they listen to was 88.5%. It was also seen that 89.4% of the participant noted that due to this experiment, that would take future interest in trying to find out the correct interpretations of the songs that they listen to.

Finally speed and emotion were also compared. Overall music that was fast had an average mean of 49.05% while music that was slow had an average mean of 47.1%. When comparing emotion, happy songs had an average mean of 51% while slow songs had an average mean of 47.1%. The fast-happy condition had a mean of 51%, slow-happy had a mean of 51%, fast-sad had a mean of 47.1% and the slow-sad had a mean of 47.1%. This data that is present does not show a significant difference between one another. However, it can be seen that participants in the fast and happy conditions rated higher in emotion than the participants in the sad and slow conditions.

Discussion

The purpose of the experiment was to find out if music has a direct effect on individual's emotions and how this emotion is translated to shopping behavior in the market place. From the analysis of the data that was gathered, it was shown that there is a significant difference between music and its effect on individual's emotion. As participant noted their current emotion during the experiment, their emotions changed throughout the process. Overall, in some conditions emotion decreased after listening to the music, however once the correct interpretation was passed out the emotions increased surpassing the initial emotion when they began the experiment. In only one condition there was no significant finding.

Another question that arose was whether the individual's interpretations for songs were correct and also whether interpretations that individuals tied to certain songs had an effect on their emotion. Most of the participants had incorrect interpretations for the music that they listened to, even though they felt that they always interpreted the meanings of songs correctly. Once the participant was handed the correct interpretation of each song they noted that their views about the song had changed. Some of the participants went as far as explaining how knowing what the correct interpretation meant affected them. Most individuals noted that because of this experiment, they would take a further effort to know the correct meaning of songs that they listened to in the future.

A major part of this experiment; however, had to do with which group each participant was placed in. As stated before the independent variables were the different types of music that were listened to; there were four levels namely: fast- sad, fast- happy, slow- sad and slow- happy. It was hypothesized that individuals who listened to fast music would be in an overall happy mood and be able to shop better due to the fact that the tempo was fast. It was also hypothesized that individuals who listened to slow music would report a decrease in their emotion because the tempo was slow.

From the results, there was an overall change in the participants pre-emotion and their middle emotion which was recorded after they listened to the song. There, however, was also a change in their emotion after they read the correct interpretation of the song. This occurred because as previously hypothesized, songs which have a fast tempo are usually considered as a happy song. The participants overall emotion increased after they heard the song and discovered the correct interpretation of the song.

Participants who were in the fast-happy condition, showed a remarkable change in their emotion from when they began the experiment until when the experiment ended. From the results that were produced, it is clear to see that individual's emotions increase when they listen to a fast-happy song. Participants in the slow-happy condition did not show a significant change however, their post emotion was not as high as their middle emotion which was also not as high as their pre emotion. This confirms the hypothesis that even though a song might have a happy meaning; if the song has a slow tempo then individuals are still most likely to consider the song a sad song which in turn will decrease their overall emotion.

Participants in the fast-sad condition, showed a change across the board. There was a significant difference in participant's pre emotion, middle emotion and their post emotion. Their pre emotion and their post emotion on the other hand had a little difference in the overall change, meaning the difference that lie between the participant's pre emotion and post emotion was not that large. See appendix B. None the less, participants in this condition had an increase in their emotion after listening to the song and reading the correct interpretation. It is unclear why emotion increased after reading the correct interpretation, however, this increase in emotion is another possible future area of study. Through this result the proposed hypothesis was confirmed; even though the song might have a sad meaning, if the tempo of the song is fast and upbeat the emotions of individuals will increase.

Participants in the slow-sad condition also had a significant change in their emotion. The participants in this condition started off with a high emotion however after listening to the song it was seen that there was a decrease in the participant's emotion. When the correct interpretation was given, the overall emotion for their post emotion increased slightly.

Conclusion

From the results of this experiment, the initial hypothesis was proven correct. Music does have an effect on individual's emotions depending on the type of music that is played. Another confirmation that

was received in this experiment is that every element of a song does play a major role in affecting an individual's emotion. As stated by Webster and Weir (2005), tempo, rhythm, pitch, musical intensity, texture all play a role in evoking emotions. Since lyrics of a song are not the only factors that have an effect on an individual's emotion, (tempo, rhythm, pitch, intensity and texture also influence the perception of a song) this might be another reason why an individual's perception of a song can be affected. Another important factor is that individuals usually do not associate the correct meaning to a song thus sometimes causing them have an emotion which can be changed after finding out the correct interpretation of a song.

Implications

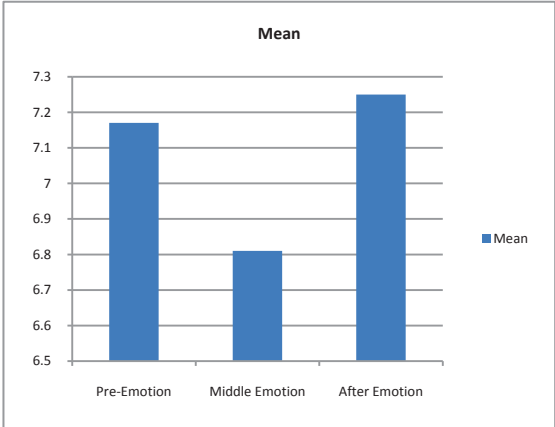
This study will help individuals who take interest in listening to music and understanding its correct interpretations. As stated in the introduction, sometime individuals understanding of a song is not very clear and the actual meaning is passed to them through subliminal messages. This study will bring that fact to light and encourage individuals to look past just the obvious and try to see if there is a more in depth meaning to the song that they are listening to. This will also be a benefit because after this experiment individuals might cherish a song more. This experiment will also benefit the field of psychology in the sense that it will show that interpretations has an effect on the emotion of the individual. Finally, background music in a shopping environment is deemed important and can affect shoppers' emotions positively and can lead to purchase.

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APPENDIX A



APPENDIX B

