

Anxiety, Sadness, and Emotion Specificity: The Role of Music in Consumer Emotion and Advertisement Evaluation

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Although music could diversely influence consumer judgment process and behavior, it is still unclear whether music can evoke discrete emotions on consumers and influence consumer evaluation toward certain advertisements. This research proposes that music could evoke sad and anxious emotion on consumers; subsequently, consumers would regulate their negative emotions in accordance to their emotion orientations: Consumers who feel sad would show high evaluation toward happy-themed advertisement, while consumers who feel anxious would show high evaluation toward calm-themed advertisement. This paper concludes with the discussion of theoretical and practical implications and conclusion of this study.

Keywords: emotion, affect regulation, music psychology, advertising

Meskipun musik dapat memberikan pengaruh yang berbeda terhadap proses penilaian dan perilaku konsumen, masih perlu adanya studi yang mempelajari apakah musik dapat membangkitkan emosi diskrit pada konsumen dan mempengaruhi evaluasi konsumen terhadap iklan tertentu. Penelitian ini mengusulkan bahwa musik dapat membangkitkan emosi sedih dan cemas pada konsumen; kemudian, konsumen akan mengatur emosi negatif mereka sesuai dengan orientasi emosi mereka: Konsumen yang merasa sedih akan menunjukkan evaluasi tinggi terhadap iklan yang memiliki tema menyenangkan, sedangkan konsumen yang merasa cemas akan menunjukkan evaluasi tinggi terhadap iklan yang memiliki tema tenang. Artikel hasil penelitian ini juga membahas implikasi dan kesimpulan dari penelitian ini secara teoritis dan praktis.

Kata Kunci: emosi, pengaturan afeksi, psikologi music, iklan

Introduction

Music can influence consumers in a strong and diverse manner; thus, for the past few decades, there has been a growing interest to learn how music could influence consumers' judgment processes and their subsequent behaviors. In particular, many studies have extensively investigated how background music could influence consumers in certain settings such as the supermarkets or restaurants (e.g. Alpert, Alpert, and Maltz 2005; Beverland et al. 2006; Demoulin 2011; Mattila and Wirtz 2001). For example, research of Alpert, Alpert, and Maltz (2005) examined the effects of different music (happy vs. sad music) on consumer purchase intention and demonstrated that consumers in happy (vs. sad) state show high purchase intention when the background music has happy (vs. sad) feeling.

However, current findings still offer inconsistent results whether certain music could induce distinct emotions on consumers and how these emotions could influence consumer behavior in a different setting. Integrating affect regulation principle and orientation-matching hypothesis (Labroo and Rucker 2010), this present research aims to fill this gap by examining how music could elicit discrete emotions on consumers and how these evoked emotions could subsequently influence consumer evaluation toward certain advertisements. This paper

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proposes that sad music would evoke sadness on consumers; consequently, consumers would show high evaluation toward advertisement which promotes happy-theme. In contrast, anxious music would evoke anxiety on consumers; consequently, consumers would show high evaluation toward advertisement which promotes calm-theme. These tendencies emerge because people regulate their emotions in accordance with their orientation: Approach vs. avoidance.

This present research has four potential contributions for the theoretical development and practical implications. First, this research would demonstrate that certain music can evoke discrete emotions on consumers. Second, this research would provide further evidence for orientation-matching hypothesis (Labroo and Rucker 2010). Third, this paper also adds understanding about the underlying mechanism of how music can influence consumer behavior. Finally, practical implications for marketers can be derived from this research. In the following sections, a literature review is presented. Afterwards, the methods and results of the study are explained. This paper closes with a discussion of theoretical development, practical implications, limitations of this current research, and a conclusion.

Literature Review

Affect's Effects on Consumers

Affect can be defined as a basic pleasure and displeasure experience; affect is usually used as an “umbrella” term for mood, emotion, and other feeling states (Baas 2005). Although there is still no consensus for the definition of mood (see Luomala and Laaksonen 2000 for review), mood is usually understood by contrasting it with emotion (Siemer 2001). Nevertheless, it seems that most researchers agree that *diffuseness* is the fundamental point that distinguishes the difference between mood and emotion (Baas 2005): While emotion tends to have a specific target (about something or someone), mood tends to be more diffuse and has less specific target. Moreover, although both mood and emotion can be explained by the same components such as positive and negative valences

(Baas 2005), emotion, unlike mood, has additional dimensions of appraisal-tendencies; consequently, emotions of the same valence (e.g. negative emotions) with distinct appraisal-tendencies (e.g. sadness has a state of inactivity, while anger has a state of eagerness to act; Rucker and Petty 2004) may activate different responses from consumers.

In the aggregate level, studies on affects can be divided into two streams. First, much classic research suggested that positive affect generally induces more favorable evaluation from consumers, while negative affect induces less favorable evaluation from consumers (see Pham 2007; Schwarz and Clore 2007 for review). This principle was drawn upon the concept that affect could trigger “informational impact” on consumer judgment process (Gendolla 2000). This impact may emerge because: (1) certain affect primes a recall of similar valence memories; these memories then influence consumer judgment process (Bower 1981; Gardner 1985; Isen et al. 1978); or (2) certain affect influences consumer judgment process by providing *information* regarding current state (Abele and Petzold 1994; Schwarz and Clore 1983). For instance, Sar, Duff, and Anghelcev (2011) showed that consumers in positive mood evaluated brand extensions more favorably than consumers in negative mood.

However, these classic perspectives may not commonly applicable (Bower and Mayer 1985) because there is a complexity in the underlying mechanism (Isen 2008). Thus, affect regulation principle has aimed to illuminate that complexity (Maier et al. 2012) using basic hedonistic principles: People tend to achieve pleasure and avoid pain (Freud 2003); in a sense, affect possesses a “directive impact” on consumer judgment process (Gendolla 2000). Based on affect regulation principle, consumers generally have the tendencies to maintain their positive affective states and relieve their negative affective states. For example, DiMuro and Murray (2012) demonstrated that consumers in positive mood would show high evaluation toward products which are congruent with their arousal level; conversely, consumers in negative mood would show high evaluation toward products which are incongruent with their arousal level.

Consumers' Emotion Regulation

Based on basic hedonistic principle, prior studies have established that the reasons consumers regulate their emotion are: (1) to maintain positive emotion (Andrade 2005; DiMuro and Murray 2012; Kim, Park, and Schwarz 2010; Meloy 2000); and (2) to alleviate negative emotion (Andrade 2005; DiMuro and Murray 2012; Labroo and Rucker 2010; Raghunathan, Pham, and Corfman 2006). For instance, Meloy (2000) showed that inducing pleasant mood on consumers could persuade them to interpret new product information as favorable. Kim, Park, and Schwarz (2010) also found that different advertisement preferences made by consumers (fun-themed or calm-themed) is consistent with their current mood states (exciting or calmness respectively); in contrast, DiMuro and Murray (2012) demonstrated that consumers in negative mood would select products with their opposite arousal level.

In particular, *valence* is argued to be one crucial indicator in the emotion regulation process (Schwarz and Clore 1983; Labroo and Rucker 2010; Tice, Bratslavsky, and Baumeister 2001). Because positive emotion specifies imminent positive outcome, it reduces the effort to regulate current emotional state; in contrast, because negative emotion specifies imminent negative outcome, it increases the effort to regulate current emotional state (Carver and Scheier 1998; Labroo and Rucker 2010; Schwarz and Clore 1983). In other words, negative emotion would motivate consumers to regulate their current emotional states. Research of Labroo and Rucker (2010) and DiMuro and Murray (2012) presented clear illustrations of these premises.

DiMuro and Murray (2012) examined how consumers regulate their mood based on their arousal level. They proposed that consumers in positive mood would *consistently* choose products in accordance to their arousal level; however, consumers in negative mood would *oppositely* choose products in accordance to their arousal level. Hence, in positive mood condition, consumers in high arousal would prefer high arousal products (i.e. Amp Energy Drink) to low arousal products (i.e. Nestea Ice Tea). In negative mood condition, consumers in high arousal would prefer low arousal products to

high arousal products.

Labroo and Rucker (2010) have further developed the orientation-matching hypothesis that proposes consumer emotion regulation process based on the *orientation*. Built upon previous studies, including those in neuroscience (e.g. Davidson 1992), there are two aspects of emotion orientation: approach and avoidance. Some emotions arise from situations that lead to approach orientation such as sadness or happiness, while other emotions arise from situations that lead to avoidance orientation such as anxiety or calmness (Carver 2001; Carver and Harmon-Jones 2009; Higgins 1997). Higgins (1997) further suggested that negative emotion stems from failure of an orientation, and positive emotion stems from success of an orientation.

As an illustration, an individual may feel sad because one fails to approach a reward; an individual may also feel anxious because one fails to avoid a threat. In contrast, an individual may feel happy because one succeeds in approaching a reward; an individual may also feel calm because one succeeds in avoiding a threat (Higgins 1997). Integrating orientation and valence dimensions, Labroo and Rucker (2010) proposed that positive approach emotion (e.g. happiness) best regulates negative approach emotion (e.g. sadness); conversely, positive avoidance emotion (e.g. calmness) best regulates negative avoidance emotion (e.g. anxiety).

Music and Consumers' Emotion

Research in different fields has established that music can significantly influence emotions. Kreutz et al. (2008) examined how classical music can stimulate people's emotions; however, the intensities of these emotions depend on personal preferences. The attributes of music also differently influence the emotions induced by music. For instance, major-key and fast-tempo music enhances happiness, while minor-key and slow-tempo music intensifies sadness and produces uncertainty feeling (Hunter, Schellenberg, and Schimmack 2010). Finally, Lundqvist, et al. (2009) suggested that the emotions induced by music are *unpretentious* affective states, and not merely the affective states resulted from the feeling expressed by the music.

Recently there has been a growing interest to understand the implications of music in the consumer behavior field, especially music as an environmental factor. These studies (Alpert, Alpert, and Maltz 2005; Beverland et al. 2006; Demoulin 2011) generally showed that the congruity between music and product elements (e.g. brand, environmental atmosphere) positively encourages consumer response (e.g. purchase intention, brand image). The manipulation of music attributes (e.g. tempo, key signature) could also induce different consumer behaviors. For instance, researchers suggested that music with slow tempo and familiar melody could induce consumers to stay longer in restaurants (Caldwell and Hibbert 2002; Garlin and Owen 2006). However, White and McFarland (2009) argued that emotion manipulation could influence consumers' evaluation only when consumers focus on their affective states and value their affective states' role in the decision making process. Other researchers also utilized this knowledge in their research methods (e.g. Mogilner, Aaker, and Kamvar 2012; Mogilner, Kamvar, and Aaker 2011; Tamir, Mitchell, and Gross 2008).

Although the application of music in the consumer behavior field has been extensively investigated, prior studies have not provided clear evidence that certain music could evoke discrete emotions on consumers and that these evoked emotions can subsequently influence consumer judgment process. This research aims to fill this gap and particularly concentrates on negative emotion because negative emotion is an important signal for consumers to regulate their current emotional states (Carver and Scheier 1998; Labroo and Rucker 2010). Integrating current findings in the music psychology and affect regulation streams, this paper proposes that certain music can evoke discrete negative emotions on consumers (i.e. sadness and anxiety), and these emotions would motivate consumers to regulate their negative emotional states in accordance to their orientations: approach (i.e. sadness toward happiness) vs. avoidance (i.e. anxiety toward calmness).

H₁: Sad music would evoke sad emotion on consumers; consequently, consumers show high evaluation toward advertisement which promotes happy-theme.

H₂: Anxious music would evoke anxious emotion on consumers; consequently, consumers show higher evaluation advertisement which promotes calm-theme.

Research Method

In this study, one hundred and three participants (54 men and 49 women) were randomly assigned into one of four conditions: 2 (Emotion: anxiety vs. sadness) x 2 (Advertisement theme: happy vs. calm). Participants of this experiment were Korean undergraduate students who were taking English language courses at Kyung Hee University. This study was conducted as a part of class exercises (i.e. to rate how well an English presentation is performed). Participants were randomly assigned to two different emotion groups: sad or anxious conditions. They were told that there will be two (ostensibly) separate studies. In the first study, they listened to a music clip to induce their emotions. In the sad condition, music titled "Tale of Ashitaka" was used, while in the anxious condition, music titled "Madness" was used. Both music (composed by Joe Hisaishi) were selected because pre-test confirmed that this music could effectively influence subjects' emotional states.

After watching the clip, they completed emotion manipulation check questionnaire (adapted from Arnold and Reynolds 2009); this questionnaire asked: "How do you feel after listening to this music?" Then, participants rated their feelings in a 9-points Likert scale (from 1 = *not at all* to 9 = *extremely*) on four affect items (*happy*, *calm*, *sad*, and *anxious*). The data collected are used to check the effectiveness of music to evoke the desired emotions. After the first study, participants were asked to evaluate one of two provided advertisements. These advertisements endorsed similar resorts, yet with different promotion themes. One resort promoted a fun and happy experience for the visitors (e.g. rafting), while the other promoted a calm and relaxing experience for the visitors (e.g. spa). Pre-test was conducted to check that there is no significant preference toward certain advertisements. Afterwards, participants were asked: "How much do you like the resort advertised?" in a 9-points Likert scale (from 1 = *not*

Table 1. Emotion Manipulation Results

Affect Items	Sad Condition (n=52)	Anxious Condition (n=51)
Happy	1.385 (.530)	2.176 (.842)
Calm	2.288 (.871)	1.412 (.572)
Sad	5.788 (1.273)	2.196 (.917)
Anxious	1.923 (.860)	6.373 (1.483)

Note: Score signifies the Mean (*M*) and the Standard Deviation (*SD*) in the bracket.

Table 2. Advertisement Evaluation Results

	Sad Condition		Anxious Condition	
Score	Happy Ad (n=26)	Calm Ad (n=26)	Happy Ad (n=26)	Calm Ad (n=25)
Emotion	6.115 (1.275)	5.462 (1.208)	6.231 (1.557)	6.520 (1.418)
Ad Evaluation	5.962 (.958)	4.154 (1.377)	3.115 (1.143)	6.720 (1.275)

Note: Score signifies the Mean (*M*) and the Standard Deviation (*SD*) in the bracket.

Table 3. ANOVA Result

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	208.873	3	69.624	48.527	.000
Intercept	2561.600	1	2561.600	1785.401	.000
Group	.505	1	.505	.352	.555
Ad	20.780	1	20.780	14.484	.000
Group * Ad	188.520	1	188.520	131.396	.000
Error	142.040	99	1.435		
Total	2896.000	103			
Corrected Total	350.913	102			

at all to 9 = *extremely*). Finally, they were debriefed and thanked.

Results

Table 1 presents data collected from the participants' emotion manipulation questionnaires. As can be seen, in sad condition, participants experienced sadness more than other emotional states; conversely, in anxious condition, participants experienced anxiety more than other emotional states. Therefore, this mood manipulation check confirms that music successfully elicited sad and anxious emotions on participants. Table 2 shows the rated scores of sad vs. anxious emotion score from each group and advertisement evaluation. As predicted, participants in sad group demonstrated higher evaluation toward advertisement with happy-theme, relative to advertisement with calm-theme (M_{happy} vs. $M_{\text{calm}} = 5.962$ vs. 4.154 , SD_{happy} vs. $SD_{\text{calm}} = .958$ vs. 1.377); on the contrary, participants in anxious group showed higher evaluation toward advertisement with calm-theme, relative to advertisement with happy-theme (M_{happy} vs. $M_{\text{calm}} = 3.115$ vs. 6.720 , SD_{happy} vs. $SD_{\text{calm}} = 1.143$ vs. 1.275).

The result of a 2 (Emotion) x 2 (Advertisement theme) analysis of variance (ANOVA)

revealed a two-way interaction between emotion groups and advertisement theme [$F(1,99) = 131.396$, $p < .001$]; thus, this result confirms that the rated scores of different advertisement themes were depending on the different emotional states: Participants who experienced anxiety (vs. sadness) gave high score for the advertisement which promoted calm-theme (vs. happy-theme). Result of the ANOVA test also revealed that different emotion conditions did not significantly influence advertisement evaluation scores [$F(1, 99) = .352$, $p > .05$]; however, there was a significant effect of different advertisement themes on advertisement evaluation scores [$F(1,99) = 14.484$, $p < .001$].

Discussion

Figure 1 describes the interaction between emotion groups (sadness vs. anxiety) and advertisement themes (happy vs. calm). As can be seen, the result confirms the predicted hypotheses: (1) table 1 clearly provides evidence that music could evoke discrete emotions on participants (i.e. anxiety and sadness); and (2) table 2 and ANOVA test confirm that sad participants demonstrated high evaluation toward advertisement with happy-theme, while anxious participants demonstrated high evaluation

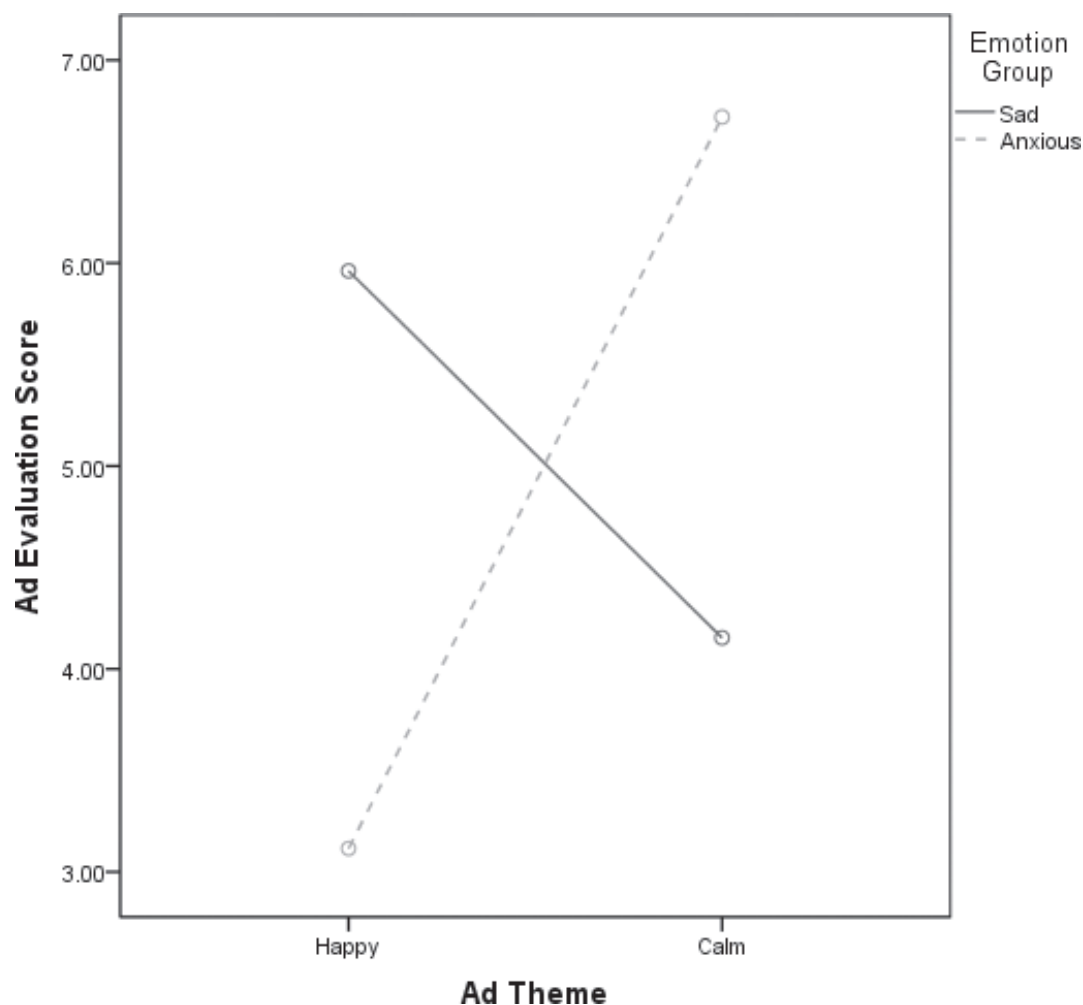


Figure 1. Interaction Plot of Emotion Group and Advertisement Evaluation

toward advertisement with calm-theme. Therefore, this research provides further evidence on consumer emotion regulation process, specifically orientation-matching hypothesis (Labroo and Rucker 2010): Consumers in *negative approach* emotion (i.e. sadness) demonstrate higher evaluation toward advertisement which promotes *positive approach* emotion (i.e. happiness), and consumers in *negative avoidance* emotion (i.e. anxiety) show higher evaluation toward advertisement which promotes *positive avoidance* emotion (i.e. calmness).

This research also adds an understanding regarding the underlying mechanism of how music can influence consumer behavior. Although prior studies have established that music can influence consumer judgment process and behavior in different ways (e.g. Alpert, Alpert, and Maltz 2005; Beverland et al. 2006; Demoulin 2011; Mattila and Wirtz 2001), the whole process of how this music effect works is still an open question. This papers shows that music can initially elicit certain emotions on consum-

ers, and these induced emotions subsequently influence consumer judgment process, specifically emotion regulation process. Finally, this paper also offers managerial implications for marketers, particularly concerning music application in the advertising.

Consumers may listen to sad or anxious music because they like it (i.e. personal preferences; Vuoskoski et al. 2012), it creates a sense of empathy (Lee, Andrade, and Palmer 2013), it induces nostalgic feeling (Vuoskoski et al. 2012), or they listen to this music in certain settings. Although ample research has examined the effects of background music in settings such as restaurants and supermarkets, this paper focuses on less-targeted setting such as TV commercials. TV provides many programs with different genres, including thriller, horror, and tragedy. By understanding how consumers may behave when they feel certain emotions after listening to certain music, marketers can strategically position the timing of their advertisements. As an illustration, marketers can put

a product advertisement which promotes calmness during TV programs that evoke anxious emotion (e.g. thriller, horror). Moreover, from this knowledge, marketers can also effectively combine different music and scenes to obtain high evaluation from consumers. For instance, marketers can use certain scenes with sad music in their commercials before they finally introduce their happy-themed products.

Limitations and Future Research

This current research has two limitations that can be addressed for the future research: (1) the particular effect of anxiety; and (2) the role of positive emotion in emotion regulation process. First, it is noted that participants somehow had different tendencies to score the advertisements: Happy-themed advertisement received lower evaluation than calm-themed advertisement (the result of ANOVA test; $M_{happy} = 4.538$, $M_{calm} = 5.437$). There are two possible reasons of this phenomenon: (1) emotion-effect: Anxious emotion somehow induces greater influence than sad emotion; or (2) calm-themed advertisement was more preferable than happy-themed advertisement. Since pre-test have suggested that there was no particular preference toward calm-themed ad ($M_{happy} = 4.278$, $M_{calm} = 4.611$), the potential explanation for this phenomenon is the emotion-effect of anxiety.

In the valence dimension, both anxiety and sadness indicate unpleasant state (i.e. negative emotion); however, anxiety, compared to sadness, has a different appraisal tendency: *Certainty*. While sadness usually indicates *certain* negative situation (e.g. loss of something or someone; Lazarus 1991; Raghunathan and Pham 1999; Roseman 1991), anxiety indicates *uncertain* negative situation and lack of control (Frijda, Kuipers, and ter Schure 1989; Roseman 1984). Prior research has suggested that anxiety is a complex emotional state, and it can further lead to unusual reactions (Barlow 2000; Gray and McNaughton 2003; Gu, Huang, and Luo 2010). Based on these premises, it could be suggested that anxiety, relative to sadness, has somehow greater influence on consumer judgment process; hence, the particular effects of anxiety on consumer decision-making process

can be examined in future research.

Finally, this research only focused on negative emotions (i.e. sadness and anxiety). Because the principle of affect regulation is basic hedonistic principle (Freud 2003), consumers tend to regulate their emotions only when they experience negative emotions. In fact, negative mood is a clear signal for consumers to regulate their affective states (Carver and Scheier 1998; Labroo and Rucker 2010), while positive mood still has unclear role in the self-regulation process (Fedorikhin and Patrick 2010). Thus, future research can investigate the role of positive emotions in consumer emotion regulation process and how these emotions could further influence consumer behavior.

Conclusion

This present research aims to examine whether music can elicit discrete emotions on consumers and how music can influence consumer judgment process, specifically emotion regulation process. The results of this paper provide validations that music can evoke certain negative emotions on consumers (i.e. sadness and anxiety) and that evoked emotions can further influence consumer evaluation toward different advertisement themes based on emotion regulation principle: Consumers who feel sad tend to show higher evaluation toward happy-themed ad than toward calm-themed ad; in contrast, consumers who feel anxious tend to show higher evaluation toward calm-themed ad than toward happy-themed ad. Thus, this paper also offers further evidence for orientation-matching hypothesis (Labroo and Rucker 2010). Furthermore, this research adds an understanding of the underlying mechanism of music effects on consumer behavior. Finally, this paper presents several practical implications, especially in the TV advertising area. Marketers could effectively create their product advertisements and strategically put these ads during certain TV programs to maximize consumer evaluation.

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