

Emotion Specificity and Consumer Behavior: Anger, Sadness, and Preference for Activity

Derek D. Rucker^{1,2} and Richard E. Petty^{1,2}

We examine the influence of two specific negative emotions (i.e., sadness and anger) on consumers' preference for an advertised product promoting either activity (e.g., exercise) or passivity (e.g., relaxation). On the basis of empirical distinctions between the level of activation accompanying sadness and anger, and drawing upon a mood-as-information perspective, we hypothesized that individuals will have a preference for activity to passivity when in an angry compared to a sad emotional state. Thus, when angry, they preferred a product advertised as active, whereas when sad they preferred a product described in more passive terms.

KEY WORDS: emotion; emotion specificity; persuasion.

The study of emotion has long been recognized as an essential ingredient in the recipe of persuasion. Historically, the notion that understanding human emotions was crucial to persuasion has roots dating back as far as the ancient Greeks, as is evident from the writings of Aristotle (1991). Aristotle, although recognizing the need for logical argumentation, also suggested that an understanding of human emotions was critical for successful persuasion. In contemporary times, understanding the relation between human emotions and persuasion has received considerable empirical attention by social psychologists (see Bless, Bohner, Schwarz, & Strack, 1990; Petty, DeSteno, & Rucker, 2001; Wegener & Petty, 1994) as well as marketers (see Cohen & Areni, 1991; Gardner, 1985; Pham, 1998). Common across the breadth of research programs is the recognition and demonstration that emotions play an incontrovertible role in influencing individuals' judgments and decisions.

¹Department of Psychology, Ohio State University, Columbus, Ohio.

²Address all correspondence to either, Derek D. Rucker or Richard E. Petty at, Department of Psychology, Ohio State University, 1885 Neil Avenue, Columbus, Ohio 43210; e-mail: rucker.46@osu.edu; petty.1@osu.edu.

In this paper, we focus on contributing to the understanding of emotion and consumer behavior by focusing on arguably one of the most important facets of consumer behavior, creating preferences for products and services through the use of persuasion. We first provide a brief summary of the evolution of understanding the interplay between emotion and persuasion, and emotion and human judgment more generally. In particular, we focus on four distinct phases of research that have occurred in the study of emotion and persuasion. In doing so, an important distinction is made between a *valenced approach* to understanding emotion—focusing on whether an emotion is positive or negative—and an *emotion specificity* approach—focusing on the specific nature of emotions of equivalent valence (e.g., sadness and anger; happiness and contentment). In the emotional valence approach, it doesn't matter much if one is talking about general mood states that are positive or negative, or specific emotions of the same valence. In the emotional specificity approach, of course, the focus is on traditional emotions rather than more diffuse moods.³ In addition, we discuss the notion of multiple roles for persuasion variables, and detail potential roles for specific emotions. In particular, we focus on how emotions that are equivalent in valence, but differ in activation level, can influence consumer preference and choice.

THE EVOLUTION OF UNDERSTANDING EMOTION AND PERSUASION

The Emotion Valence Perspective: Main Effects

The majority of initial research on the role of emotion in judgment and persuasion focused on how the *valence* of an emotion or mood—whether positive or negative—influenced judgments and persuasion. In the domain of judgment, research has examined how emotions influence evaluative judgments (Schwarz & Clore, 1983; Strack, Schwarz, & Gshneidinger, 1985) as well as risk assessment (Johnson & Tversky, 1983; Mayer, Gaschke, Braverman, & Evans, 1992). To take one classic example in the domain of risk assessment, Johnson and Tversky (1983) examined the influence of positive and negative emotions on likelihood judgments. Likelihood judgments refer to an individual's belief with regard to how likely or expected it is that a particular event will occur. For example, beliefs about how

³Emotion is seen as a subcategory of affective states, which can be classified into both emotions and moods (cf., Schwarz & Clore, 1996). Emotions are viewed as more specific short-lived internal feeling states, whereas moods are seen as more global and longer term feeling states. Whereas moods are described by their broad valenced category (i.e., positive, negative), emotions can be described both by their valence, and by the specific nature of the emotion (e.g., sadness, anger, contentment, happiness). In the present paper, we use mood, emotional state, and affective state interchangeably when referring to whether an individual is experiencing relative positivity or negativity. We use the term specific emotions to refer to the specific nature of emotions being experienced (e.g., sadness, anger).

likely it is to rain today, or how likely one is to contract cancer are both likelihood judgments. Johnson and Tversky demonstrated that placing participants in a positive or negative emotional state significantly impacted their estimations of how likely various events were. Specifically, they found that a negative emotional state increased the likelihood estimates for negative events (e.g., contracting cancer, heart disease), whereas a positive emotional state decreased the likelihood of the same events. Research by Mayer and colleagues (1992) has also shown the opposite effect on likelihood judgments for positive events.

In the domain of persuasion, early research demonstrated that induced positive moods often yielded greater persuasion (i.e., more attitude change) than induced negative or neutral moods (Forgas & Moylan, 1987; Razran, 1940; Zanna, Kiesler, & Pilkonis, 1970). For example, in one of the earliest studies on mood and persuasion, Razran (1940) placed participants in a positive affective state by giving them a free lunch or a negative affective state by placing them in a room with a noxious odor. Razran found that individuals were more persuaded by political messages when they were in a positive as opposed to a negative affective state. This finding contributed to an initial “main effect perspective” that suggested creating a positive mood in an audience was the key for successful persuasion (for reviews of this early work, see McGuire, 1985; Petty et al., 2001; Petty, Gleicher, & Baker, 1991).

Multiple Roles for Emotion Valence

Although parsimonious, the main effect perspective did not account for various studies in the domain of persuasion in which it was demonstrated that negative affective states (especially fear) could sometimes enhance persuasion relative to positive affective states (Rogers, 1983; Weiss & Fine, 1956). In an effort to accommodate these apparently contradictory findings, researchers drew upon multiprocess theories of persuasion such as the heuristic-systematic model (e.g., Chaiken, Liberman, & Eagly, 1989) and the Elaboration Likelihood Model (Petty & Cacioppo, 1986; Petty & Wegener, 1990). The Elaboration Likelihood Model (ELM) of persuasion, in particular, outlined the multiple processes by which affective states could influence attitudes (e.g., Petty et al., 1991; Petty, Cacioppo, & Kasmer, 1988). The ELM suggested that attitude change can occur via different mechanisms depending on the amount of thinking or elaboration given to processing a persuasive attempt. These different mechanisms could lead the same variable (e.g., positive emotions) to either increase or decrease persuasion depending on the specific mechanism and context (Petty, 1997). A multiprocess framework can help resolve the past inconsistencies in emotion research.

The ELM holds that emotional states can serve in the same multiple roles as other variables (e.g., source credibility) in a persuasion context, and these multiple roles have been examined in several studies (Petty, Schumann, Richman,

& Strathman, 1993; Wegener, Petty, & Smith, 1995). For example, under relatively low levels of thinking or elaboration (e.g., low personal relevance of the persuasion topic; Petty & Cacioppo, 1979), individuals may use their current emotional state to infer their attitudes. If individuals are evaluating a product while in a positive mood they can misattribute this positive feeling to the attitude object and therefore generate a positive attitude toward the product. However, under high levels of elaboration or thinking, emotion can bias individuals' processing such that positive implications are more likely to come to mind when in a positive emotional state and negative implications when in a negative emotional state (e.g., Petty et al., 1993). For example, when in a positive emotional state, people may infer that the positive consequences mentioned in the message are more likely to occur and become more persuaded as a result of this than when in a negative emotional state. When in a negative emotional state, however, negatively framed messages should be more impactful because people should overestimate the likelihood that negative consequences will occur if they do not agree with the message (see Wegener, Petty, & Klein, 1995).

Finally, when individuals are moderate in their level of thinking, emotions can determine whether or not individuals invest the resources to process a message carefully. For example, Wegener and colleagues' (Wegener et al., 1995) work on the hedonic contingency model demonstrated happy individuals were more likely to process a message if they believed it would maintain their happiness, but were less likely to process a message if they believed it had the potential to reduce their happiness. The implication of this, provided a message has strong arguments, is that positive emotions, relative to negative emotions, should lead to more persuasion to the extent that it increases processing and recognition of the message arguments. Conversely, positive emotions, relative to negative emotions should lead to less persuasion by strong arguments to the extent it decreases processing. Some authors have argued that negative moods can sometimes signal that the world is problematic and therefore trigger more processing than positive moods (e.g., Bless et al., 1990; see Petty, Fabrigar, & Wegener, 2003, for further discussion). This is but one example of how positive emotions and moods could either increase or decrease persuasion compared to negative emotions and moods, and it highlights why the early main effect perspective of studying emotion was overly simplistic.

Furthermore, at any given level of thinking, emotions may have different roles. For example, under high levels of thinking, emotions can bias the thoughts that come to mind as noted earlier, but it is also the case that emotions are scrutinized as evidence under high thinking conditions, and can also affect the confidence one has in one's thoughts (see Petty, Priester, & Brinol, 2002). Thus, the multiple roles perspective not only acknowledges that a variable can take on multiple roles as a function of thinking, but that a variable can also have multiple roles under the same level of thinking (for further discussion of the multiple roles of emotion see Petty et al., 2003).

An Emotion Specificity Perspective

Consideration of the multiple roles of emotional valence was a significant advancement in understanding the influence of emotion on persuasion. However, there is still a potential limitation even within this more advanced perspective, albeit one of a very different nature. To this point, the focus on the influence of emotion remained a valenced one—the key role of emotion has been examined by the valence of emotion. A valenced perspective suggests there is no need to distinguish between distinct negative emotions (e.g., anger, fear, sadness) and distinct positive emotions (e.g., contentment, happiness, humility). Although the valenced perspective has the advantage of being parsimonious, numerous scholars have recently recognized that focusing solely on the valence of emotions oversimplifies the complexity of emotional experience. This has led to the investigation of the differential effects of equally valenced emotions, such as sadness and anger, on decision making (Lerner & Keltner, 2001; Nabi, 2003; Raghunathan & Pham, 1999), likelihood estimates (DeSteno, Petty, Rucker, Wegener, & Braverman, 2004; DeSteno, Petty, Wegener, & Rucker, 2000; Keltner, Elsworth, & Edwards, 1993), and amount of processing (Bodenhausen, Sheppard, & Kramer, 1994; Nabi, 2002; Tiedens & Linton, 2001).

To take one example, our own work has examined how sadness and anger, two equally valenced negative emotions can differentially influence perceived likelihoods (DeSteno et al., 2000). As mentioned previously, work by Johnson and Tversky (1983) found that negative emotions inflated the perceived likelihood of negative events compared to positive emotions. A valenced perspective would suggest that this would be equally true of both sadness and anger, as both are negative emotions. However, although it is generally true that both sadness and anger increased the likelihood of negative events, we found that examining the emotional-overtones of events led to an emotion specific matching effect. Specifically, individuals induced to feel angry inflated the likelihood of angering events (e.g., getting stuck in traffic) to a greater degree than the likelihood of sad events (e.g., losing a loved one), whereas individuals induced to feel sad showed the reverse pattern. This occurred because individuals tended to use their emotions and moods as sources of information regarding the state of the world (Clore, Gasper, & Gavrin, 2001; Schwarz & Clore, 1983). That is, angry/sad, individuals perceive the world to be an angering/sad place, and therefore believe angering/sad events are more likely to occur.

In an application of this finding to persuasion, we found that individuals were more likely to agree with a persuasive message describing the negative events that would be avoided, if the negative events were framed to match individuals' emotional states (anger or sadness; DeSteno et al., 2004). Specifically, individuals were more likely to agree with a message if they were angry and adopting the message would mean reducing the occurrence of angering rather than sad

events. In contrast individuals were more likely to agree with a message if they were sad and adopting the message would mean reducing the occurrence of sad rather than angering events. This matching effect was completely mediated as a result of the underlying differences in perceived likelihoods. When angry individuals saw angering events as more likely to occur if the message was not heeded, it lead to a strong desire to heed the advice of the message. Likewise, when sad individuals saw sad events as more likely to occur if the message was not followed, it lead to more favorable attitudes toward the recommendation. A valence perspective cannot account for the interactions observed in this research. Instead, attention to the specific nature of the induced negative emotion is required. Thus, this research along with others mentioned above has demonstrated the importance of not only examining emotions in persuasion, but the importance of examining specific emotions.

Multiple Roles for Specific Emotions

Just as research studying the valence of emotions has begun to focus on the multiple roles emotional valence can play, so too has work on studying specific emotions begun to focus on the multiple roles of specific emotions. Whereas, the influence of specific emotions on likelihoods is hypothesized as occurring under relatively high elaboration conditions (see Desteno et al., 2004), additional research has shown that specific emotional states can also influence the amount of processing (Nabi, 2002; Tiedens & Linton, 2001) when the likelihood of elaboration is not already constrained by other variables. For example, work by Tiedens and Linton has demonstrated that emotions associated with confidence such as anger and contentment lead to a reliance on peripheral cues, whereas emotions associated with uncertainty, such as worry and surprise, lead to more elaborative processing. Furthermore, research by Raghunathan and Pham (1999) has shown that anxiety and sadness promoted different goals in decision making. Sadness primes an implicit goal of reward replacement; anxiety primes an implicit goal of uncertainty reduction. This led participants in a sad emotional state to select high-risk/high-reward gambles over low-risk/low-reward gambles, because the former would be most likely to maximize rewards. Conversely, participants in an anxious state preferred low-risk/low-reward gambles to high-risk/high-reward gambles, because low-risk/low-reward gambles were associated with a greater probability of knowing the outcome (i.e., less uncertainty).

Although an examination of the multiple roles of specific emotions is only beginning to emerge, it is clear that a multiple roles perspective will be needed to fully capture the influence of specific emotions on consumer persuasion and judgment.

THE PRESENT RESEARCH: A NEW ROLE FOR SPECIFIC EMOTIONS

One distinction between equally valenced emotions is the level of activation that accompanies the emotion. Some negative emotions such as anger, stress, and nervousness are accompanied by a state of heightened activation; others, however, such as sadness, depression, and boredom are accompanied by a state of deactivation. Similarly, some positive emotions are accompanied by a state of activation (happiness, elation), whereas others are accompanied by a state of deactivation (contentment, calmness; see Feldman, Barrett, & Russell, 1998 for discussion).⁴ Thus, two similarly valenced emotions, such as anger and sadness, may differ substantially with regard to their level of activation and arousal. In support of the distinction between sadness and anger, there have also been shown to be different physiological markers of anger and sadness. Depression has been found to be associated with decreased left-prefrontal activity (Henriques & Davidson, 1990, 1991), whereas anger has been found to be associated with increased left-prefrontal activity (Harmon-Jones & Seligman, 2001).

In the present research we consider the potential role of emotional activation level in persuasion. We propose that, for emotions of equal valence, the nature of the activation may signal what activities are desirable or appropriate. Specifically, we propose that emotions such as anger, which are accompanied by a state of readiness to act, may signal that activity is desired and lead consumers to prefer events or actions that will facilitate this goal. Conversely, we propose that emotions such as sadness, which are accompanied by a state of deactivation, might signal that inactivity is desired and lead consumers to prefer events that do not require action. This perspective is congenial with the notion that individuals use their emotions as sources of information (Clore et al., 2001; Schwarz & Clore, 1983). However, we propose that in addition to signaling to consumers what the general state of the world is (Bless et al., 1990; DeSteno et al., 2000), specific emotions may signal what type of activities are desirable or appropriate for consumers.⁵

⁴We use the term activation to refer to both physiological and psychological arousal. States of heightened activation can take the form of greater physiological arousal with other physiological accompaniments (e.g., increased heart rate). However, states of heightened activation also can be used to describe the *perception* that an individual is in a state of readiness to act.

⁵An individual's level of activation/deactivation might directly lead to a preference for activity/inactivity (e.g., increased adrenaline might create a need to use it). Alternatively, individuals' cognitive appraisals of how they should behave in different emotional states (e.g., sadness, anger) may create a preference for activity. The latter would suggest actual arousal is not necessary, but only a perception one is in a state of activation. Thus even if an individual is not angry, the belief he or she is angry might, in and of itself, promote a preference for activity. Of course, a perspective incorporating both actual physiological arousal and psychological interpretation is also plausible. Although we do not test these differing explanations, they are worthy of further pursuit.

In an initial test of the idea that people will prefer different kinds of behaviors in different emotional states based on the amount of activity the behaviors require, we asked participants to rate a series of events with regard to how desirable they were (Rucker & Petty, 2004). Although we focused on events that were equally positive, we varied whether the events were associated with action or inaction. Examples of action-related events include: riding a bike, working out at the gym, and going for a run. Examples of inaction-related events include: reading a book, listening to a CD, and taking a nap. When participants were asked to simply rate the events with regard to how desirable they were, there were no differences between events that were action versus inaction oriented. However, when participants were asked to imagine being in either a sad or angering state, an interaction emerged with regard to how desirable the events were. Specifically, individuals who thought about being angry, indicated events associated with action were more desirable than those associated with inaction. In contrast, individuals who thought about being sad indicated events associated with inaction were more desirable than those associated with action. This is congenial with the perspective that individuals use the general level of activation as an indication of what type of events are desirable.

MATCHING SPECIFIC EMOTIONS TO ACTIVITY LEVEL OF MESSAGES

In the present research, we sought to extend our earlier findings to the domain of consumer behavior and persuasion. Given that individuals seem to prefer action when in an angry compared to a sad state, we hypothesized that the attractiveness of the same event (e.g., taking a vacation) can be influenced by whether the event is framed as one of action or inaction. Thus, rather than influencing persuasion by varying the emotional overtones of the events, as in DeSteno et al. (2004), we examined whether persuasion could be increased by matching the perceived activity level of the information in a message to particular emotional states. Furthermore, rather than asking participants what they think their preference would be when imagining a particular mood, as in Rucker and Petty (2004), we manipulated participants' actual emotions through the use of texts that have previously been shown to induce anger and sadness.

We tested our hypothesis in the context of a consumer choice scenario. Specifically, participants are given a choice between two vacation resorts, one framed as a place to engage in activity (active framed) and the other as a place to relax (passive framed). We first present results of pretesting that establishes participants have no innate preference for the active versus passive framed resorts. Next, we demonstrate that experimentally induced anger and sadness shift consumers' preferences toward either the active or passive framed resort.

PRETEST

We began by developing ad materials for two fictitious vacation resorts, Landro and Brensa. For each resort we developed two versions of the advertisement. One version was framed to highlight the active nature of visiting the resort (active frame), whereas the second version was framed to highlight the relaxing nature of visiting the resort (passive frame). For example, the active-frame Brensa advertisement contained phrases such as, “Brensa is perfect for people who want to actively explore over 48 acres of land including: Winding lagoons, tropical gardens, sparkling beaches,” and, “Brensa is for those who are ready for action.” In contrast, the passive-framed Brensa advertisement contained phrases such as: “Brensa is perfect for people who want to relax and rest in over 48 acres of land including: Winding lagoons, tropical gardens, sparkling beaches.” and, “Brensa is for those who are ready to relax.” Similar phrases were used for the active and passive versions of the Landro advertisement.

Although the materials were developed to differ on the overall level of activity/passivity of the vacation destination described, we did not intend for them to differ in their innate desirability. To insure there were no preexisting preferences for each of the vacation frames, a pretest was conducted.

Participants

Twenty-one Ohio State University undergraduates participated in the experiment in partial fulfillment of a course requirement in their introductory psychology course.

Procedure

The students were informed that they would be participating in a research project on consumer judgment and evaluation. Specifically, they were told the present research was examining students’ impressions of several vacation resorts in Orlando, Florida. All participants were told they would receive potential advertising material for two different resorts, and were then given the advertisements for Brensa and Landro respectively. Participants always received a mixed set of advertisements such that one was actively framed and one was passively framed. Thus, participants either received an active-framed Brensa advertisement (Active Brensa) followed by a passive-framed Landro advertisement (Passive Landro) or a passive-framed Brensa advertisement (Passive Brensa) followed by an active-framed Landro advertisement (Active Landro). After participants had read both advertisements they were asked to indicate which of the two resorts they preferred. Participants were then thanked and debriefed.

Independent Variable

Participants were randomly assigned to receive advertisements that consisted of either Active Brensa/Passive Landro frames or Passive Brensa/Active Landro frames.

Dependent Variable

The dependent variable consisted of participants' preference for Brensa versus Landro. This was assessed using both a 9-point Likert item (1 = *strongly prefer Brensa*, 9 = *strongly prefer Landro*) and a dichotomous choice of participants' preference (1 = *Brensa*, 2 = *Landro*). These two items were highly correlated ($r = .91, p < .01$), and thus were standardized and combined to form an index of preference.

PRETESTING RESULTS

The key result of interest was whether there was a preference for active versus passive framed resorts when emotional state was not manipulated. To maximize power to detect a potential difference we collapsed across the Active Brensa/Passive Landro and Passive Brensa/Active Landro conditions. This was accomplished by adjusting the preference measure such that scores above the scale mean always reflected a preference for the active framed destination in both the Active Brensa/Passive Landro and Passive Brensa/Active Landro conditions. That is, high scores in the Active Brensa/Passive Landro condition were reverse scored so that high numbers were associated with a preference for the Active Framed destination (Brensa), whereas scores in the Passive Brensa/Active Landro condition were kept as they were such that high scores equaled preference for the Active Framed Destination (Landro).

Next, we tested this preference score against a mean of zero. The results revealed that the standardized mean ($z = -.01$) did not differ significantly from zero, $t(20) = -.03, p = .98$. Thus, in the absence of any emotion induction, participants seemed to have no preference for active versus passive framed resorts.

EXPERIMENT

Having established that individuals had no default preference for active versus passive framed resorts, our next goal was to examine whether inducing specific emotions created a preference. To examine this issue we manipulated participants' emotional states such that participants were placed in a state of relative anger or sadness. If our hypotheses about emotional specificity and readiness were correct,

we expected that inducing angry and sad emotions would lead to a preference for active and passive framed resorts respectively.

Participants

Forty-three Ohio State University undergraduates participated in the experiment for partial fulfillment of a course requirement in their introductory psychology course. Participants were randomly assigned to one of four experimental conditions: emotional state (Anger, Sadness) crossed with message framings (Brensa Active/Landro Passive, Brensa Passive/Landro Active).

Procedure

Upon arriving, participants were informed they would be completing two separate studies: one designed to examine opinions of events described in magazine articles, and the other to examine consumer judgment and evaluation. In the alleged first study, participants were told they were to carefully read an article from a national magazine and then to respond to specific questions involving their memory for its events. In the supposed second study, participants were informed they would be evaluating several vacation destinations in Orlando, Florida. Participants were told they would receive information about two vacation destinations, and were asked to read the information about each and to answer the questions that followed.

The experimenter also informed participants that the first experiment was investigating how people reflect back on and perceive events after the passage of time. Consequently, participants were informed it was necessary for some time to pass before any responses were provided about the magazine article. Participants were told this would be accomplished by having them complete the second experiment after reading the article, but prior to answering questions about the article. In actuality, the magazine article served as the emotion induction.

Materials were presented and data were collected using MediaLab software (Jarvis, 2002). After the experimenter left the room, participants began the experiment by reading the emotion-inducing article. Immediately after reading the article, participants were presented with the vacation destinations. After participants had read both advertisements they were asked to indicate which vacation destination they preferred. Upon completion of these measures, participants' emotional reactions to the events described in the magazine article were assessed (i.e., the emotion manipulation check).

Participants completed the emotion check after reading and providing their preference for the vacation resorts to reduce their awareness of the emotional

states induced by the articles. Awareness of the manipulation of their emotional states might have resulted in the application of corrective processes to their evaluative judgments (Berkowitz & Troccoli, 1990; DeSteno et al., 2000; Ottati & Isbell, 1996; Schwarz & Clore, 1996; Wegener & Petty, 1997). Given the short time period necessary to complete the vacation resorts portion of the experiment (approximately 5 min), the emotion manipulation check was expected to provide a reasonably accurate (and conservative) assessment of the induced emotional states. After completing the manipulation check, participants answered a series of demographic questions and completed other measures not relevant to this study. Participants were then thanked and debriefed.

Independent Variables

Emotion Induction

Emotion inductions were accomplished by having participants read articles supposedly taken from news magazines (cf., Johnson & Tversky, 1983). The specific induction materials were adapted from those shown in past research to induce states of anger and sadness (see DeSteno et al., 2000, 2004). The anger article described hatred and protests of the United States in the Middle East, whereas the sadness induction article described the effects of a natural disaster on a small village in Africa. Both articles were of approximately equal length. Participants were instructed to picture vividly the events being described as they read the article.

Message Framings

All participants received two advertisements for two different vacation resorts as discussed in the pretest. Half the participants received an Active Brensa frame and a Passive Landro frame, whereas the other half received a Passive Brensa frame and an Active Landro frame. Thus, each participant received an active versus passive framed message, but the vacation resort that was framed as active versus passive was counterbalanced.

Dependent Variables

Emotion Manipulation Check

Participants' emotional reactions to the emotion induction article were assessed with regard to how sad and angering they felt in response to the article. Specifically, sadness was assessed by asking participants how sad, gloomy, and down the article made them feel ($\alpha = .90$) and anger was assessed by asking

participants how angry, irritated, and frustrated the article made them feel ($\alpha = .83$). Each item was assessed on a 6-point scale that asked participants, “How _____ did this make you feel?” (e.g., Sad; 1 = *not at all*, 6 = *very much*).

Preferences

Preference was assessed using the same measures used in the pilot test (i.e., a 9-point Likert item and a dichotomous choice item). Both the Likert scale and the dichotomous measure of choice were highly correlated ($r = .76$, $p < .01$) and thus were again standardized and combined to form an aggregate measure of preference.

RESULTS

Emotion Manipulation

Individuals in the anger induction condition reported being significantly more angry ($M = 4.54$, $SD = 1.33$) than participants in the sad induction condition ($M = 3.68$, $SD = 1.14$), $t(40) = 2.24$, $p = .03$. Conversely, individuals in the sad induction condition reported being significantly more sad ($M = 4.78$, $SD = 1.06$) than individuals in the angry induction condition ($M = 3.51$, $SD = 1.48$), $t(40) = 3.20$, $p < .01$.⁶ Thus, the emotion induction appeared successful.

Preferences

First, there was a significant Emotion induction \times Message framing interaction, $F(1, 38) = 4.28$, $p < .05$. As can be seen in Fig. 1, individuals who received the anger induction indicated a relative preference for the active-framed resort compared to the passive-framed resort (i.e., Active Brensa Compared to Passive Landro or Active Landro compared to Passive Brensa). Conversely, individuals who received the sadness induction indicated a relative preference for the passive-framed resort to the active-framed resort.

We also examined overall preferences relative to the no emotion condition from pretesting. To do this, we first created an overall measure of preference, as in pretesting, by adjusting the preference measure such that scores above the mean (i.e., zero) always reflected a preference for the active-framed resort

⁶One participant from the anger condition was excluded from analyses because this participant reported extremely low levels of anger on the manipulation check. Furthermore, this participant's score was the only score in the induced anger condition that was greater than 2 standard deviations below the mean on the anger manipulation check. This resulted in a final useable sample of 42.

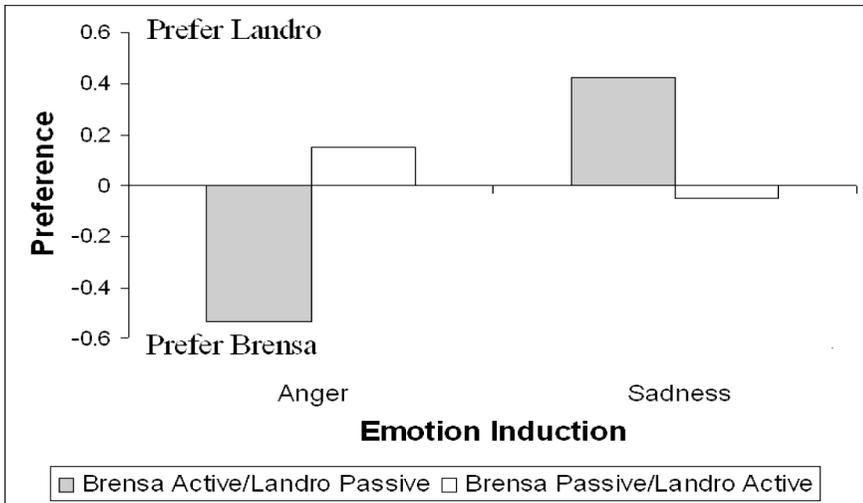


Fig. 1. Emotion induction \times Message framings interaction on resort preference.

and scores below the mean always reflected a preference for the passive-framed resort. As in pretesting, high scores in the Active Brensa/Passive Landro condition were reverse scored so that high numbers were associated with a preference for the Active Framed resort (Brensa), whereas scores in the Passive Brensa/Active Landro condition were kept as they were such that high scores equaled preference for the Active Framed resort (Landro).

On this measure, individuals were more likely to report preferring an active-framed resort over a passive-framed resort when induced to feel angry ($M = .18$, $SD = .95$) compared to sad ($M = -.18$, $SD = .91$), $F(1, 40) = 4.02$, $p = .05$. Figure 2 presents the means for these conditions as well as the neutral condition from pretesting. As can be seen, the anger induction led to a preference moving towards active-framed resorts compared to baseline, whereas the sadness induction led to a preference moving towards passive-framed resorts compared to baseline.

DISCUSSION

This experiment demonstrates that consumers' preferences can be differentially influenced by framing the activity level of the attributes associated with an attitude object to be consistent with consumers' emotional state. Specifically, when individuals were induced to be angry, they indicated a preference for a vacation resort advertised as a place of activity over a vacation resort advertised as a place

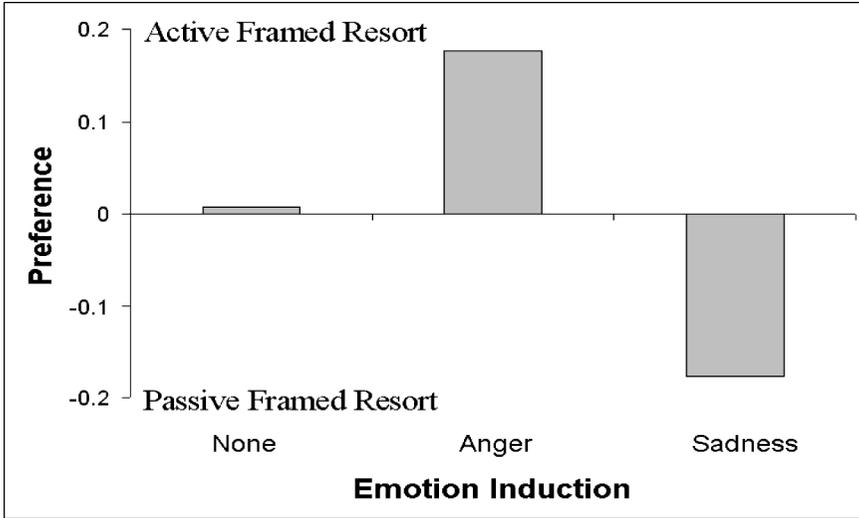


Fig. 2. Preference for active framed and passive framed resorts as a function of emotion induction: none (pretesting), sadness, and anger.

of relaxation. Conversely, when individuals were induced to be sad, they indicated a preference for a vacation resort advertised as a place of passivity over one advertised as a place of activity.

Our research has both theoretical and practical implications for the study of emotion and consumer behavior. Theoretically, our research contributes to understanding the multiple roles specific emotions can play. Past research has suggested that equally valenced emotions can differentially affect likelihood judgments (DeSteno et al., 2000, 2004), information processing (Tiedens & Linden, 2001), and goals (Raghunathan & Pham, 1999). The present research suggests that equally valenced emotions can also influence preferences by signaling the type of event (action or inaction) that is desirable. Emotions associated with heightened activation (e.g., anger) appear to lead to a preference for activity over similarly valenced emotions associated with deactivation (e.g., sadness). Practically, this study has relatively straightforward implications for marketing and advertising. For example, television advertisements might follow a drama that will naturally induce either anger or sadness. Knowing this, the advertisements could be tailored to resonate with the activity level of the emotions. Thus, as in the present research, marketers might focus on the action related activities of a resort if they suspect consumers are likely to be angry, or focus on the inaction related activities if they suspect an audience to be sad. A similar strategy could be applied to other products, such as focusing on the action of driving a car versus the relaxation of having a comfortable ride.

LIMITATIONS AND FUTURE DIRECTIONS

We suggested earlier that anger/sadness leads to a preference for activity/passivity because the nature of the emotion signals to the individual that action/inaction is needed. One alternative explanation for our results is that the selection is a more calculated judgment based on individuals' beliefs about what will alleviate their negative affect. This is agreeable with the perspective that individuals seek to repair negative affective states (Isen, 1984; Taylor, 1991). Thus, rather than being in a state of readiness, in the case of anger, that creates a preference for activity, it might be an individual's belief about what will attenuate the anger that creates a preference for activity.

This might be the case if angry individuals felt that exercise (vigorous activity) would help alleviate their anger more so than relaxation. This explanation, however, does not seem likely for two reasons. First, in general, individuals actually do not seem to naturally gravitate towards repairing negative affective states (Erber & Erber, 2001; Erber & Tesser, 1992). Instead, individuals seem primarily motivated to focus on maintaining positive affective states. For example, work on the hedonic contingency model demonstrated that individuals in a positive affective state were predisposed to attend to information they believed would maintain their positive affective state, whereas individuals in a negative affective state were equally inclined to focus on information that might make them feel better and information that might make them feel worse (Wegner & Petty, 1995). Second, even if individuals did desire to repair their negative affective states, it is not clear why activity would be the natural repair mechanism for anger. It seems equally plausible that individuals might find passive activities as a means of calming down and relaxing, and these might be the more probable route to repair. Nevertheless, this alternative should be examined in future research.

Although the present findings offer initial support to our activity/passivity hypothesis, the generalizability of the findings could be increased in several ways. First, it would be helpful to demonstrate that similar effects occur for equally valenced positive emotions that differ in their activation level. For example, joy and contentment are both positive emotions, but are associated with action and inaction respectively. If our activation level hypothesis is correct, a similar pattern should emerge using positive emotions. Second, although this research examined participants' preferences for active versus passive framed resorts, future research could extend these findings by examining individuals' attitudes. Specifically, not only may individuals' preferences in a forced choice paradigm be influenced by the match between their emotional state and the message frame, but so might their global attitudes. Finally, the use of different emotions and message topics would help to increase the generalizability of this research even further.

A broader direction for future research is to continue to explore the multiple roles specific emotions can play in persuasion. In this research, all participants were

instructed to think relatively carefully about the advertised resorts. This suggests that individuals' preference for activity may be most likely to operate under high levels of elaboration. However, the influence of activity level of emotion could be examined under other levels of elaboration as well. For example, the activation level of an emotion might determine the amount of thinking under relatively moderate levels of elaboration. Individuals who are angry, for instance, may be more inclined to pay attention to active-framed messages than passive-framed messages. This would lead to greater persuasion for anger compared to sadness when active-framed messages had compelling arguments, but would lead to less persuasion for anger compared to sadness when active-framed messages contained specious arguments.

CONCLUSION

The recognition that emotion and persuasion are intertwined dates back to the times of Aristotle. However, empirical investigation of emotion and persuasion is less than a century old. Within this short time we have seen the evolution of the study of emotion go through at least four distinct phases. Each phase has built upon our understanding of how emotion can influence consumer judgment and behavior. This research adds to the knowledge accruing in the fourth phase, multiple roles for specific emotions, but we also hope that it increases researchers' awareness of the need to study emotion not from a valenced and main effect perspective, but from an emotion specific and multiple roles perspective. Such an approach will only help us further understand the relation between human emotion and persuasion.

REFERENCES

- Aristotle (1991). Aristotle, *On Rhetoric: A Theory of Civic Discourse* (G. A. Kennedy, Trans.). New York, NY: Oxford University Press.
- Berkowitz, L., & Troccoli, B. T. (1990). Feelings, direction of attention, and expressed evaluations of others. *Cognition and Emotion*, 4, 305–325.
- Bless, H., Bohner, G., Schwarz, N., & Strack, F. (1990). Mood and persuasion: A cognitive response analysis. *Personality and Social Psychology Bulletin*, 16, 331–345.
- Bodenhausen, G. V., Sheppard, L. A., & Kramer, G. P. (1994). Negative affect and social judgment: The differential impact of anger and sadness. *European Journal of Social Psychology*, 24, 445–462.
- Chaiken, S., Liberman, A., & Eagly, A. (1989). Heuristic and systematic information processing within and beyond the persuasion context. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought: Limits of awareness, intention, and control* (pp. 212–252). New York: Guilford.
- Clore, G. L., Gasper, K., & Garvin, E. (2001). Affect as information. In J. P. Forgas (Ed.), *Handbook of affect and social cognition* (pp. 121–144). Mahwah, NJ: Erlbaum.
- Cohen, J. B., & Areni, C. S. (1991). Affect and consumer behavior. In T. S. Robertson & H. H. Kassarian (Eds.), *Handbook of consumer behavior* (pp. 188–240). Englewood Cliffs, NJ: Prentice-Hall.
- DeSteno, D., Petty, R. E., Rucker, D. D., Wegener, D. T., & Braverman, J. (2004). Discrete emotions and persuasion: The role of emotion-induced expectancies. *Journal of Personality and Social Psychology*, 86, 43–56.
- DeSteno, D., Petty, R. E., Wegener, D. T., & Rucker, D. D. (2000). Beyond valence in the perception of likelihood: The role of emotion-specificity. *Journal of Personality and Social Psychology*, 78, 397–416.

- Erber, M. W., & Erber, R. (2001). The role of motivated social cognition in the regulation of affective states. In J. P. Forgas (Ed.), *Handbook of affect and social cognition* (pp. 275–290). Mahwah, NJ: Erlbaum.
- Erber, R., & Tesser, A. (1992). Task effort and the regulation of mood: The absorption hypothesis. *Journal of Experimental Social Psychology*, *28*, 339–359.
- Feldman, Barrett, L., & Russell, J. A. (1998). Independence and bipolarity in the structure of current affect. *Journal of Personality and Social Psychology*, *74*, 967–984.
- Forgas, J. P. (Ed). (1991). *Emotion and social judgments*. Oxford, England: Pergamon.
- Forgas, J. P., & Moylan, S. (1987). After the movies: Transient moods and social judgments. *Personality and Social Psychology Bulletin*, *13*, 467–477.
- Gardner, M. P. (1985). Mood states and consumer behavior: A Critical Review. *Journal of Consumer Research*, *12*, 281–300.
- Harmon-Jones, E., & Seligman, J. (2001). State anger and prefrontal brain activity: Evidence that insult-related relative left-prefrontal activation is associated with experienced anger and aggression. *Journal of Personality and Social Psychology*, *80*, 797–803.
- Henriques, J. B., & Davidson, R. J. (1990). Regional brain electrical asymmetries discriminate between previously depressed and healthy control subjects. *Journal of Abnormal Psychology*, *99*, 22–31.
- Henriques, J. B., & Davidson, R. J. (1991). Left frontal hypoactivation in depression. *Journal of Abnormal Psychology*, *100*, 535–545.
- Isen, A. M. (1984). Toward understanding the role of affect in cognition. In R. S. Wyer Jr. & T. K. Srull (Eds.), *Handbook of social cognition*, (Vol. 3, pp. 179–236). Hillsdale, NJ: Erlbaum.
- Jarvis, W. B. G. (2000). MediaLab 2000 [Computer software]. New York: Empirisoft.
- Johnson, E. J., & Tversky, A. (1983). Affect, generalization, and the perception of risk. *Journal of Personality and Social Psychology*, *45*, 20–31.
- Keltner, D., Ellsworth, P. C., & Edwards, K. (1993). Beyond simple pessimism: Effects of sadness and anger on social perception. *Journal of Personality and Social Psychology*, *64*, 740–752.
- Lerner, J. S., & Keltner, D. (2001). Fear, anger, and risk. *Journal of Personality and Social Psychology*, *81*, 146–159.
- Mayer, J. D., Gaschke, Y. N., Braverman, D. L., & Evans, T. W. (1992). Mood-congruent judgment is a general effect. *Journal of Personality and Social Psychology*, *63*, 119–132.
- McGuire, W. J. (1985). Attitudes and attitude change. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (3rd ed., Vol. 2, pp. 233–346). New York, NY: Random House.
- Nabi, R. (2002). Anger, fear, uncertainty, and attitudes: A test of the cognitive-functional model. *Communication Monographs*, *69*, 204–216.
- Nabi, R. (2003). Exploring the framing effects of emotion: Do discrete emotions differentially influence information accessability, information seeking, and policy preference? *Communication Research*, *30*, 224–247.
- Ottati, V. C., & Isbell, L. M. (1996). Effects of mood during exposure to target information on subsequently reported judgments: An on-line model of misattribution and correction. *Journal of Personality and Social Psychology*, *71*, 39–53.
- Petty, R. E. (1997). The evolution of theory and research in social psychology: From single to multiple effect and process models. In C. McGarty & S. A. Haslam (Eds.), *The message of social psychology: Perspectives on mind in society* (pp. 268–290). Oxford, England: Blackwell Publishers.
- Petty, R. E., & Cacioppo, J. T. (1979). Issue involvement can increase or decrease persuasion by enhancing message-relevant cognitive responses. *Journal of Personality and Social Psychology*, *37*, 1915–1926.
- Petty, R. E., & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 19, pp. 123–205). New York, NY: Academic Press.
- Petty, R. E., Cacioppo, J. T., & Kasmer, J. (1988). The role of affect in the Elaboration Likelihood Model of persuasion. In L. Donohew, H. Sypher, & E. T. Higgins (Eds.), *Communication, social cognition, and affect* (pp. 117–146). Hillsdale, NJ: Erlbaum.
- Petty, R. E., DeSteno, D., & Rucker, D. D. (2001). The role of affect in attitude change. In J. P. Forgas (Ed.), *Handbook of affect and social cognition* (pp. 212–233). Mahwah, NJ: Erlbaum.

- Petty, R. E., Fabrigar, L. R., & Wegener, D. T., (2003). Emotional factors in attitudes and persuasion. In R. J. Davidson, K. R. Scherer, & H. H. Goldsmith (Eds.), *Handbook of affective sciences* (pp. 752–772). Oxford, England: Oxford University Press.
- Petty, R. E., Gleicher, F., & Baker, S. M. (1991). Multiple roles for affect in persuasion. In J. P. Forgas (Ed.), *Emotion and social judgments* (pp. 181–200). Oxford, England: Pergamon.
- Petty, R. E., Priester, J. R., & Briñol, P. (2002). Mass media attitude change: Implications of the Elaboration Likelihood Model of persuasion. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (2nd ed., pp. 155–198). Hillsdale, NJ: Erlbaum.
- Petty, R. E., Schumann, D. W., Richman, S. A., & Strathman, A. J. (1993). Positive mood and persuasion: Different roles for affect under high- and low-elaboration conditions. *Journal of Personality and Social Psychology*, *64*, 5–20.
- Petty, R. E., & Wegener, D. T. (1998). Attitude change: Multiple roles for persuasion variables. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 323–390). New York: McGraw-Hill.
- Pham, M. (1998). Representativeness, relevance, and the use of feelings in decision making. *Journal of Consumer Research*, *25*, 144–159.
- Raghunathan, R., & Pham, M. T. (1999). All negative moods are not equal: Motivational influences of anxiety and sadness on decision making. *Organizational Behavior and Human Decision Processes*, *79*, 56–77.
- Razran, G. H. S. (1940). Conditioned response changes in rating and appraising sociopolitical slogans. *Psychological Bulletin*, *37*, 481.
- Rogers, R. W. (1983). Cognitive and physiological processes in fear appeals and attitude change: A revised theory of protection motivation. In J. T. Cacioppo & R. E. Petty (Eds.), *Social psychophysiology: A sourcebook* (pp. 153–176). New York, NY: Guilford.
- Rucker, D. D., & Petty, R. E. (2004). *Ready for action? Anger, sadness, and preference for activity*. Unpublished manuscript, Ohio State University.
- Schwarz, N. (1990). Feelings as information: Informational and motivational functions of affective states. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition: Foundations of social behavior*, (Vol. 2, pp. 527–561). New York, NY: The Guilford.
- Schwarz, N., & Clore, G. L., (1983). Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. *Journal of Personality and Social Psychology*, *45*, 512–523.
- Schwarz, N., & Clore, G. L. (1996). Feeling and phenomenal experiences. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social Psychology: Handbook of basic principles* (pp. 433–465). New York: Guilford.
- Strack, F., Schwarz, N., & Gschneidinger (1985). Happiness and reminiscing: The role of time perspective, affect, and mode of thinking. *Journal of Personality and Social Psychology*, *49*, 1450–1469.
- Taylor, S. E. (1991). The asymmetrical effects of positive and negative events: The mobilization-minimization hypothesis. *Psychological Bulletin*, *110*, 67–85.
- Tiedens, L. Z., & Linton, S. (2001). Judgment under emotional certainty and uncertainty: The effects of specific emotions on information processing. *Journal of Personality and Social Psychology*, *81*, 973–988.
- Wegener, D. T., & Petty, R. E. (1994). Mood-management across affective states: The hedonic contingency hypothesis. *Journal of Personality and Social Psychology*, *66*, 1034–1048.
- Wegener, D. T., & Petty, R. E. (1997). The flexible correction model: The role of naïve theories of bias in bias correction. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 29, pp. 141–208). Mahwah, NJ: Erlbaum.
- Wegener, D. T., Petty, R. E., & Klein, D. J. (1994). Effects of mood on high elaboration attitude change: The mediating role of likelihood judgments. *European Journal of Social Psychology*, *24*, 25–44.
- Wegener, D. T., Petty, R. E., & Smith, S. M. (1995). Positive mood can increase or decrease message scrutiny: The hedonic contingency view of mood and message processing. *Journal of Personality and Social Psychology*, *69*, 5–15.
- Weiss, W., & Fine, B. J. (1956). The effect of induced aggressiveness on opinion change. *Journal of Abnormal and Social Psychology*, *52*, 109–114.
- Zanna, M. P., Kiesler, C. A., & Pilkonis, P. A. (1970). Positive and negative attitudinal affect established by classical conditioning. *Journal of Personality and Social Psychology*, *14*, 321–328.