Travel and Tourism Research Association: Advancing Tourism Research Globally

Revisiting the influence of emotion on tourism advertising effectiveness using psychophysiological methods

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Introduction

This study aims to investigate the influence of both higher-order and lower-order emotional responses evoked by destination advertisements on three variables of major interest in tourism advertising: attitude towards the advertisement (Aad), post-exposure destination attitude (Adp) and visiting intention (VI). A large body of advertising literature has indicated that emotion acts as an important precursor of other consumer responses such as attitudes towards the advertisement and brand (Holbrook & Batra, 1987), brand interest (Morris, Woo, Geason, & Kim, 2002), and purchasing intention (Morris et al., 2002). However, the power of emotional responses in predicting advertising effectiveness has not been discussed in the context of tourism advertising. Tourism advertising is unique in that it often focuses on the experiential aspects of a destination. Further, the majority of previous advertising research has measured consumers' emotional responses via a self-report questionnaire which is only capable of capturing higher-order emotional responses. This is inconsistent with the notion that advertisement processing itself is an unconscious process, which mainly involves lower-order pleasure and arousal (Poels & Dewitte, 2006). Given this, this study aims to extend our understanding of emotional response by investigating the influence of lower-order (unprocessed) emotions on advertising effectiveness. The study will examine which types of emotional responses (i.e., higher-order or lower order emotional responses or combined effects) are the more reliable indicator of advertising effectiveness. As suggested in the literature, lower-order emotional responses will be measured using psychophysiological techniques (i.e., facial EMG and skin conductance) and higher-order emotional responses will be measured using a self-report questionnaire (with both verbal and visual self-report scales)

Brief literature Review

Higher-order and lower-order emotions are two types of affective reactions involved in an individual's response to an external stimulus. The difference between these two types of emotions is how much cognitive processing is involved before the emotion is formed (Poels & Dewitte, 2006). **Lower-order emotions**, also known as 'type 1 emotions' (Rossiter & Bellman, 2005), mainly involve pleasure and arousal that do not require individuals to cognitively label them or acknowledge their existence. Some scholars refer to the lower-order emotions as 'unconscious emotions' that are uncontrollable and beyond individuals' subjective awareness (Berridge & Winkielman, 2003). Lower-order emotions can be seen as the primitive emotions that are experienced by higher animals and humans (Bellman, 2007), which cannot be measured by self-report measures (Drozdova, 2014). **Higher-order emotions**, on the other hand, require the person to cognitively evaluate the situation and tag the affective response as a specific emotion such as happiness, delight or excitement. Rossiter and Bellman (2005) also call these 'type 2 emotions'. These emotions are more complex and require cognitive appraisals to 'identify the emotion, justify it and plan future action in relation to it' (Bellman, 2007, p. 21). Similarly, Shiv and Fedorikhin (1999, p. 279) asserted that high-order emotional responses arise from 'more controlled, higher-order processes that involved thinking, reasoning and consciousness'.

On the basis of Rossiter and Bellman's (2005) original work defining these two types of emotions, Bellman (2007) further discussed how these two types of emotions should be measured. Specifically, lower-order emotions should be measured by psychophysiological methods such as skin conductance whereas high-order emotions should be measured by self-report ratings. In line with Bellman's (2007) proposition, Poels and Dewitte (2006) posited that psychophysiological measures are valid techniques for the measurement of lower-order emotions although such methods have not been fully integrated in advertising research. Most existing advertising research examining the influence of emotional responses on advertising effectiveness is based on self-report measurement of emotions. As Poels and Dewitte (2006) noted, we need studies that compare the predictive power of autonomic measures with self-report measures (e.g., how these different measurement types are related to other advertising outcomes such as purchasing intention).

Derbaix (1995) adopted both a Facial Action Coding System (FACS) and self-report ratings to measure consumers' emotional responses to a series of advertisements. It was found that emotions measured by self-report are predictive of attitude towards the advertisements and brand, whereas emotions captured by FACS are not. FACS codes visible muscle movements, which need to be manually labelled as specific emotions (Poels & Dewitte, 2006). Several researchers have criticized the use of FACS, claiming it is inaccurate for capturing minor variances in facial muscle movements (Bolls, Lang, & Potter, 2001; Poels & Dewitte, 2006; Ravaja, 2004). Some claim FACS is only suitable for capturing intense facial expressions (Drozdova, 2014).

On the basis of Derbaix's (1995) work, this study attempts to overcome the criticism of FACS by adopting more sophisticated psychophysiological techniques (i.e., facial EMG and skin conductance measures) and further examines the power of lower-order emotion and high-order emotion in predicting tourism advertising effectiveness. In particular, attitude towards the advertisement (Aad), post-exposure destination attitude (Adp) and visitation intention (VI) will be used as the variables to measure tourism advertising effectiveness. The proposed conceptual framework can be seen in Figure 1. Facial electromyography (fEMG) measures electrical signals involved in subtle facial muscle movements and is capable of detecting facial muscle contractions in response to weakly evocative affective stimuli even though no overt facial expressions are noticed (Tassinary, Cacioppo, & Vanman, 2007). As recommended by Drozdova (2014), facial EMG should replace FACS to provide more accurate results when accessing lower-order emotional responses. Skin conductance will also be used to measure individuals' arousal levels. Based on the previous literature, two major research questions are proposed:

R1: Are lower-order emotional responses a better predictor of advertising outcomes than higher-order responses?

R2: Which dimension of emotion (pleasure or arousal) is more predictive of tourism advertising effectiveness?
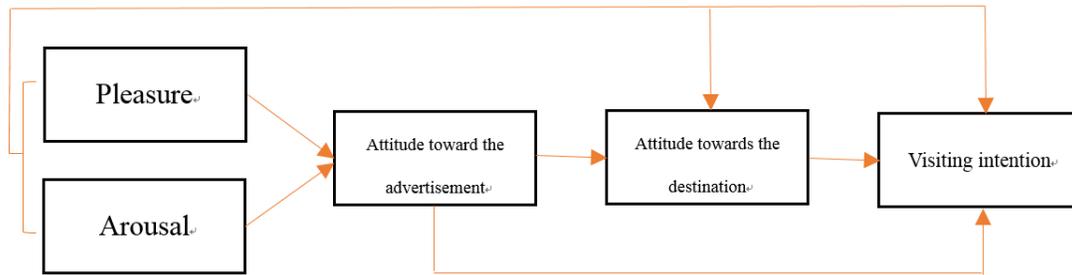
Figure 1 Proposed conceptual framework for emotion and destination advertising effectiveness

Proposed methodology

Participants and stimuli

Approximately one hundred university students and staff from an Australian university will participate in this study. Eighteen destination advertisements will be selected as the stimuli. The advertisements will be chosen from DMO websites and they will cover a variety of emotional appeals and executions. Six categories of advertising appeals will be included (three advertisements in each category): humor (H), romance (r), adventure (A), youth (Y), family (F) and rationality (R). These appeals are commonly seen in tourism advertising and are expected to appeal to students and staff. A jury of 10 students will be asked to evaluate an initial sample of 60 tourism advertisements in terms of the intensity level of humor, romance etc. on a ten-point scale. On the basis of the mean scores, the top 3 commercials for each category will be selected as the stimuli in this study.

There will be one practice commercial (P) at the beginning of the data collection session that will not be analyzed. For these nineteen commercials (18 advertisements + 1 practice commercial), **three patterns** will be built as shown below. The order of the commercials in the brackets will be randomized to avoid potential order effects. Each of the six commercials in the bracket will focus on a different destination. Approximately 33 participants will be assigned to each of the patterns.

(1) P, [Had1[1],rad1, Aad1,Yad1,Fad1,Rad1]
(2) P, [Had2,rad2, Aad2,Yad2,Fad2, Rad2]
(3) P, [Had3,rad3, Aad3,Yad3,Fad3,Rad3]

Measurement

Lower-order emotional measures: (1) Physiological pleasure: facial EMG (2) Physiological arousal: skin conductance

Higher-order emotional measures: (1) Verbal self-report: both pleasure and arousal dimensions will be measured by multiple affective adjectives with a 7 point scale. (2) Visual self-report: Self-Assessment-Manikin (SAM)

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[1] Had1 is the abbreviation of humor appeal advertisement 1. Similarly, rad1 is romance appeal ad1, Aad1 is adventure appeal ad1, Yad1 is youth appeal ad1, Fad1 is family appeal ad1, and Rad1 is rational appeal ad1.

Advertising effectiveness measures: (1) Attitude towards the advertisement (2) Post-exposure attitude towards the destination (3) Visitation intention

Other measures: (1) Pre-exposure destination attitude (2) Mood scale: participants' moods before they participate in the data collection session may influence their emotional responses.

Manipulation check

To ensure that the target advertisements are perceived as intended, the participants will be asked to indicate the intensity level of humor, romance etc. on a ten-point scale for each advertisement they watch (this will allow further comparison among different types of appeal).

Procedure
The sequence of procedure can be seen in Figure 2. Participants will be tested one at a time in the research laboratory. The data collection is expected to last around four months from December 2015 to March 2016.
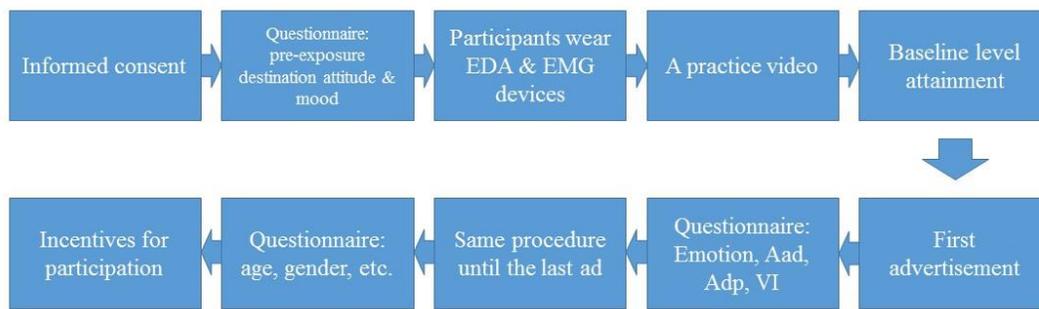

Figure 2 the sequence of the procedure

Expected outcomes

This study will examine the relationship between emotion, attitude towards the advertisement, post-exposure attitude towards the destination and visitation intention based on two approaches to measuring emotions, the results of which are expected to identify which types of emotional responses (i.e., lower-order or higher-order emotional responses) are more predictive of destination advertising effectiveness operationalized by Aad, Adp and VI. The use of six different types of tourism advertising appeals can also allow further comparison among different appeal categories.

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