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Forced or Inspired: Understanding Consumers' Cognitive Appraisals and Behavioral Responses towards Online Advertising

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ABSTRACT

Drawing upon the coping theory and the stimulus-organism-response (S-O-R) model, this paper proposes a research model to understand consumers' behavioral responses toward online ads. We posit that a combination of primary appraisals (perceived gain/loss) and secondary appraisals (perceived control) of ads' design features influences consumers' emotional states (positive affect vs. negative affect) and motivational states (reactance vs. inspiration) that further lead to their behavioral responses. The behavioral responses are conceptualized along two dimensions: behavioral directions (approach vs. avoidance) and intensity of behavioral efforts (active vs. passive). This study contributes to the extant literature by emphasizing both the negative and positive aspects of consumers' interactions with online ads and incorporates the effects of emotional and motivational states in mediating and influencing consumer behaviors. It can also potentially have practical implications in improving online advertising design.

Keywords

Cognitive appraisal, reactance, inspiration, ad features, behavioral responses, motivational states, emotion

INTRODUCTION

Consumers may have mixed evaluations and attitudes toward online ads and adopt different strategies to deal with them. A majority of prior studies mainly focus on the negative side of online ads, such as intrusiveness, irritation, and avoidance (Baek & Morimoto, 2012; Cho & Cheon, 2004; McCoy, Everard, Polak, & Galletta, 2007; Prendergast, Wah-leung, & West, 2010). Yet, only a few studies investigated the positive sides of online advertising, such as its contribution to brand awareness. The recognitions of the negative or positive sides of those online ads lead to distinct consumer behavioral responses.

Behavioral responses are manifested actions undertaken by individuals in response to encounters in internal or external environments. Many prior studies have focused on the directional aspect of behavioral responses and summarized approach and avoidance as two general behavior types (Clark, Ezell, Clark, & Sheffield, 2009;

Eroglu, Machleit, & Davis, 2003; Mehrabian & Russell, 1974). Yet, the variation of behavioral responses is not limited to the directional difference. Another important aspect is the amount of behavioral efforts a person invests in performing the action. For instance, consumers may be willing to make more efforts to take actions under some circumstances than they would in other situations. The magnitude dimension of behaviors, captured by active-passive behaviors, adds to the approach-avoidance dimension to provide significant meaning to understand consumer behaviors.

In this study, we emphasize both positive and negative sides of consumer interactions with online ads. To better understand the antecedents of behavioral responses to online ads, we develop a research model on the basis of the coping theory and the S-O-R model to depict the direct and indirect effects of ad features on cognitive appraisals, emotional and motivational states, and subsequent behavioral responses.

THEORETICAL FOUNDATION

The Coping Theory

Facing unwanted or annoying online ads, consumers may go through a coping process. The coping theory is proposed by Lazarus and Folkman (Folkman, 1992; 1984) to describe procedures of stress coping. The primary appraisal is the judgments of the influences of an encounter on a person: irrelevant, benign-positive, or stressful. The secondary appraisal is concerned with what can be done to cope with the encounter. In the process of primary appraisal, the person asks "what do I have at stake in this encounter?" and in the process of secondary appraisal, the question is "what can I do?" (Lazarus & Folkman, 1984). Beaudry and Pinsonneault (2005) provides a step further to explain how coping theory can be applied to understand user adaptation behavior when they encounter innovative IT event in working environment. The primary appraisal is one's assessment of the expected consequences of an IT event (opportunity vs. threat), and the secondary appraisal is the assessment of one's control over the situation (high vs. low).

The Stimulus-Organism-Response Model

Mehrabian and Russell (1974) propose a stimulus-organism-response (S-O-R) framework to summarize the effects of environmental stimuli (physical or social) on human emotional responses, and subsequently, their behaviors (approach vs. avoidance). Stimuli are the objective features in the physical environment, which directly affect a person's emotional state and subsequent behaviors. Emotion states would also mediate the effects of environmental stimuli on the person's behavior responses. Approach behavioral response indicates that the person stays and enjoys the external environment, whereas avoidance behavioral response indicates the person leaves or escapes from the environment.

The S-O-R model has been used in different research contexts to investigate interplays between behavioral settings and human beings, and has been particularly popular in enhancing the understanding of atmospheric effects in in-store and online shopping (Eroglu, Machleit, & Davis, 2001; Eroglu, et al., 2003; Huang, 2003; Parboteeah, Valacich, & Wells, 2009; Turley & Milliman, 2000).

RESEARCH MODEL AND PROPOSITIONS

The Research Model

The S-O-R model provides a theoretical base to construct our proposed research model (Figure1). It explicitly lays out the boundaries and sequences of ad stimuli, emotion states as well as behavioral responses. The application of the coping theory assists the conceptualization of cognitive appraisals of positive side (opportunities or gains) and the negative (threats or losses) side. Therefore, we propose to include four major components to present a systematic view of the consumer-ad interactions: ad features, cognitive appraisals, emotional and motivational states, and behavioral responses. Ad features are stimuli that affect two types of cognitive appraisals: primary appraisal (perceived gain and perceived loss) and secondary appraisal (perceived behavioral control and perceived stimulus' controllability). The results of two types of cognitive appraisals lead to consumers' formation of their emotional and motivational states, which may influence four types of behavioral responses respectively.

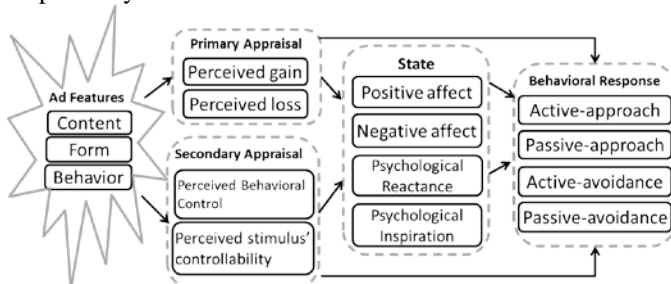


Figure 1. A Proposed Research Model on Behavioral Responses to Ad Features

Behavioral Responses

Behavioral responses are manifested actions in response to changes of emotion states elicited by the environmental stimuli (Mehrabian & Russell, 1974), behavioral outcomes adopted by a person after the appraisal processes (Lazarus & Folkman, 1984), or energized actions driven by motivational states. In the context of online advertising, some studies investigate consumer behaviors in terms of general directions such as approach vs. avoidance, while others examine specific behavioral responses, such as clicking behaviors, durations of viewing, purchases, revisits, etc. (McCoy, Everard, Polak, & Galletta, 2008; Wang & Sun, 2010). We plan to study behavioral responses with a two-dimensional view shown in Table 1.

Directions of Behavioral Response

Ample evidence supports the directional dimension of behavioral responses. Approach and avoidance are recognized as fundamentally different concepts in motivation and decision theories (Elliot, 2006; Liang & Xue, 2009). For instance, Elliot (2006) states approach-avoidance are distinct energization directions. Approach motivation encourages behaviors towards the positive stimuli, whereas the avoidance motivation leads to behaviors away from the negative stimuli. Approach and avoidance are also conceptualized as actual behavioral responses in S-O-R related literature (Fishbein & Ajzen, 1975; Mehrabian & Russell, 1974) and in the stress coping literature (Roth & Cohen, 1986; Skinner, Edge, Altman, & Sherwood, 2003).

In our study, we use approach and avoidance to indicate actual behavioral responses. Two general ways of studying approach-avoidance behaviors in extant literature are: 1) treating them as two ends of a bipolar continuum that differ in magnitude (Clark, et al., 2009); and 2) viewing approach-avoidance as distinct human behaviors measured by different scales (e.g., Finset, Steine, Haugli, Steen, & Laerum, 2002; Yani-de-Soriano, Foxall, & Newman, 2013), because they are associated with different biological brain structures (Sutton & Davidson, 1997). Those studies treat approach and avoidance as basic behavioral directions without further probing the magnitude issue. Only a few studies touch upon the magnitude aspect. For instance, Finset et al. (2002) classified avoidance behaviors as: 1) a passive or disengaged way of dealing with stressful events or 2) an active orientation away from the stressor. However, these studies are very fragmented and lack a systematic discussion of effort magnitude.

Intensity of Behavioral Efforts

The terminology of active-passive is used to represent coping strategies that have been adopted by people to deal with affect, arousal, and stress (Asmus & Bell, 1999; Hobfoll, Dunahoo, Ben-Porath, & Monnier, 1994). Bongard (1995) differentiates active coping and passive

coping by its influences to the outcome of an event. Active coping occurs when an individual can influence the outcome, which also requires enhance effort, whereas passive coping happens when an individual have no influences on the outcome, which involves little effort. Active or passive coping can be reflected by cardiovascular responses, such as heart rate and blood pressure in the area of the psychophysiology (Bongard, Pfeiffer, Al'Absi, Hodapp, & Linnenkemper, 1997). Active and passive dimension is also used to understand the social networking sites usage. An examples of active behaviors is posting, yet viewing is considered as a type of passive behavior (Pagani, Hofacker, & Goldsmith, 2011). These studies inexplicitly use the intensity of effort as an indicator to interpret individual behaviors.

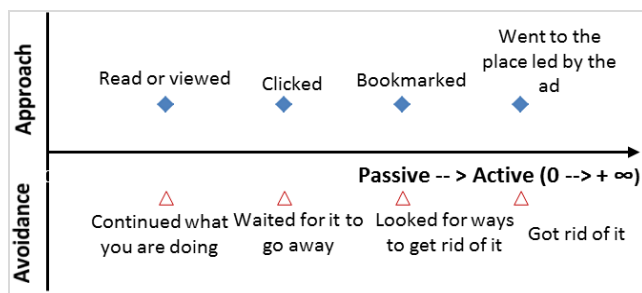
In the research model, we explicitly focus on the behavioral effort (not the mental effort) and propose to use active-passive dimension to represent the magnitude difference of behavioral efforts.

Four Types of Behavioral Responses

Table 1 lists brief descriptions of four types of behavioral responses across two dimensions: active-approach, passive-approach, active-avoidance, and passive-avoidance. Figure 2 is a visualization of examples of behavioral responses in a two-dimensional space in the context of online advertising.

		Behavioral Direction	
		Approach	Avoidance
Intensity of Behavioral Effort	Active	Make behavioral efforts to move toward the stimuli	Make behavioral efforts to move away from the stimuli
	Passive	Make little behavioral efforts yet move toward the stimuli	Make little behavioral efforts yet move away from the stimuli

Table 1. A Two-Dimensional View of Consumers' Behavioral Responses to Online Ads



Note: The intervals between dots along the passive-active axis is not significant to indicate the differences of intensity of behavioral effort

Figure 2. Visualization of Behavioral Responses in A Two-Dimensional Space

Emotional and Motivational States

Emotion and motivational states are the immediate antecedents of behavioral responses. The experience of emotions (positive affect vs. negative affect) and

motivational states (inspiration vs. reactance) are associated with different types of behavioral responses.

Positive Affect and Negative Affect

Emotions are induced affective states triggered by stimuli in one's environment (Zhang, 2013). Positive affect and negative affect are two dominant dimensions of affective structure in ICT evaluation (Zhang & Li, 2007). Watson and Clark (1988) argue that positive affect and negative affect are not necessarily two opposite factors, and they can be represented as orthogonal dimensions. Positive affect (PA) reflects the "extent to which a person feels enthusiastic, active, and alert;" while negative affect (NA) is "a general dimension of subjective distress and unpleasant engagement that subsumes a variety of aversive mode states, including anger, contempt, disgust, guilt, fear, and nervousness" (Watson, et al., 1988, p.1063). PA involves feelings of energy, confidence, and enthusiasm and is posited to direct approach behavior, whereas NA refers to feelings of nervousness and fear, is associated with behavioral inhibition system and leads individuals to avoid the trouble (Carver, 2001; Watson et al., 1999).

PIa: Positive affect positively influences active-approach and passive-approach behavior, whereas it negatively influences active-avoidance and passive-avoidance behavior.

PIb: Negative affect negatively influences active-approach and passive-approach behavior, whereas it positively influences active-avoidance and passive-avoidance behavior.

Psychological Reactance and Psychological Inspiration

Psychological reactance (J. W. Brehm, 1966; S. S. Brehm & Brehm, 1981) is the motivational state that a person experience when their behavioral freedom is threatened. In the IS literature, psychological reactance has been used to explain users' interface preferences (Murray & Häubl, 2011), information technology adoption (Lee & Lee, 2009), and technology acceptance (Zhang, 2008). In the marketing literature, psychological reactance is used to explain consumers' responses to freedom-threatening events, such as promotional influences, sell tactics and persuasion (Clee & Wicklund, 1980; Edwards, Li, & Lee, 2002; Morimoto & Chang, 2006). Two major sources of threats to freedom are personal threat (social influence) and impersonal threat (barrier). Design features of online ads that impede freedom of user behaviors are considered as impersonal threats.

Compliance and defiance are two types of behavioral strategies adopted by individuals when they experience reactance (J. W. Brehm, 1966). The compliance-based behavior indicates that although individuals' freedom of thinking and acting are manipulated or limited, they still choose to follow the planned routine; the defiance-based behavior refer to the actions that individuals take to fight against the desired routine. The compliance-base

behavioral strategy matches the passive-approach behavior in response to reactance-aroused situation, and the defiance-based behavior is consistent with the active-avoidance behavior.

P2a: Psychological reactance positively influences active-avoidance behavior.

P2b: Psychological reactance positively influences passive-approach behavior.

Unlike psychological reactance, psychological inspiration usually indicates the emergence of new possibilities that have not been recognized by a person. Inspiration is a motivational state evoked by a trigger (stimulus objects) and directed towards a target, which involves the energization and direction of behavior (Thrash & Elliot, 2003). Inspiration is conceptualized as having three core characteristics: 1) transcendence; 2) evocation, and 3) motivation (Thrash & Elliot, 2003, 2004). Transcendence indicates the recognition of better possibilities; evocation refers to the fact that inspiration is evoked and not initiated; motivation represents the forward movement energized and directed by inspiration (Thrash, Elliot, Maruskin, & Cassidy, 2010). We argue that online advertisements are not always detrimental to consumers' online experience; instead, it is very likely that consumers are inspired by the online ads or surprisingly recognize some opportunities or values. For instance, online ads promoting charity or non-profit groups can be inspirational to some viewers, who may follow those ads.

P3: Psychological inspiration positively influences active-approach behavior.

Perceived Gain/Loss

The primary appraisal is an individual's assessment of expected consequences of an encounter (Beaudry & Pinsonneault, 2005). Lazarus and Folkman (1984) summarize three types of primary appraisal outcomes, which are irrelevant, benign-positive, and stressful. The irrelevant encounters can easily fade away, because people do not even care about them. The other two types of appraisal outcomes represent distinct influences an encounter can have on a person. Gain and loss, materially, psychologically, or socially, represent essential differences between positive and negative appraisal outcomes. Perceived gain and perceived loss are constructed as consumers' perceptions of two major cognitive appraisal outcomes when encountering with the online ads.

Perceived gain is the perception of benefits that an encounter can bring to satisfy certain personal needs. Consumers' assessment of gains from interacting with online ads can be the amount of resources (e.g., save time, save money) saved or the amount of resources that is unexpectedly received because of the ad encounter. Such a perception would act as some unexpected realization, thus consumers would have sense of inspiration. In

addition, thus a perception should lead to consumers' positive feelings. Therefore, we posit:

P4a: Perceived gain has a positive effect on psychological inspiration.

P4b: Perceived gain has a positive effect on positive affect.

Perceive loss is the result of the cognitive appraisal of harm or threats that an encounter can lead to personal well-being. Consumers' estimation of threats of online ads reveals their assessment of the potential loss of resources, such as waste of time, invasion of privacy, interference with normal work and so on. Thus, we posit:

P5a: Perceived loss has a positive effect on psychological reactance.

P5b: Perceived loss has a positive effect on negative affect.

Perceived Control

According to the coping theory, the secondary appraisal is about what can be done by individuals to restore their psychological well-being. Beaudry and Pinsonneault (2005) outline three main objects of control appraisal in the context of IT events in working environment (work, self, and technology). Control over *work* refers to the degree to which users feel they have the autonomy over their jobs in response to IT events. Control over *self* indicates users' beliefs of their abilities to adapt to the new working environment. Control over *technology* refers to users' feeling of their influences on the features or functionalities of technology. Consumers' interactions with online ads generally happen in the casual environment, so we choose to study control over *self* and control over *technology* in our research context.

In our research model, perceived behavioral control represents control over *self* in the context of encountering online ads; it is one's belief of his/ her ability to take actions in response to online ads. Perceived stimulus' controllability captures the aspect of control over *technology*; it represents consumers' perception of the extent to which the features or properties of encounters are controllable. We would like to clarify our annotation of the difference between perceived behavioral control and perceived stimulus' controllability. Perceived behavioral control focuses on individuals' belief of their capabilities of controlling the encounter; whereas perceived stimulus' controllability is the perception that properties of the encounters that are controllable. For instance, perceived behavioral control over moving a heavy desk is an individual's belief that he or she is capable of moving that desk. While perceived stimulus' controllability is an individual's perception that the desk has some features such as handles or wheels etc. that would allow him/her to move it.

Perceived behavioral control

Perceived behavioral control implies that people have the complete volitional control over behavior of interest, and the level of perceived behavioral control is positively related to a person's intention to perform the behavior and increased effort (Fishbein & Ajzen, 1975). We further elaborate the perceived behavioral control as the degree of one's estimation of his/ her capabilities to take control over the situations, which may further influence his/ her emotional and motivational states.

P6a: Perceived behavioral control has a negative effect on psychological reactance.

P6b: Perceived behavioral control has a positive effect on positive affect, and has a negative effect on negative affect.

Perceived stimulus' controllability

The controllability of stressors that a person confronts is an important determinant of approach versus avoidance coping strategies (Lazarus & Folkman, 1984; Roth & Cohen, 1986). Conway and Terry (1992) conduct a study to establish the association between the effectiveness of coping strategies and appraised controllability of encounters. We argue that the degree of perceived stimulus' controllability relies heavily on the evaluations of the features or properties of the encounters, which result in different emotional and motivational states. Therefore, we posit:

P7a: Perceived stimulus' controllability has a negative effect on psychological reactance.

P7b: Perceived stimulus' controllability has a positive effect on positive affect, and has a negative effect on negative affect.

Design Features of Online Advertisements

Zhang and Kim (2008) identify six categories of ad features from a meta-analysis of literature, including

movement, content message, onset timing, location, exposure, and other static elements (e.g., color and size). These features are also fragmentally discussed in other studies to be influential factors for users' attitudes and behaviors (Burns & Lutz, 2006; Lohtia, Donthu, & Hershberger, 2003; Wang & Sun, 2010). We argue to examine the features of online advertising from three perspective, ad content, ad form, and ad behavior, which is a parsimonious as well as holistic view of studying the design features of online ads. In the research model, Design features of online ads are visualized as the external encounters that trigger individuals' cognitive, affective, and behavioral reactions.

DISCUSSION AND EXPECTED CONTRIBUTIONS

Personal characteristics, such as individual traits and tendency to take risks, are the dispositional factors that may influence individuals' behavioral responses to online ads. However, in order to ensure model parsimony and being focused in our research, we only consider the salient factors and less studied factors. More work is needed to refine the research propositions, and a field experiment will be underway to test the research model.

This paper can potentially contribute to online user behavior in general and online consumer behavior in particular. We present a positive-negative balanced emphasis to study the interactions between consumers and online ads, and propose to integrate coping theory and S-O-R model to explain the processing mechanism of consumer-advertisements interaction. Then, we argue to investigate the effects of reactance and inspiration in directing and generating behavioral responses. Moreover, the study can also provide guidance for practitioners to improve the ads design.

REFERENCES

(References are removed due to page limit, and are available upon request)