10. THE ROLE OF AFFECT IN ATTITUDE CHANGE

The Role of Affect in Attitude Change

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Affect and persuasion have long been intertwined. Although not by any means a prerequisite for attitude change, the experience of emotion has been believed since the dawn of rhetoric to be one of many variables capable of influencing a message’s persuasiveness. Cicero (55 BCE-170 CE) noted that successful orators of the classical world believed that one important method of persuasion involved the evocation of emotion among listeners. In more modern times, some of the earliest empirical studies of persuasion examined the role of emotional versus rational messages in producing attitude change (e.g., see Chen, 1933; Hartman, 1936). In reviewing much of the more contemporary scientific work regarding the ancient but enduring belief that emotions have an impact on persuasion, McGuire (1985) concurred in the assessment that affect can play an important role in attitude change. The specific question, of course, for philosophers and empiricists alike has centered around the exact role for affect in persuasion. Until very recently, the form of this question and the associated resulting theories reflected what could be termed a main effect perspective. That is, the majority of investigations sought to determine what the one effect of mood or emotion was on persuasion. For example, does positive mood produce more attitude change than negative mood? The fruits of this inquiry from the origins of psychology until the late 1980s produced a plethora of findings suggesting that, in answer to that question, experiencing positive affect often resulted in greater persuasion than negative affect (e.g., Janis, Kaye, & Kirschner, 1965; Forgas & Moylan, 1987; Zanna, Kiesler, & Filkins, 1970; see McGuire, 1985; Petty, Gleicher, & Baker, 1991, for reviews). There were, however, dissenting voices suggesting the opposite was possible. Several studies found that increased persuasion could occur in negative states such as anger (Weiss & Fine, 1986) and fear (see Rogers, 1983). These contradictory findings continue in more recent persuasion research showing that the supposed general effect of positive mood on attitude change appears to be contingent on a variety of factors (e.g., Bless, Bohner, Schwarz, & Strack, 1990; Mackie & Worth, 1989; Wegener, Petty, & Smith, 1995). Thus, it is now quite clear that the preliminary conclusion that positive affect was good for persuasion and negative affect was bad was premature (McGuire, 1985).

What, then, is the role of emotion in attitude change? The relatively recent multiprocess theories of persuasion (e.g., Chaiken, Liberman, & Eagly, 1989; Petty & Cacioppo, 1986) offer a framework within which such varied, and sometimes contradictory, effects of affect can be more clearly understood. Accordingly, research from the 1990s has begun to chart the numerous ways in which emotional experiences can influence persuasion. The question no longer centers on finding the one effect of affect on persuasion, but reflects the more complex nature of the situation by examining the multiple ways in which affect helps or hinders persuasion.
Both the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1986; Petty & Wegener, 1999) and the Heuristics Systematic Model (HSM; Chaiken et al., 1989) dictate that attitude change can occur through different mechanisms depending on the level of effort individuals exert when considering persuasive appeals. Therefore, the manner in which affect has an impact on persuasion also can vary as a function of individuals’ levels of elaboration regarding the message at hand (Petty et al., 1993). According to the ELM, any variable, such as one’s emotional state, can influence persuasion in one of several general ways: (1) it can serve as an item of issue-relevant information when processed as an argument; (2) it can influence attitudes by a peripheral mechanism (e.g., classical conditioning); (3) it can produce a bias to the ongoing information-processing activity; and (4) it can, itself, help to determine the levels of processing in which individuals engage. After a brief discussion of the definitions and structure of the constructs of interest, the remainder of this chapter focuses on explicating how emotional experiences can act in each of these ways depending on a person’s motivation and ability to think about the persuasive message presented.

Before delving into a discussion of the ways in which emotional states can influence persuasion, it is useful to make explicit our definitions and conceptualizations of the key terms. In the present chapter, we use the term affect to encompass the broad range of experiences referred to as emotions and moods, in which emotions are understood as specific and short-lived internal feeling states, and moods are more global and enduring feeling states (cf. Schwarz & Clore, 1996). The term attitude denotes a general evaluation regarding some person, object, or issue (Fazio, 1986; Petty & Cacioppo, 1981). It is important to note that attitudes refer to valenced reactions to specific attitude objects and do not represent a global affective experience on the part of the individual. That is, the person does not experience the positivity or negativity of the attitude as a feeling or emotional state, but as an evaluative orientation toward an object. Therefore, a happy or sad person can, of course, possess both positive and negative attitudes.

To understand the role of affect in persuasion, it is sometimes useful to distinguish between what has been termed attitude relevant affect and irrelevant affect (Petty et al., 1991). Relevant affect implies that one’s moods or emotions stem from consideration of the attitude object. For example, one’s fear of death might be precipitated when considering an antismoking message. Likewise, an individual’s attitude toward another person can appropriately be based on how he or she feels when interacting with this person. Affect, however, can be, and often is, irrelevant or incidental to the attitude object at hand. For example, the feelings induced by a television program are not really relevant to the merits of the advertisements placed within the program. In such cases, the origin of an individual’s emotional state has nothing to do with the attitude object he or she is considering at the moment. Nonetheless, a considerable body of evidence indicates that irrelevant affect can still exert a considerable influence on one’s attitudes (Petty & Wegener, 1998; Schwarz & Clore, 1996; Wegener & Petty, 1996). In fact, much of the research from that on classical conditioning to today’s multiprocess models examines and documents the impact of incidental affect on attitudes and persuasion.

### ATTITUDE STRUCTURE

To better understand the role of affective factors in attitude change, it is helpful to understand the role of affect in the structure of an attitude. Both classic (Smith, 1947; Katz & Stotland, 1959; Rosenberg & Hovland, 1960) and more contemporary (Cacioppo, Petty, & Green, 1989; Tajfel & Markus, 1982; Zanna & Rempp, 1988) treatments of attitudes view them as consisting of up to three evaluative bases: cognitive, behavioral, and affective. That is, although an attitude can contain all three elements, it can also be largely or solely based on one. The cognitive component of attitudes consists of one’s thoughts or ideas, expressed as beliefs. For example, an individual might hold the belief that the president is doing a good job for the country. The behavioral component refers to observable behavior or intention to act. In relation to the president, supporters of the president might have a record of donating money to prior campaigns. Finally, the affective component of attitudes consists of feelings and emotions that individuals experience or have experienced regarding an attitude object. For example, thinking about the president might make one angry. All three components of an attitude can be measured across an evaluative continuum ranging from very negative to very positive. For instance, cognitions can range from perceiving the attitude object as worthwhile to worthless; behaviors can range from ones that foster approaching to avoiding the attitude object; and affect can range from adoration to disgust (e.g., see Crits, Fabrigar, & Petty, 1994; Eagly, Mladinic, & Otto, 1994; Kothandapani, 1971; Ostrom, 1969; Stangor, Sullivan, & Ford, 1991). One’s overall evaluation (attitude) is based on some combination of one’s affect, cognition, and behavioral tendencies toward the attitude object.
ATTITUDE CHANGE WITH RELEVANT AFFECT

As noted earlier, the affect used in a persuasion setting can either stem directly from the attitude object or be completely incidental. We begin our review with the former type of affect and then address the latter. Regarding relevant affect, the vast preponderance of research has examined relevant affect that is part of the persuasive message itself. That is, the message invokes issue-relevant affect.

Affective versus Cognitive Appeals

When attempting to persuade another person, one can appeal to reason and provide information (cognitive appeal), one can provide attitude-relevant behavioral experience (behavioral appeal), or one can attempt to stir the passions (emotional appeal). Researchers have suggested that the initial primary basis of one's attitude (i.e., cognitive, affective, or behavioral) can moderate its susceptibility to subsequent persuasive appeals that are cognitively, affectively, or behaviorally based. Interestingly, the initial work on the links between attitude bases and message bases proved to be contradictory. Some researchers (Edwards, 1990; Edwards & von Hippel, 1995; Fabrigar & Petty, 1999) found more persuasion occurred when the basis of an attitude matched the type of persuasive appeal (e.g., to change an affectively based attitude, an affective appeal was more powerful than a cognitive appeal), whereas others found evidence for a mismatching effect (Millar & Millar, 1990). That is, more persuasion was found to result when persuasive appeals mismatched the basis of the original attitude.

Although the resolution of this discrepancy is uncertain at present, it is possible to generate plausible predictions concerning conditions that might foster matching versus mismatching effects (see Edwards, 1990; Edwards & von Hippel, 1995; Fabrigar & Petty, 1999; Millar & Millar, 1990; Petty, Gleichet, & Baker, 1991). For instance, one possibility is that matching should occur when it is possible to directly overwhelm the basis of the attitude. Thus, matching effects should occur when the basis of an attitude is relatively weak and/or the persuasive appeal is particularly strong because these are the conditions that would foster an undermining of the initial basis of the attitude. In contrast, if the basis of an attitude is extremely strong or the appeal is relatively weak, it is likely to be difficult to completely overwhelm the basis of an attitude with any single persuasive appeal. Indeed, a strong attitude basis might serve as a resource for counterarguing or resisting the appeal. In such cases, matching persuasion to bases could prove relatively ineffective. Thus, it might be more promising to use a mismatched persuasive appeal that provides novel information that does not directly challenge the existing basis. This analysis presumes people are actively analyzing the persuasive information presented. If this is not the case, other possibilities emerge. For example, some people may have a default preference for experiential/emotional messages, whereas other people may have a default preference for rational/logical messages (cf., Epstein & Rosemary, 1999).

Fear Appeals

Without a doubt, the most studied method of promoting attitude change with relevant affect is to incorporate fear-inducing material in the communication. When very strong negative consequences (e.g., cancerous lungs, death) are implied if an advocacy is not adopted, a fear appeal is being attempted, although it is not always certain if such material induces a fearful state. Based on expectancy-value theories (e.g., see Fishbein & Ajzen, 1975), it would appear that such appeals would be very effective because they depict extremely negative consequences as being likely to occur unless the recipient agrees with the message. In fact, a meta-analysis of the fear-appeals literature indicated that overall, increasing fear is associated with increased persuasion (Boster & Mongeau, 1984).

Yet, fear appeals are not invariably found to be more effective. In fact, one of the earliest studies on fear appeals suggested the opposite conclusion (Janis & Feshbach, 1953). There are several factors that militate against the effectiveness of fear appeals. First, even if people view the threatened negative consequence as horrific, they are often motivated by self-protection to minimize the likelihood that some frightening consequence might befall them (e.g., Ditto, Jemmott, & Darley, 1988; Ditto & Lopez, 1992). That is, they engage in "defensive processing." To the extent that this defensiveness can be minimized by encouraging objective processing, the effectiveness...
of a fear appeal can be increased (Keller & Black, 1995). Second, to the extent that the threat is so strong that it becomes physiologically arousing or distracting, message processing could be disrupted (Baron, Inman, Kao, & Logan, 1992; Jepson & Chaiken, 1990). This would reduce persuasion if the arguments were strong. Fear is especially likely to reduce message processing if recipients are assured that the recommendations are effective and the processing might undermine this assurance (Gleicher & Petty, 1992).  

The dominant theoretical perspective in the literature on fear appeals is Rogers’ (1975, 1983) protection motivation theory. Consistent with expectancy-value notions, this model holds that fear appeals will be effective to the extent that the message convinces the recipient that some consequence is severe (i.e., is very undesirable) and very likely to occur if the recommended action is not followed. Importantly, this theory also holds that effective fear messages should also convey that the negative consequence can be avoided if the recommended action is followed and that the recipient has the requisite skills to take the recommended action (see also Beck & Frenkel, 1981; Sutton, 1982; Witte, 1992). Considerable evidence supports these predictions and has also shown that if people do not believe that they can cope effectively with the threat, then increasing threat tends to produce a boomerang effect, presumably as a consequence of attempting to restore control or reduce fear (e.g., Mullis & Lippa, 1990; Rippetoe & Rogers, 1987; Rogers & Mewborn, 1976). In sum, fear seems to be effective when the fear enhances the realization that some consequences are severe and likely, but can be overcome by following the recommendations. If fear is elicited in the absence of these cognitive processes, it is counterproductive.

ATTITUDE CHANGE WITH IRRELEVANT (INCIDENTAL) AFFECT

In the research on affective messages and fear appeals just described, the emotion is induced by and is part of the communication itself. That is, a persuasive appeal attempts to get people to feel happy about a soft drink by having them feel it (Edwards, 1990), or to feel fear about the consequences of not brushing their teeth by showing them rotting teeth (Janis & Feshbach, 1953). In other research, the effects of incidental affect are examined. For example, people are made to feel happy by watching an enjoyable television program (Petry et al., 1993), or winning some money (Worth & Mackie, 1987) prior to presentation of a message on a topic unrelated to the affect induction. The effects of these irrelevant affects have varied depending on whether people are exposed to them under conditions of low-, moderate-, or high-elaboration likelihood.

Effects of Emotional Factors Under Low-Elaboration Conditions

Under conditions of low elaboration, when individuals lack the motivation or ability to process a persuasive message, affect has been shown to function as a peripheral cue and to have an impact on attitudes in a manner consistent with its valence. Thus, positive mood tends to lead to more positive attitudes toward an object, but negative mood elicits more negative attitudes.

Early demonstrations of the effects of mood under conditions of low elaboration can be found in the extensive research on evaluative conditioning (e.g., Staats & Staats, 1958). Classical conditioning is, by nature, a process of simple association, rather than one involving scrutiny of message-relevant information. A number of studies using classical conditioning for studying emotional input (Gouaux, 1971; Griffitt, 1970; Razzan, 1940; Zanna et al., 1970) demonstrated that emotions can influence attitudes by becoming directly associated with the attitude object. Repeatedly pairing an attitude object with stimuli that bring about positive feelings has led to more positive attitudes toward the attitude object compared to pairing an attitude object with stimuli that produce negative reactions.

An early demonstration of the effects of emotions using classical conditioning was conducted by Razzan (1940). In this study, participants were presented with political slogans in one of two contexts: in the context of enjoying a free lunch or in the context of being exposed to noxious odors. Receiving a free lunch placed individuals in a positive affective state, whereas exposure to noxious odors placed individuals in a negative affective state. It was predicted that the message would become associated with the mood experienced by the individual, and therefore the message would be favored more when paired with the free lunch than with the noxious odors, and this was obtained. Individuals who received a free lunch had more positive attitudes toward the slogans than individuals who were exposed to noxious odors. The accumulated studies on classical conditioning are quite
consistent, and relatively recent research suggests that such conditioning effects are strongest when the likelihood of elaboration of the attitude object is low (Cacioppo et al., 1992; Priester et al., 1996).

A second way emotions can influence attitudes under conditions of low elaboration is through the misattribution of one's emotional state to an attitude object (e.g., Zillmann, 1983). Rather than evaluating the merits of a message, one's emotional feeling is used as a simple cue to decide whether the message was good or bad (e.g., "If I'm feeling good, I must like or agree with the message"). Rather than being based on the merit of the message, an individual's attitude is based on the answer to the question "How do I feel about it?" (Schwarz, 1990; Schwarz & Clore, 1983; Srull, 1983, see Clore, Gasper, & Garvin, chap. 6, this volume).

In a pertinent example of the misattribution of mood, Sinclair, Mark, and Clore (1994) used changes in weather as an unobtrusive mood manipulation. College students were exposed to a message arguing for the implementation of comprehensive exams for seniors in one of two conditions. Half the participants were presented with the message when the weather was either pleasant (inducing positive mood), or when the weather was unpleasant (inducing negative mood). Sinclair and colleagues found that, even though mood induced by the weather was irrelevant to the message topic, individuals who were in a positive mood favored the implementation of comprehensive exams relative to individuals in a negative mood. Therefore, mood served as a simple cue that individuals used when forming an attitude toward the message.

Mood is especially likely to have these simple and direct cue effects when people are not inclined to be thinking about the message. Consistent with this, Petty et al. (1993) had participants view a series of commercials, one of which featured the attitude object of interest, a pen. Prior to viewing the commercials, participants' involvement with the target product was manipulated by informing them they would be allowed to choose a pen after seeing the commercials (high involvement) or another, unrelated product (low involvement). Participants' mood was manipulated by embedding the commercial in a television program that invoked either a positive or a neutral mood. After viewing the commercials, participants' attitudes toward the pen were assessed. Positive mood led to more favorable attitudes toward the pen. In addition, path analyses revealed that mood had a direct effect on attitudes when elaboration was low (the low-involvement condition), but had an indirect effect (by biasing thoughts generated) when elaboration was high (high-involvement condition). Similar effects have been observed when individual differences in propensity to think have been examined.

That is, when people are low in need for cognition (Cacioppo & Petty, 1982), moods have a direct impact on attitudes, but when people are high in need for cognition, moods influence attitudes by biasing thoughts (Batra & Stayman, 1990; Petty et al., 1993; see additional discussion below).

Effects of Emotional Factors Under High-Elaboration Conditions

As just noted, moods influence attitudes under high-elaboration conditions, but appear to do so in a different way than under low-elaboration conditions. Under high elaboration, people are carefully scrutinizing persuasive messages for merit. Emotional states themselves can also be scrutinized for their information value. Whereas under low elaboration, people might use their moods as an informative heuristic with relatively little thought ("If I feel good, I must like it"), under high elaboration, moods are subjected to greater scrutiny and can have an impact on attitudes if relevant to the attitude object under consideration. For example, if one's judgment concerns whether a person would make a suitable spouse, the feelings associated with the presence of that person are a central dimension of the merits of that potential companion (Petty & Cacioppo, 1986; Wegener & Petty, 1996). An empirical example of this was presented by Martin, Abend, Sedikides, and Green (1997). In their research, people in either a happy or sad mood were given either a happy or sad story and were asked to evaluate the story and their liking for it. In such a case (in which the "target" story was obviously meant to bring about a particular feeling), the emotion people felt when reading the story was likely to be perceived as a central merit of the story. Consistent with this notion, research participants' evaluations of and liking for the target stories were highest when the emotion before the story (and presumably during the story) matched rather than mismatched the intended effect of the story. When the purpose of the target story was to make people feel sad and people felt sad, the sad story actually led to higher ratings of the story than did a happy story.

Perhaps more often, when people are actively evaluating information about the target (i.e., when elaboration likelihood is high), mood can bias the interpretations of that information, especially if the information is ambiguous (Chaiken & Maheswaran, 1994; Petty, Gleicher, & Baker, 1991; see also Bower & Forgas, chap. 5, this volume). Forgas (1994) refers to this as an "affect infusion" effect (see Forgas, chap. 14, this volume). For example, positive moods might activate more positive interpretations of information than would negative moods (e.g., Bower, 1981; Breckler &
Wiggins, 1991; Ison, Shalkler, Clark, & Karp, 1978). Regardless of whether one conceptualizes such activation in terms of associative networks (e.g., Anderson & Bower, 1973; Bower, 1981) or connectionist models (e.g., McClelland, Rumelhart, & Hinton, 1986; Smith, 1996), happy moods have often been found to make events or objects seem more desirable and/or more likely than the same events or objects appear when in sad or neutral moods (e.g., see Forgas & Moylan, 1987; Johnson & Tversky, 1983; Mayer, Gaschke, Braverman, & Evans, 1992). In addition, it has been shown that specific emotions have specific effects on the perceived likelihood of events such that angry emotional states make angering events seem more likely than sad ones, but sad emotional states make sad events seem more likely than angering ones (DeSteno, Petty, Wegener, & Rucker, 2000).

As noted earlier, explicit evidence of mood-biasing information processing was found by Petty et al. (1993). Under high-elaboration conditions in two experiments (i.e., when people were high in need for cognition or encountered information about a self-relevant product), mood-influenced judgments of the targets by influencing the cognitive responses to the information about the targets. That is, when effortful elaboration of judgment-relevant information was likely, positive mood produced greater positivity in thought content, which in turn influenced evaluations of the targets. Of course, mood would be less likely to exert a biasing impact on processing if there were salient and competing biasing factors operating—such as a strong prior attitude—or if the judgment-relevant information was completely unambiguous (see also Forgas, 1994).

It is also important to note that when moods bias processing, the mood state does not invariably lead to mood-congruent biases in overall evaluation (Petty & Wegener, 1991; Wegener et al., 1994). Using the expectancy (likelihood) × value (desirability) approach to attitude judgments (e.g., Fishbein & Ajzen, 1975), Wegener et al. (1994) found that differential framing of information about target actions led to different biasing effects of mood on assessments of those actions. Specifically, when the arguments in a persuasive message were framed to support the view that adopting the recommended position was likely to make good things happen, a happy mood was associated with more favorable views of the advocacy than a sad mood. However, when the arguments were framed such that failing to adopt the advocacy was likely to make bad things happen, a sad mood was associated with more favorable views of the advocacy than a happy mood. The reason for this was that a happy mood made the goods things that would occur if the advocacy was adopted seem more likely, and the sad mood made the bad things that would occur if the advocacy was not adopted seem more likely. Consistent with the notion of this likelihood/desirability calculus being a relatively effortless activity, the likelihood mediation of mood effects on judgment only took place for people high in need for cognition. Of course, using this same likelihood/desirability view, one could also predict situations in which mood changes the perceived desirability of consequences of adopting the advocacy (thereby providing another means by which mood might bias the effortful assessment of the central merits of an advocacy; see Petty & Wegener, 1991, for additional discussion).

Effects of Emotional Factors Under Moderate-Elaboration Conditions

As mentioned at the outset of this chapter, according to the multiprocess theories that dominate the field of attitudes, variables can influence persuasion in many ways. Sometimes the variable serves as a central merit of consideration, but at other times it influences persuasion by invoking a more peripheral process (e.g., is used as a heuristic). In addition, sometimes variables bias the thoughts that come to mind. Finally, variables can also determine, either in isolation or in concert with other variables, the extent of processing a persuasive appeal receives. Therefore, in instances in which the level of elaboration a message receives is not constrained by other variables to be high or low, an individual's affective state can push processing along the elaboration continuum in one direction or another.

The majority of research in this area documents a general pattern. Individuals experiencing a positive mood have typically been less likely to engage in effortful processing of the information contained in a persuasive appeal in comparison to those experiencing a negative mood (Bless, Bohner, Schwarz, & Strack, 1990; Bohner, Crow, Erb, & Schwarz, 1992; Kiykendall & Keating, 1990; Mackie & Worth, 1989). A study by Bless et al. (1990) is illustrative. Participants in this experiment were asked to remember happy or sad experiences from their past. They were then presented with a message announcing a fee increase at their university. The message used either strong or weak arguments to bolster its point. In addition, participants were told that the study was concerned either with forms of language (a manipulation designed not to influence level of processing) or with the ability of people to evaluate message content (a manipulation designed to induce effortful processing). Results indicated that when the study was presented as examining language use, sad participants were more persuaded by strong than weak arguments, thereby indicating a relatively high level of processing. Happy participants, however, were equally
actions in which he or she can engage that maintain or further elevate the mood state become increasingly limited. However, when an individual is sad, the majority of actions in which he or she can engage tend to elevate mood. Therefore, success in positive mood states (i.e., maintaining one’s positive mood) is highly contingent on the consideration of the hedonic consequences of actions because only a small proportion serves to maintain or elevate one’s affective state further. However, negative mood states require less vigilance because most activities serve to increase mood (see also Erber & Erber, chap. 13, this volume). Because of these contingencies, over time people become more sensitive to the hedonic consequences of their actions in positive rather than in negative emotional states.

In extending the hedonic contingency framework to the study of persuasion, Wegener, Petty, and Smith (1995) noted that the persuasive appeals used in past research examining the effect of emotional states on information processing were comprised largely of negative content (e.g., tuition increases, nuclear waste). Consequently, the lack of effortful consideration of such messages by individuals experiencing a positive mood state might represent a mood-management strategy as opposed to the utilization of feelings-as-information motivational cue. Thinking about a tuition increase, after all, likely would not maintain an already pleasant affective state. Therefore, happy individuals should choose not to process the message in an effortful manner. Sad individuals, being less sensitive to hedonic contingencies, should devote more resources toward message processing. These predictions parallel those stemming from the feelings-as-information framework and are, therefore, in accord with much of the research in this area.

The critical test for the hedonic contingency view involves the case where effortful processing of a persuasive message could be considered a mood-enhancing endeavor. In such a situation, the hedonic contingency perspective predicts a relatively high level of effortful processing of the appeal. Importantly, this prediction would be at odds with that derived from the feelings-as-information framework. Positive mood, from that perspective, should always indicate safety and, consequently, a low need to expend cognitive effort. To test these competing predictions, Wegener et al. (1995) conducted a study in which affective states (happy vs. neutral), argument quality, and message framing were crossed. All participants read the same message, but it was introduced as being either one that tended to make people happy or as one that tended to make them sad. In accord with their predictions, Wegener et al. found that when the message was believed to cause sadness, happy individuals were less influenced by argument quality.
than sad individuals. However, when the message was believed to cause happiness, happy participants were more influenced by argument quality than sad individuals.

Although findings supporting the hedonic contingency model appear to contradict the feelings-as-information perspective, Schwarz and Clore (1996) state that attention to the hedonic qualities of activities may represent a rationale mood-management strategy, but one that individuals only have the luxury of engaging in when they first appraise their current environment as nonproblematic through the use of a feelings-as-information process (i.e., "The world is fine, so I think I'll stay happy by processing this message"). Consequently, they argue that the hedonic contingency model does not stand in opposition to the feelings-as-information perspective, but rather might be a secondary process that can further moderate the primary effect of positive mood.

One other process by which affective experience has been shown to influence attitude change stems from cognitive dissonance. As is well known, Festinger (1957) defined cognitive dissonance as a state in which two elements (e.g., cognitions, behaviors) are inconsistent. Such inconsistency is believed to be experienced as an aversive state by individuals and motivates actions aimed at reducing the dissonance. Decades of research have documented this phenomenon and the specific conditions under which it occurs (Cooper & Fazio, 1984) and therefore are not reviewed here. However, with regard to the link between emotion and persuasion, cognitive dissonance offers an important insight (see also Harmon-Jones, chap. 11, this volume).

Work by Zanna and Cooper (1974) clearly demonstrates that dissonance is experienced as an aversive state, much akin to tension. As Festinger (1957) notes, one way in which dissonance can be alleviated is through the changing of cognitions so that they no longer are discrepant. In support of this theory, much evidence has accumulated demonstrating that individuals' attitudes toward certain objects can change dramatically in response to dissonance manipulations that place their initial attitudes at odds with other thoughts or behaviors (for reviews, see Cooper & Fazio, 1984; Harmon-Jones, 1999). Consequently, cognitive dissonance can be understood to exert its influence on attitude change through a motivation to reduce inconsistencies that stems from the existence of an aversive affective state.

Mood-Correction Effects

In the vast majority of studies described in this chapter, the effects of emotion on attitudes can be considered to be implicit. That is, people are often not aware that their moods and emotions are coloring their judgments (e.g., that affect from a television program is influencing judgments of a product featured in an advertisement; Petty et al., 1993). Even when people explicitly consider their emotional states as relevant information, they are presumably not aware that the impact of the mood or emotional state was often produced by some stimulus irrelevant to the attitude object (e.g., good weather).

Some work, however, has examined what happens when people become aware of and wish to remove the irrelevant impact of affective states. Sometimes, when people become aware of the true source of their affect (e.g., the good weather rather than the attitude object), they discount their mood state as relevant information and thereby remove (or prevent) the mood bias (Schwarz & Clore, 1983). How do people remove or prevent this bias? According to the Flexible Correction Model (FCM; Petty & Wegener, 1993; Wegener & Petty, 1997), people's attempts at correction are guided by their theories of bias. For example, if people believe that how they feel is unduly affecting (or will unduly affect) their perceptions of a target, and if people are motivated and able to correct for these perceived biases, they can adjust assessments of the target in a direction opposite to the perceived bias in an attempt to characterize the target in an unbiased manner. If people overestimate the effect of their mood, then reverse effects can be obtained. That is, if a happy mood would have ordinarily made people more favorable toward a message than a sad mood, and people overestimate and correct for this unwanted bias, their final attitudes could be less favorable when happy than sad (DeSteno, Petty, Wegener, & Rucker, 2000; Petty, Wegener, & White, 1998).

Although corrections based on such naive theories of bias provide a potential means for lessening, removing, or reversing (if overcorrection occurs) the biasing effects of mood, a person's naive theories of bias can also introduce or augment existing mood-based biases. For example, if a person believes that happy mood makes them too positive toward an advocacy, but in fact happy mood led to a less positive view of the advocacy than a sad mood (e.g., Wegener et al., 1994; see also Martin et al., 1997), then corrections aimed at removing an undue influence of mood might actually exacerbate the effect that would have occurred without the correction. People could become aware of potential effects of mood (and might become motivated to remove those perceived effects) regardless of whether elaboration of judgment-relevant information is high or low (e.g., regardless of whether the perceived effect of mood was to bias active information processing or to influence perceptions through use as a decision rule or heuristic). Although theories of bias could guide corrections in both cases, it might be more difficult to correct effectively for mood-based biases on interpretation of many
CONCLUSION

In this chapter, we reviewed some of the ways in which affect can influence attitude change. A key point was that the influence of emotional factors, whether relevant or irrelevant to the attitude object, can occur through different primary mechanisms in different persuasion situations. That is, emotions can serve in multiple roles, and the effects of emotional factors appear to be quite diverse. Emotions can influence attitudes by peripheral mechanisms (such as classical conditioning), serve as items of issue-relevant information, bias message processing, and determine the extent of message scrutiny. Furthermore, under high elaboration conditions, mood can not only encourage mood-congruent persuasion outcomes, but also produce mood-incongruent persuasion outcomes. The latter is most evident in the literature on fear appeals. Similarly, under relatively moderate elaboration conditions, positive moods can not only encourage reductions of message processing when compared with neutral and negative moods, but can also foster increases in message processing. Thus, the flexibilities in mood-based effects on persuasion that have been presented in this chapter help to more fully explain the psychological processes underlying the various effects of mood on attitudes.

REFERENCES


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