Empowerment: The Overlooked Dimension of Emotional Response

Abstract

Emotional responses toward advertising have substantial effects on consumers' attitudinal evaluation and behavioral intentions. These responses were organized in three distinctive dimensions, Appeal, Engagement, and Empowerment. Previous research either failed to find the independent effect of Empowerment or only focused on the other two dimensions. This study manipulated the level of Empowerment (high vs. low) and controlled for Appeal and Engagement to examine the effects of Empowerment on behavioral intentions. Results showed that subjects perceived a significantly higher level Empowerment when exposed to anger appeals verses to fear appeals. Further, high Empowerment triggers stronger behavioral intentions to approach the issues than low Empowerment. Theoretical and practical implications are also discussed.

Introduction

During the past two decades emotional response research in advertising has surfaced as a major factor for understanding consumer behavior and attitudes (Burke and Edell 1989; Englis 1990; Holbrook and Batra 1987; Jang, Chun, Ko, and Morris 2014; Morris 1995; Morris, Woo, and Cho 2003; Kim and Lennon 2010). Several research initiatives have shown that emotional responses toward advertising have substantial effects on consumers' attitude toward ads and brands, as well as behavioral or purchase intentions (Allen, Machleit, and Kleine 1992; Burke and Edell 1989; Holbrook and Batra 1987; Jang et al. 2014; Morris et al. 2002; Stayman and Batra 1991). Some have insisted that that emotional responses should be the focus of more advertising and rational response-based research (Batra and Ray 1986). In this study, the measurements of emotional responses are examined with regard to the three-dimensional approach, with the focus on one dimension in particular.

Over 50 years ago, three researchers, looking to explain and measure 'meaning,' found that emotional response is the key determinant of meaning and that these responses were organized in three distinct dimensions (Osgood, Suci, and Tannenbaum 1957). These three bipolar dimensions encompass the full spectrum of human emotion, originally labeled *Evaluation, Activation, and Locus of Control,* Later, the dimensions were renamed *Pleasure*, *Arousal* and *Dominance* (PAD) (Russell and Mehrabian 1977). To better understand the dimensions and applicability in marketing communications and advertising, and other related fields, the dimensions were redefined again as *Appeal*, *Engagement* and *Empowerment* (AEE) (Jang et al. 2014). Appeal is the measure of positive or negative reaction. Engagement is used to determine the level of involvement

and stimulation. Empowerment is the feeling of control: in-control, not in-control after

exposure to the stimulus. Researchers have employed this theory of emotional response

in many studies (Christ 1985; Christ and Biggers 1984; Morris et al. 2003; Morris et al.

2009).

In previous studies that have focused on the emotional reaction to advertising,

many have found substantial differences among the stimuli on Appeal and Engagement,

but failed to find significant differences on Empowerment. This study was designed to

examine for specific differences on Empowerment on stimuli that might be used in

communications, such as advertising.

Literature Review

Measuring Emotion in Advertising

In consumer behavior emotional response to advertising has been measured

through either a list of discrete feelings, or as multidimensional space (Poels and Dewitte

2006). While early research discovered as many as 31 categories of emotional responses

measures of advertising (Aaker, Stayman, and Hagerty 1986), the wide range of specific

feelings can be more efficiently organized along three dimensions, (Mehrabian and

Russell 1974) now referred to Appeal, Engagement and Empowerment. Verbal scales of

multiple emotion adjectives were initially used and factor analyzed, to measure emotional

response in this line of research (Mehrabian and Russell 1974), but that process is

cumbersome and lacks cross-cultural application. In the last two decades, researchers

have used visual measures, the Self-Assessment Manikin (SAM) scale (Lang 1980) and

AdSAM® the Attitude Self-Assessment Manikin. (Jang et al. 2014). (See Figure 1). One

major advantage of AdSAM® is that the graphic nature helps eliminate the cognitive

processing for semantic judgment, an inherent problem in all verbal measures of emotion

(Morris, 1995). In addition, AdSAM® and SAM are highly correlated with the PAD

verbal scale (rappeal = 0.94; rengagement = 0.94; rempowerment = 0.66) (Lang 1980;

Morris 1995; Jang et al. 2014).

Place Figure 1 about here

It is important to point out that SAM, although a self-report technique, is an

integral component of physiological research on emotion, particularly in the investigation

of physiological responses. AdSAM® is based on the Self-Assessment Manikin [SAM]

(Lang 1980), and was developed to measure emotional response to advertising and

marketing communications stimuli. AdSAM® is a research tool that although similar to

SAM, includes a database of 232 emotional adjectives, that were scored with the same

technique and therefore can used to help focus the responses on specific feelings without

the exposure to those adjectives by the respondents.

Previous studies indicated that when people were exposed to the anger and fear

stimuli, Appeal and Engagement dimensions remain constant while Empowerment varies

(Goodman, Morris, and Sutherland 2008; Morris 1995). Specifically, anger stimuli elicit

higher level of Empowerment and fear stimuli elicit lower level of Empowerment

(Goodman, Morris, and Sutherland 2008; Morris 1995). To examine the effect of

Empowerment when controlling for Appeal and Engagement, this study used the anger

and fear appeals, and the following hypothesis was proposed:

H1: Anger appeal triggers higher level of Empowerment whereas fear appeal triggers lower level of Empowerment.

Empowerment and Behavior

The basic environmental psychology model of Mehrabian and Russell (M-R model) posits that people's perceptions of the environment affect the emotional state of a particular individual (Porat and Tractinsky 2012). Those emotional states can be captured by three dimensions (Mehrabian and Russell 1974), referred as Appeal, Engagement and Empowerment. Subsequently, the person's emotional state influences one's behavior within the environment, framed as "approach-avoidance" response. In approach motivation, behavior is instigated or directed by a desirable event or possibility, whereas in avoidance motivation, behavior is instigated or directed by an undesirable event or possibility (Elliot 1999). In an advertising context, approach response may include the desire to take the recommended actions in the advertisements and greater willingness to talk about the issues. Examples of avoidance responses are a desire to ignore the recommended behavior and to be inactive to engage with the issues in the ad.

When Russell and Mehrabian (1974) originally proposed the three-factor theory of emotions, they suggested that Empowerment should be a preferred state. Specifically, people would approach Empowerment eliciting situations. However, when Russell and Mehrabian (1978) conducted a study to examine the relationship of Empowerment to behavior by manipulating it, they found that people approached submissiveness eliciting situations, in contrary to predictions from the theoretical paradigm.

Instead of comparing the preference for Empowerment, a later study (Biggers and Rankis 1983) sought to determine if it was a predictor of approach-avoidance behavior.

Biggers and Rankis (1983) asked participants to read verbal descriptions of situations, imagine that they were actually in these situations, and filled out approach-avoidance scales for those situations. The results indicated that individuals in high Empowerment situations reported greater mean approach than those in low Empowerment situations (Biggers and Rankis 1983). To be more specific, people with high levels of Empowerment tended to exhibit greater approach behavior whereas people with low Empowerment exhibited greater avoidance behavior. The similar effects of Empowerment were found in a study of representative everyday situations. Mehrabian, Wihardja, and Ljunggren (1997) where subjects preferred situations that elicited positive Appeal and high Empowerment. Subjects least preferred situations that elicited negative Appeal and low Empowerment (i.e., being controlled) coupled with high Engagement. The study also demonstrated that unpleasant situations could also be mitigated if users have more control over the situation. In other words, when people felt they had more control over the situation (i.e., high Empowerment), they could perform the recommended behavior to minimize the negative Appeal. However, when people felt they had a lack of control, they believed that they couldn't do anything to change the situation, and therefore were less likely to perform the recommended behavior.

Over the years, researchers have lost some interest in the third dimension, Empowerment (or perceived control). The loss of interest stemmed from arguments that it represents a more cognitive reaction and less of an affective state (Barrett and Russell 1999) and from the difficulties of empirical studies to establish its independence from the other two dimensions (Brengman and Geuens 2004). For example, prior research focused on all three dimensions (i.e., Appeal, Engagement and Empowerment) and found out that

Empowerment didn't show significant main effect but interacted with other two dimensions to influence behavior (Yani-de-Soriano, Foxall, and Newman 2013). However, this study believes that the lack of independence from the other two affective states in the M-R model may have been merely an artifact of limited stimulus sets in many studies. Moreover, the stimuli used in previous studies didn't show a large variation in the third dimension, which is considered as more abstract and underlying. Thus, the independence of the Empowerment dimension should be demonstrated in a study featuring a more representative and comprehensive stimulus set (Mehrabian 1995).

In addition, various researchers did find that Empowerment influenced approach–avoidance response across different consumption environments (e.g., Biggers and Rankis 1983; Foxall and Greenley 1999; Gilboa and Rafaeli 2003). However, others failed to find such effects (e.g., Babin and Attaway 2000; Kamis, Koufaris, and Ster 2008; Porat and Tractinsky 2012). These conflicting results in the effects of Empowerment on approach/avoidance variables indicate that the independent effect of Empowerment needs further examination.

The current study brings insights from research on environmental psychology to the study of advertising stimuli. This study tries to manipulate the level of Empowerment (high vs. low) and control for the other two levels (Appeal and Engagement) to further discern the effects of Empowerment on behavioral intentions. The following hypothesis is proposed:

H2: Higher levels of Empowerment (i.e., anger) are associated with stronger behavior intentions when compared to lower levels of Empowerment (i.e., fear).

Method

Experimental design

The aim of this study is to investigate the possible ways to manipulate the level of Empowerment through stimuli and to examine the effects of Empowerment on behavioral intentions when controlling for the other two dimensions of emotional responses (i.e., Appeal and Engagement). Seventeen (17) stimuli (13 ads and four scenarios, eight anger and nine fear appeals) were developed to manipulate the level of Empowerment through the emotions of anger and fear, which are considered as having similar level on Appeal and Engagement while different in Empowerment (Goodman, Morris, and Sutherland 2008; Morris 1995). As this study contained large number of stimuli, the researchers randomly split the 17 stimuli into two sets with similar number of stimuli representing two emotions Empowerment differences. By randomly splitting the stimuli, this study tried to avoid the threat that participants might get fatigued because of the length of the experiment. As a result, one set contained eight stimuli (four fear and four anger) and the other set contained nine stimuli (five fear and four anger). Also, the counterbalancing of stimulus materials was done through randomization to eliminate the order effects. The resulting two sets are reflected by the groupings that appear in Table 1.

Participants

Ninety-three participants whose location is in the US were recruited from the Amazon Mechanical Turk (MTurk). MTurk is "a web-based resource that helps connect researchers to a large pool of interested potential research subjects who complete online studies from the privacy of their personal computers" (Lipinski-Harten 2013, p.18). Respondents took part in the study in exchange for a small payment of 75 cents. Previous

studies show that the workforce on MTurk is in many ways comparable to the population

representativeness found in samples drawn in traditional survey research, and that the

data quality tends to be higher (Buhrmster, Kwang, and Gosling 2011; Marge, Banerjee,

and Rudnicky 2010). As the demographic characteristics of two participant groups reveal

similar proportions of gender and ethnicity and similar mean age, two sets of participants

were combined for future analysis. The details of the participants' demographic (i.e., age,

gender and ethnicity) are presented in Table 2.

Stimuli development

The 17 stimuli used in the current study were selected by three independent

researchers, who were aware of the purpose of this study. Firstly, the three researchers

discussed the issues that might trigger people's anger or fear. After the discussion, the

following four issues were selected for further stimuli development: secondhand smoking,

water pollution, animal abuse, and war death. Then, three researchers searched for stimuli

on the four selected issues, which they believed represent high and low Empowerment

with similar level of Appeal and Engagement. In total, 24 stimuli were collected by three

researchers. And researchers reached an agreement on 17 out of 24 stimuli, and believed

these 17 stimuli had similar level of Appeal and Engagement (negative and high) but

different in level of Empowerment. Using these 17 stimuli in the experiment, this study

tries to identify if ordinary people's perception on Empowerment matches with the

scholarly understanding.

Procedure

The experiment was conducted online via Qualtrics.com, and the web link was

posted on Amazon Mechanical Turk. Once the participants clicked the link, they were

randomly assigned to one of the two sets of stimuli. All participants were asked to read a cover story introducing the purpose of this study. They were then randomly exposed to different stimuli in the respective sets. After exposure to each stimulus, participants were asked about their emotional responses using AdSAM®, and behavioral intentions toward the particular issue portrayed in the stimuli. Finally, they completed demographic questions. Participants were given control over the time they spent on reading the stimuli and finishing the follow-up questions.

Units of observation

Similar to Hollbrock and Batra's study (1987) on television commercials, the units of observation in the present approach are the stimuli themselves, rather than individual participants. That is, all analyses concerning the proposed hypotheses and research questions are performed across stimuli and not across people as the sampling units of interest.

This choice of stimuli as sampling units differs from the prevailing norm in studies on attitude toward the ad. However, in order to examine the manipulation of Empowerment using different stimuli, it makes sense to "regard the stimuli themselves as having different "personalities" or "emotional profiles" to which members of the target audience react with a fair degree of homogeneity" (Holbrook and Batra 1987, p. 406). Indeed, most copy testing proceeds on the basis of that implicit assumption.

Accordingly, analysis across stimuli (rather than people) has frequently appeared in studies of advertising recall (Holbrook and Lehmann 1980) and in the construction of viewer response profiles (Schlinger 1979; Wells 1964; Wells et al. 1971). The current study applies a similar logic to systematically look at the effects of Empowerment on

behavioral intentions.

Dependent measurement

To assess the effect of Empowerment on behavior, the behavioral intention was measured as a dependent variable.

Behavioral intentions

Five behavioral intention measures were revised and adopted from Rothman et al. (1999) to assess participants' intentions to perform the behavior relevant to the issue in the stimuli.

(1) How likely would you be to search more information about the issue in the ad?

(2) How likely would you be share more information about the issue to your family and friends?

(3) How likely would you be to encourage your family or friends to know about the issue?

(4) If you were asked to participate in helping stop the issue today, how likely would you do so?

(5) How tempted would you be to put off helping stop the issue?

Each item was assessed on a seven-point scale ranging from 1 (not at all) to 7 (very much). The items were combined into a single index with the fifth item reverse-scored (Cronbach's $\alpha = .864$).

Results

The data were first analyzed using an ANOVA followed by post hoc tests to examine if the stimuli are different at the Empowerment dimension, but same at the

Appeal and Engagement levels and to find out which pairs of stimuli successfully trigger high versus low Empowerment. The results of three F tests were significant on Appeal ($F_{(16, 776)} = 9.051$, $p < .0001$), Engagement ($F_{(16, 776)} = 4.638$, $p < .0001$), and Empowerment ($F_{(16, 776)} = 3.580$, $p < .0001$). In other words, the 17 stimuli are not the same at the three dimensions of emotional response.

The current study was interested in identifying people's perceived differences in Empowerment, when the Appeal and Engagement are similar, and when exposed to anger and fear stimuli. As the results showed, significant difference was found in the Empowerment dimension. Then, post hoc tests were conducted to identify which pairs of stimuli were significantly different at the Empowerment level. The post hoc Tukey tests showed that the stimulus 6 (fear, war death) and 10 (anger, secondhand smoking) were significantly different on Empowerment ($M_{Empowerment6} = 2.82$, $M_{Empowerment10} = 4.39$, $p = .02$) but difference was not found on Appeal ($M_{Appeal6} = 1.94$, $M_{Appeal10} = 2.18$, $p > .05$) and Engagement ($M_{Engagement6} = 6.31$, $M_{Engagement10} = 5.86$, $p > .05$) levels. The post hoc group comparisons also indicated that the stimulus 6 (fear, war death) and 11 (anger, secondhand smoking) were significantly different on the Empowerment ($M_{Empowerment6} = 2.82$, $M_{Empowerment11} = 4.57$, $p = .004$) dimension, but not significantly different on Appeal ($M_{Appeal6} = 1.94$, $M_{Appeal11} = 2.86$, $p > .05$) and Engagement ($M_{Engagement6} = 6.31$, $M_{Engagement11} = 4.80$, $p > .05$) levels. Further, stimulus 10 (anger, secondhand smoking) and 14 (fear, war death) were found to be different at the Empowerment level ($M_{Empowerment10} = 4.39$, $M_{Empowerment14} = 2.73$, $p = .013$) but similar at the Appeal ($M_{Appeal10} = 2.18$, $M_{Appeal14} = 1.32$, $p > .05$) and Engagement ($M_{Engagement10} = 5.86$,

$M_{Engagement14}$ = 6.66, p > .05) levels. The stimuli 6, 10, 11, and 14 were shown in the

Appendix I.

To test the hypothesis that Empowerment has influence on behavioral intentions,

independent sample t-tests were adopted for the analysis. When exposed to stimulus 10,

the anger appeal (M = 4.77, SD = 1.60), participants reported higher scores on behavioral

intentions (t (91) = -1.42, p = .037) than the time they exposed to stimulus 6, the fear

appeal (M = 4.14, SD = 1.29). However, the difference in behavioral intentions was not

found to be significant when participants were exposed to stimulus 6 (M = 4.14, SD =

1.29) and 11 (M = 4.34, SD = 1.42) (t (91) = -.719, p > .05) or stimulus 10 (M = 4.77, SD

= 1.60) and 11 (M = 4.77, SD = 1.71) (t (86) < .001, p > .05).

Discussion

This study contributes to the current emotional response literature by focusing on

the overlooked third dimension, Empowerment (formally referred to as dominance). It

uses 17 stimuli to manipulate the Empowerment dimension while controlling for the

other two dimension of emotional response (i.e., Appeal and Engagement), and to

examine the effects of empowerment on behavioral intentions.

First, the findings showed that anger and fear appeals are able trigger different

levels of Empowerment. Specifically, subjects in this study, perceived greater control

when they were exposed to an anger appeal, and less control when exposed to a fear

appeal. These findings are consistent with previous studies on the linkage between

Empowerment, and specific emotions (e.g., Bagozzi and Moore 1994). In this case the

AdSAM$^{®}$ Manikin was used to measure the dimensions of emotion.

Taking a closer look at the stimuli that were found to be significantly different in levels of Empowerment, this study reveals that the dead bodies portrayed in the fear appeal PSA elicits less perceived control, whereas healthy body getting harmed by smoking created an anger appeal, which elicits more perceived control. These finding are consistent with appraisal-tendency theory (Smith and Ellsworth 1985; Lazarus 1991; Lerner and Keltner 2000, 2001). Exposure to dead bodies in the war (fear appeal) was associated with appraisals of uncertainty and situational control (Smith and Ellsworth 1985; Lerner and Keltner 2000, 2001), informing people that the environment is unsafe, and about the cruelty of war. And therefore, people feel less control toward the situation in the stimuli. Exposure to a healthy body getting harm by secondhand smoking (anger appeal) evokes appraisals of certainty and individual control (Smith and Ellsworth 1985; Keltner, Ellsworth, and Edwards 1993; Lerner and Keltner 2000, 2001), promoting people's sense of responsibility to help the vulnerable people mentioned in the ad. As such, people feel more control toward their own behavior.

Second, the findings showed that Empowerment could be a predictor for behavioral intentions in some situations. Among three pairs that are different in empowerment, people show different behavioral intentions when they are exposed to one pair of stimuli (6 and 10). That is, anger (stimulus 10) triggers stronger behavioral intentions as people are motivated to approach the issue and actively look for solutions to solve the problem, whereas fear (stimulus 6) trigger less behavioral intentions since people tend to avoid the uncertain and unsafe situation.

This is the only pair that evokes significant difference in behavioral intentions. The reason may be the detrimental effects of war and secondhand smoking on children

respectively. This might be presumably because children are more vulnerable than adults, and could trigger stronger emotional responses. However, the researchers believe that the other two pairs of stimuli might elicit different behavioral intentions if the sample size were improved.

Above all, the study advances the understanding of the Empowerment dimension of emotional response, which few studies have examined the effects. This study provides empirical evidence that Empowerment could be manipulated through fear and anger appeals and that levels of empowerment have influence on behavior.

Findings of this study also have some practical implications. Firstly, fear and anger are most frequently used emotion in the PSAs (Bagozzi and Moore 1994). The results of this study indicates that people are more likely to perform the recommended behavior when they feel high in Empowerment (i.e., more control). Therefore, when designing PSA messages, professionals should try to increase the Empowerment to lead people to feel that they have more control over the situation. In that case, people might be more willing to behave the way they need to behave. Secondly, Empowerment could be an important factor in helping with mental disorder. Especially for people who usually feel less secure, increasing Empowerment could play a big role in making them feel more comfortable toward the messages.

In some situations, Empowerment needs to be changed accordingly to avoid the occurrence of less desirable outcomes. For example, people might fight with each other in a relationship when they are angry. In this case, the anger appeal used in the message should decrease the level of control, reducing the level of aggressive behavior by

lowering the level of control. This may seem contradictory, but someone can learn that they need not be in charge for a successful outcome.

Similarly, the public might overreact and feel panic about an airplane crash and are afraid of taking flights. To reduce the fear strategies should be used to increase the level of control. This may be done through advertising and public service announcements. In the future, researchers could examine the changes control, anger and fear appeal to determine if actual behavior can be modified through these techniques.

A few caveats should be kept in mind regarding this study. First, data collection was conducted online where researchers have little control over the process. It is possible that some participants did not pay much attention to the stimuli, so that the expecting effects of Empowerment were only found between three pairs of anger and fear stimuli. Another threat to the results was a less comprehensive list of social issues covered in the stimuli. Secondhand smoking, animal abuse, water pollution and war attacks were used to manipulate anger and fear appeals. Although these issues are important and representative, other issues, such as child abuse, drinking and driving, might be explored. Future researchers are encouraged to overcome the aforementioned limitations, and replicate the current study with different issues and larger sample of participants and maybe in a control laboratory setting. Lastly, future studies on emotional appeals and emotional responses are better to control the time of stimuli exposure and the time to enter the emotional response. In this study, participants were allowed to look at the stimuli and finish the questionnaire on their own pace, which the results might be biased by the unknown individual exposure time.

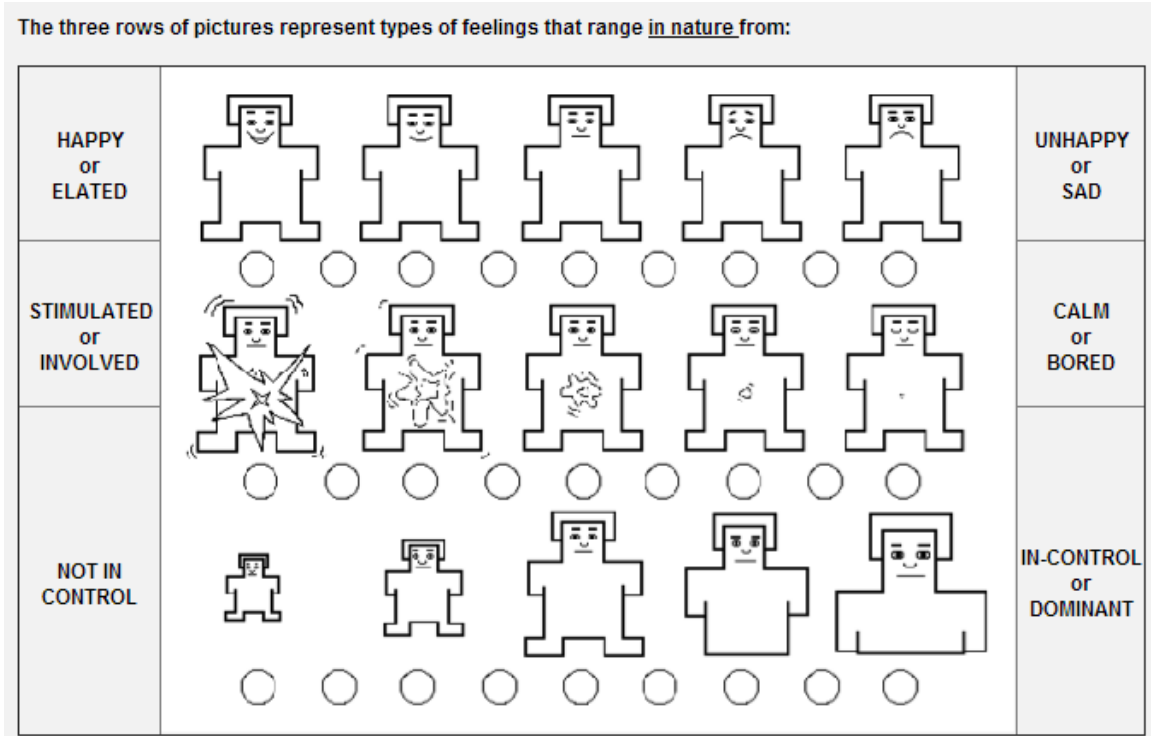**Figure 1. AdSAM® (Attitude Self-Assessment Manikin).**

Table 1. List of two sets of stimuli.

Set 1	Set 2
NO. 1 Secondhand smoking (Anger)	NO. 10 Secondhand smoking (Anger)
NO. 2 Secondhand smoking (Fear)	NO. 11 Secondhand smoking (Anger)
NO. 3 Animal abuse (Fear)	NO. 12 Animal abuse (Anger)
NO. 4 Water pollution (Anger)	NO. 13 Water pollution (Fear)
NO. 5 Water pollution (Fear)	NO. 14 War death (Fear)
NO. 6 War death (Fear)	NO. 15 War death (Fear)
NO. 7 War death (Anger)	NO. 16 Scenario (Fear)
NO. 8 Scenario (Fear)	NO. 17 Scenario (Anger)
NO. 9 Scenario (Anger)	

Table 2. Demographical characters of participants (N = 93)

	Group 1 (%)	Group 2 (%)	Total (%)
Gender			
Male	40.8	34.1	37.6
Female	59.2	65.9	62.4
Race			
White	71.4	81.8	76.3
African American	14.3	4.5	9.7
Asian	10.2	9.1	9.7
Native American	0.0	0.0	0.0
Others	4.1	4.5	4.3
Age	Mean = 33.39, Median = 31, SD = 13.68, Minimum = 19, Maximum = 71	Mean = 37.61, Median = 36.50, SD = 14.21, Minimum = 20, Maximum = 75	Mean = 35.39, Median = 34, SD = 14.02, Minimum = 19, Maximum = 75

Reference

Allen, Chirs T., Karen A. Machleit, and Susan S. Kleine (1992), "A Comparison of

Attitudes and Emotions as Predictors of Behavior at Diverse Levels of Behavioral

Experience," *Journal of Consumer Research*, 18 (4), 493-504.

Aaker, David A., Douglas M. Stayman, and Michael R. Hagerty (1986), "Warmth in

Advertising: Measurement, Impact, and Sequence Effects," *Journal of Consumer

Research*, 12 (4), 365-81.

Babin, Barry J., and Jill S. Attaway (2000), "Atmospheric Affect as a Tool for Creating

Value and Gaining Share of Customer," *Journal of Business Research*, 49 (2),

91–99.

Bagozzi, Richard P., and David J. Moore (1994), "Public Service Advertisements:

Emotions and Empathy Guide Prosocial Behavior," *Journal of Marketing*, 58 (1),

56-70.

Barrett, Lisa Feldman, and James A. Russell (1999), "The Structure of Current Affect

Controversies and Emerging Consensus," *Current Directions in Psychological

Science*, 8 (1), 10-14.

Batra, Rajeev, and Michael L. Ray, (1986), "Affective Responses Mediating Acceptance

of Advertising," *Journal of Consumer Research*, 13 (2), 234-50.

Biggers, Thompson, and Olaf E. Rankis (1983), "Dominance-Submissiveness as an

Effective Response to Situations and as a Predictor of Approach-Avoidance,"

Journal of Social Behavior and Personality, 11 (2), 61-69.

Brengman, Malaika, and Maggie Geuens (2004), "The Four Dimensional Impact of Color

on Shoppers' Emotions," *Advances in Consumer Research*, 31 (2), 122–28.

Buhrmester, Michael, Tracy Kwang, and Samuel D. Gosling (2011), "Amazon's

Mechanical Turk: A New Source of Inexpensive, Yet High-Quality, Data?"

Perspectives on Psychological Science, 6 (1), 3-5.

Burke Marian Chapman, and Julie A. Edell, (1989), "The Impact of Feelings on Ad-

Based Affect and Cognition," *Journal of Marketing Research*, 26 (1), 69-83.

Christ, William G. (1985), "Voter Preference and Emotion. Using Emotional Response to

Clarify Decided and Undecided Voters," *Journal of Applied Social Psychology*,

15, 237-54.

———, and Thompson Biggers (1984), "An Exploratory Investigation into the

Relationship between Television Program Preference and Emotion-Eliciting

Qualities—A New Theoretical Perspective," *Western Journal of Communication

(includes Communication Reports)*, 48 (3), 293-307.

Elliot, Andrew J. (1999), "Approach and Avoidance Motivation and Achievement

Goals," *Educational Psychologist*, 34 (3), 169-89.

Englis, Basil G. (1990), "Consumer Emotional Reactions to Television Advertising and

Their Effects on Message Recall," in *Emotion in Advertising: Theoretical and

Practical Explorations* (pp.231-53), Stuart J. Agres, Julie A. Edell, Tony M.

Dubitsky, eds., New York, NY, England: Quorum Books.

Foxall, Gordon R., and Gordon E. Greenley (1999), "Consumers' Emotional Responses

to Service Environments," *Journal of Business Research*, 46 (2), 149–58.

Gilboa, Shaked, and Anat Rafaeli (2003), "Store Environment, Emotions and Approach

Behavior: Applying Environmental Aesthetics to Retailing," *The International

Review of Retail, Distribution and Consumer Research*, 13 (2), 195–211.

Goodman, J. Robyn, Jon D. Morris, and John C. Sutherland (2008), "Is Beauty a Joy

    Forever? Young Women's Emotional Responses to Varying Types of Beautiful

    Advertising Models," *Journal and Mass Communication Quarterly*, 85 (1), 147-

    68.

Holbrook, Morris B., and Rajeev Batra (1987), "Assessing the Role of Emotions as

    Mediators of Consumer Responses to Advertising," *Journal of Consumer*

    Research, 14 (3), 404-20.

——— and Donald R. Lehmann (1980), "From Versus Content in Predicting Starch

    Scores," *Journal of Advertising Research*, 20 (4), 53-62.

Jang, W., J. W. Chun, Y. J. Ko, and Morris, J. D. (2014, March), The Limited Edition

    Products: The Role of Emotional Responses on Perceived Value and Purchase

    Intention. 2014 American Academy of Advertising's Conference, Atlanta, GA.

Kamis, Arnold, Marios Koufaris, and Tziporah Stern (2008), "Using an Attribute-Based

    Decision Support System for User-Customized Products Online: An Experimental

    Investigation," *MIS Quarterly*, 32, 159-77.

Keltner, Dacher, Phoebe C. Ellsworth, and Kari Edwards (1993), "Beyond Simple

    Pessimism: Effects of Sadness and Anger on Social Perception," *Journal of*

    Personality and Social Psychology, 64 (5), 740.

Kim, Hyejeong, and Sharron J. Lennon (2010), "E-atmosphere, emotional, cognitive, and

    behavioral responses," *Journal of Fashion Marketing and Management: An*

    International Journal, 14 (3), 412-28.

Lang, P. J. (1980), "Behavioral Treatment and Bio-Behavioral Assessment: Computer

    Applications," in *Technology in Mental Health Care Delivery System*, Joseph B.

Sidowski, James H. Johnson, and Thomas A. Williams, eds., Norwood, NJ:

Ablex.

Lazarus, Richard S. (1991), *Emotion and Adaption*. New York: Oxford University Press.

Lerner, Jennifer S., and Dacher Keltner (2000), "Beyond Valence: Toward a Model of

Emotion-Specific Influences on Judgment and Choice," *Cognition and Emotion*,

14 (4), 473-93.

———, ——— (2001), "Fear, Anger, and Risk," *Journal of Personality and Social

Psychology*, 81(1), 146.

Lipinski-Harten, Maciek (2014), "*A Slap on the Wrist or a Pat on the Back: The Impact

of Feedback on Pro-Eevironmentalism,*" Doctoral dissertation.

Lwin, May O., Andrea J. S. Stanaland, Desmond Chan (2010), "Using Protection

Motivation Theory to Predict Condom Usage and Assess HIV Health

Communication Efficacy in Singapore," *Health Communication*, 25 (1), 69-79.

Marge, Matthew R., Satanjeev Banerjee, and Alexander I. Rudnicky (2010), "Using the

Amazon Mechanical Turk for Transcription of Spoken Language," In *Acoustics

Speech and Signal Processing (ICASSP)*, 2010 IEEE International Conference,

5270-5273.

Mehrabian, Albert (1995), "Framework for a Comprehensive Description and

Measurement of Emotional States," *Genetic, Social, and General Psychology

Monographs*, 121, 339–61.

———, and James A. Russell (1974), *An Approach to Environmental Psychology*.

Cambridge Mass: MIT Press.

Mehrabian, Albert, Cynthia Wihardja, and Edward Ljunggren (1997), "Emotional

Correlates of Preferences for Situation-Activity Combinations in Everyday Life,"
Genetic, Social, and General Psychology Monographs, 123, 461–77.

Morris, Jon D. (1995), "Observations: SAM: The Self-Assessment Manikin; an Efficient
Cross-Cultural Measurement of Emotional Response," *Journal of Advertising Research*, 35 (6), 63-68.

———, Nelson J. Klahr, Feng Shen, Jorge Villegas, Paul Wright, Guojun He, and Yijun
Liu (2009), "Mapping a Multidimensional Emotion in Response to Television
Commercials," *Human Brain Mapping*, 30, 789-96.

———, C. M. Woo, and C. Cho (2003), "Internet Measures of Advertising Effects: A
Global Issue," *Journal of Current Issues and Research in Advertising*, 25 (1), 25-43.

Osgood, Charles E., George J. Suci, and Percy H. Tannenbaum (1957), *The Measurement of Meaning*. Chicago, IL: University of Illinois Press.

Poels, Karolien, and Siegfried Dewitte, (2006), "How to Capture the Heart? Reviewing
20 Years of Emotion Measurement in Advertising," KUL Working Paper No. MO
0605. Available at SSRN: http://ssrn.com/abstract=944401 or
http://dx.doi.org/10.2139/ssrn.944401

Porat, Talya, and Noam Tractinsky (2012), "It's a Pleasure Buying Here: The Effects of
Web-Store Design on Consumers' Emotions and Attitudes," *Human-Computer Interaction*, 27 (3), 235-76.

Rothman, Alexander J., Steven C. Martino, Brian T. Bedell, Jerusha B. Detweiler, and
Peter Salovey (1999), "The Systematic Influence of Gain and Loss-Framed

Messages on Interest in and Use of Different Types of Health Behavior,"

Personality and Social Psychology Bulletin, 25 (11), 1355-69.

Russell, James A., and Albert Mehrabian (1977), "Evidence for a Three-Factor Theory of

Emotions," *Journal of Research in Personality*, 11 (3), 273-94.

———, and ——— (1978), "Approach-Avoidance and Affiliations as Functions of the

Emotion-Eliciting Qualities of an Environment," *Environment and Behavior*, 10

(3), 355-87.

Schlinger, Mary Jane (1979), "A Profile of Responses to Commercials," *Journal of*

Advertising Research, 19 (2), 37-46.

Smith, Craig A., and Phoebe C. Ellsworth (1985), "Patterns of Cognitive Appraisal in

Emotion," *Journal of Personality and Social Psychology*, 48 (4), 813–38.

Stayman, Douglas M., and Rajeev Batra (1991), "Encoding and Retrieval of Ad Affect in

Memory," *Journal of Marketing Research*, 28 (2), 232-39.

Wells, William D. (1964), "EQ, Son of EQ, and the Reaction Profile," *Journal of*

Marketing, 28 (4), 45-52.

———, Clark Leavitt, and Maureen McConville (1971), "A Reaction Profile for TV

Commercials," *Journal of Advertising Research*, 11, 11- 17.

Yani-de-Soriano, Mirella, Gordon R. Foxall, and Andrew J. Newman (2013), "The

Impact of the Interaction of Utilitarian and Informational Reinforcement and

Behavior Setting Scope on Consumer Response," *Psychology and Marketing*, 30

(2), 148-59.

Appendix I. Examples of Stimuli.

Stimulus NO. 6 (Fear, War Death)

They died in the WARS in Iraq and Afghanistan in 2014.

Stimulus NO. 10 (Anger, Secondhand Smoking)

Secondhand smoke in the public hospitalizes 87,000 US children a year.

Stimulus NO. 11 (Anger, Secondhand Smoking)

Secondhand smoke in the public hospitalizes 87,000 US adults a year.

Stimulus NO. 14 (Fear, War Death)

They have died fighting the WARS in Iraq and Afghanistan in 2014.