

How the Object of Affect Guides Its Impact

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Abstract

In this article, we examine how affect influences judgment and thought, but also how thought transforms affect. The general thesis is that the nature and impact of affective reactions depends largely on their objects. We view affect as a representation of value, and its consequences as dependent on its object or what it is about. Within a review of relevant literature and a discussion of the nature of emotion, we focus on the role of the object of affect in governing both the nature of emotional reactions and the impact of affect and emotion on cognition and action. Although emotion is always about the here and now, the capacity for abstract thought means that the human here and now includes imagination as well as perception. Indeed, the hopes and fears that dominate human lives often involve things only imagined.

Keywords

affect-as-information, emotional attribution, emotional intensity, emotional objects, nature of emotion, OCC model of emotion

In 1918 a Russian Filmmaker named Lev Kuleshov performed an interesting experiment in film editing. He showed the face of a well known actor followed by the image of a bowl of soup, a child with a teddy bear, or a woman in a coffin. Although the actor's expression remained constant, audiences reportedly experienced him as hungry, happy, or sad, depending on the image that followed his face. Kuleshov concluded that the emotional impact of film on audiences depends on how it is edited, a watershed observation in the history of film.

In this article, we argue that the impact of our own emotional experiences also depends on how we do the editing. Emotions are reactions to the perceived significance of events, and they occur more or less immediately upon that perception. Thus, underlying both the power of film and of everyday emotions is the *Affective Immediacy Principle*, which is that *affective reactions are always experienced as being about whatever is in mind at the time* (Clore, Wyer, Dienes, Gasper, Gohm, & Isbell, 2001).

We view affect as a representation of value. As a result, an affective reaction both conveys information about value and confers value on the object with which it is associated. The object of affect therefore becomes the vehicle of affective influence. The power and impact of affect then depends in part on the nature of its object, including whether the object is local and specific, so that affective consequences are limited, or general and ambiguous, so that affective consequences are only loosely

constrained. In this article, we take a single-minded look at some possible implications of such a perspective on the nature and consequences of moods and emotions.

The term “affect” is frequently used but rarely defined. In our usage, it refers to any representation of evaluation, although many others restrict it to bodily, experiential, or expressive forms of evaluation. Some of the definitional difficulties can be sidestepped by treating affect as a quality rather than an entity, focusing on its adjectival rather than its noun form. Indeed, affect, like light, can be seen only in reflection. The effects of both affect and light depend on what they illuminate.

One implication of this claim concerns the nature of emotion. A common argument that arises in discussions of cognition and emotion is that since emotions appear across many species, accounts of human emotion should be built on a few basic emotions that are also found in lower animals. But we are inclined to see emotions as forms of evaluation rather than as entities. Emotions are embodied¹ representations of the evaluative aspects of situations that are centrally important for a species. Such evaluative reactions serve similar functions across species and may be served by similar circuitry, but as these evaluatively important situations increase in number and variety so should the number and variety of the emotions that represent them. We return to this point in the section on “The Nature of Emotion.”

The claim about the importance of affective objects in the dynamics of affect is elaborated both empirically and conceptually in several ways, as follows:

- *Affect and Judgment.* We cite research illustrating the principle that affective influences depend on their objects. This aspect of the affect-as-information approach is illustrated in several studies of mood and judgment involving attributional manipulations.
- *Affect and Processing.* We review research suggesting that affect influences cognitive processing by acting as a green or red light for whatever cognitions and inclinations are accessible to serve as objects of the affect.
- *Effects of Specific Emotions.* We review research suggesting that the impact of specific emotions on judgment and cognitive processing follows the same rules as do other affective conditions, but that the structure of emotions, which reflects the nature of their objects, also constrains their effects.
- *Nature of Emotion.* Next, we propose that this general treatment of affect and object also has implications for the nature of emotion. A critical distinction among different emotions, we argue, lies in the nature of their objects; that is, in the psychological situation that each represents.
- *Implications.* The pivotal role of the object of emotion can be seen in the politics of labeling, in which the ways that people characterize events and actions governs their emotional potential. We examine the curious power of unconscious, uncertain, and symbolic objects of affect. We suggest that a recognition of our larger point can be seen in the reactions to the emotional power of such abstractions as honor and patriotism that were voiced both by the Existentialism of the 1940s and the American counterculture movement of the 1960s.

Affective Influences on Judgment

We begin by looking at evidence of the role of the object in determining the impact of affect on judgment. We propose that affect influences judgment by representing the personal value of current perceptual or mental content. We suggest that the impact of emotions depends on the objects to which we attribute them, that is, on the way we edit our evaluative experience.

The original research by Schwarz and Clore (1983) makes the same point. It involved a telephone survey of life satisfaction in which calls were made either on the first warm and sunny days in spring or on subsequent cold and rainy days. The pleasant or unpleasant weather tended to lead to positive or negative moods, and these feelings were then drawn on by respondents when rating their levels of life satisfaction. But when some people were first asked about the weather, their feelings did not affect their ratings of life satisfaction. Asking about the weather did not change their feelings, but it did change what the feelings seemed to be about. As in the Russian film experiment, emotional impact in real life too depends on the apparent object of the elicited affect.

Also informative was a test of the same idea in a study of a mock trial in which accountancy students served as jurors in a corporate bankruptcy case (Kadous, 2001). Three versions of the trial transcript were prepared varying in the specificity with which it described the consequences of the bankruptcy in terms of lost savings of investors, lost jobs of workers, declining real estate values in the community, and so on. The results showed that the three versions of the transcript did produce different levels of distress in jurors, which were translated into different likelihoods of rendering a guilty verdict. However, some of the jurors were asked ahead of time to rate their level of anxiety about being a juror. Linking their distress to their role as jurors in this way eliminated its effect on their verdicts. It did not change their distress, but it did change its apparent object away from any negligence on the part of the accounting firm and hence away from a guilty verdict.

Many of the experiments we cite involve the induction of a mood state from a judgment-irrelevant source. As a result, some readers assume that the affect-as-information hypothesis is applicable only to irrelevant moods. However, the hypothesis is intended to apply to any affective reaction. Mood inductions are used simply as a ready source of affective cues, and creating conditions for misattribution helps separate the usually confounded influences of affective feelings and beliefs. In everyday life, people usually assign affect to its causes accurately. Indeed, affective reactions would be quite maladaptive if people were generally in error about their meaning.

One potential source of error arises in situations in which subjective feelings are used to judge objective truth. Recent research on how people evaluate scientific results is interesting in this regard (Stansbury, Tsai, & Munro, 2007, May). Participants read about and then evaluated scientific studies that either confirmed or disconfirmed their prior beliefs. The negative affect resulting from belief disconfirmation led participants to find fault with the disconfirming study. However, judges who were given an opportunity to misattribute their negative feelings to an irrelevant source (e.g., having drunk caffeine) did not find fault with the study, despite having their beliefs disconfirmed. The research shows how subjective experience can play a role in beliefs about objective truth (Clore, 1992; Schwarz, 1998), and how the impact of affect depends on the object to which it is attributed.

In these judgment studies, people's attention was focused on whatever stimulus was to be judged. In contrast, when affect influences task performance, people have a different focus so that possible cognitive and behavioral responses become the objects of affect, as we see next.

Affective Influences on Cognitive Processing

Affect regulates thinking and information processing when it is experienced as evaluative feedback about the value of current thoughts and inclinations. More specifically, according to the Affective Processing Principle, positive affect provides a "go" sign and negative affect a "stop" sign for whatever information

processing tendencies are currently most accessible (Clore et al., 2001).

Explanations of affective influences on cognition generally assume that positive and negative affect are linked to particular cognitive styles. For example, positive affect has been associated with heuristic processing (Schwarz & Clore, 2007), a global focus (Gasper & Clore, 2002), relational processing (Storbeck & Clore, 2005), widening attention (Derryberry & Tucker, 1994), a “broaden and build” orientation (Fredrickson, 2001), substantive processing (Forgas, 2001), and assimilation (Fiedler, 2001), among other possibilities.

These proposals represent similar conclusions from similar data, but in this article we entertain the hypothesis that affective influences on processing do not necessarily reflect dedicated links between positive and negative affect and particular attentional or processing styles. Instead, or perhaps in addition, affect may simply confer value on whatever cognitions and inclinations are most accessible at the time (Clore & Huntsinger, 2007). Relevant research focuses on how mood affects some of the textbook phenomena of cognitive psychology. Such phenomena include semantic priming, schema-guided memory, and other tasks designed to elicit relational processing in which incoming information is related to existing knowledge and beliefs. Positive moods tend to maintain or enhance such relational processing. But when people are in sad moods, many of these cognitive phenomena disappear or appear in diminished form. It is unclear, however, whether positive affect specifically triggers relational processing or positive affect simply says “yes” to the relational processing that happens to be dominant in such tasks.

In the following, we ask how well this hypothesis accounts for the effect of mood on cognitive processing. It should be noted, however, that Petty and colleagues, among others, have shown that affect can play more than one role even in a single experiment (e.g., Hirt, Levine, McDonald, Melton, & Martin, 1997; Wegener & Petty, 2001). Hence, the question is not whether the proposed process is the sole mechanism governing affective influences on cognition, but whether it is one such process, and if so, which affective phenomena show its effects.

Varying Thought Accessibility

We are proposing that affective feedback operates on whatever is in mind at the time. Semantic priming (Neely, 1991) is a basic phenomenon in cognitive and social psychology in which one observes faster responses to a target word (e.g., nurse) when it is preceded by a semantically related word (e.g., doctor) than by an unrelated word (e.g., cat). A related phenomenon, affective priming (Fazio, 2001), involves faster responses to a target word (e.g., death) when it is preceded by an affectively congruent word (e.g., disease) than by an incongruent word (e.g., kitten). Such findings are generally explained by spreading activation models of memory. Once a concept or evaluative reaction is primed, activation is thought to spread along a network to semantically and evaluatively-linked concepts, thereby facilitating responses to these concepts.

According to the Affective Processing Principle, affect regulates this tendency. Specifically, positive affect should empower, and negative affect should dampen, relational processing, including the spread of activation among associated concepts. As a consequence, the various priming phenomena commonly observed in cognitive and social psychology should be more common among individuals in positive moods than negative moods. Consistent with this idea, several experiments have found that people in positive moods were more likely than those in negative moods to exhibit semantic, evaluative, and categorical priming (Storbeck & Clore, in press). In fact, sad moods seem to eliminate priming altogether.

This effect is evident not only in the priming of words, but also in the priming of social categories. It has been shown that priming the category “elderly” can lead people to express more conservative attitudes (Kawakami, Dovidio, & Dijksterhuis, 2003) and to walk more slowly (Bargh, Chaiken, Raymond, & Hymes, 1996). If we are correct that affect confers positive or negative value on activated cognitions, then people should be more likely to show such effects in happy moods than in sad moods. For example, in several experiments (Huntsinger, Ashton-James, & Clore, 2007), the category “elderly” or “young” was primed (e.g., by exposing participants unconsciously to pictures of old and young faces). The results showed that positive moods led to more conservative social attitudes and slower walking after the category “elderly” was primed compared to when the category “young” was primed. In contrast, when sad mood conferred negative value on such inclinations, both attitudes and walking speed showed the opposite pattern of more liberal attitudes and faster walking after exposure to elderly faces. Thus, positive moods validated and negative moods invalidated the relevance of whatever social categories had been primed.

These same kinds of effects are also obtained when implicit rather than explicit measures are used (Huntsinger, Sinclair, & Clore, 2007). For example, people in positive moods were more likely than those in negative moods to express implicit prejudice toward African-Americans when measured on an Implicit Association Test (IAT; Greenwald, McGhee, & Schwarz, 1998). In addition, women in happy moods were more likely than those in sad moods to display the female stereotype of preferring arts over math when assessed on the IAT. Again, positive affect appears to promote, and negative affect to inhibit, dominant responses.

Follow-up analyses on these data used a process-dissociation procedure (Jacoby, 1991; Payne, 2005). It revealed that rather than promoting controlled, data-driven processing, as is often assumed (e.g., Schwarz & Clore, 2007), sad moods acted to dampen the otherwise automatic activation of implicit attitudes. Thus, positive moods appeared to maintain and negative moods to inhibit the activation of stereotypic cognitions about activated social categories.

We are arguing that affect can regulate the apparent value of cognitions and thoughts to which it is associated. This hypothesis is also supported by research on self-validation processes

(e.g., Briñol, Petty, & Barden, 2007). In this research, participants were exposed to persuasive appeals consisting of either strong arguments or weak arguments. Participants then wrote down their thoughts, which tended to be positive for strong arguments and negative for weak arguments. When positive moods were induced, they validated such thoughts so that participants were more persuaded by strong than by weak arguments. However, when negative moods were induced, they essentially invalidated such thoughts, reversing these effects. Invalidating the negative thoughts in response to weak arguments made the weak arguments persuasive, whereas invalidating the positive thoughts in response to strong arguments made them less persuasive. These findings stand in contrast to past research, which typically found that people in positive moods were equally persuaded by strong and weak persuasive appeals, whereas those in negative moods were more persuaded by strong than weak appeals (Schwarz, Bless, & Bohner, 1991). However, this apparent contradiction nicely illustrates the larger point, since it can be resolved tidily by noting the difference in the object of affect in the two groups of studies. In past studies, mood was always induced prior to receipt of a persuasive appeal, so that it served as evaluative information about whatever was activated at the time, including processing strategies, prior attitudes toward the topic, and so forth (see Briñol, Petty, & Barden, 2007, for a review). In contrast, in the research by Briñol, Petty, & Barden (2007), affect was introduced after participants had written down thoughts about the persuasive messages. Thus the object of affect became the message-relevant thoughts, rather than the messages. We again see that the impact of affect depends on the object to which the affect confers value.

Affect not only provides evaluative information about activated thoughts, it can also signal the value of feelings about these thoughts (meta-cognitive experiences), including feelings of ease or difficulty associated with generating thoughts. In research on the ease-of-retrieval heuristic (Schwarz et al., 1991), participants are typically asked to recall few versus many instances of behaviors emblematic of a certain characteristic, such as assertiveness. Consistent with the availability heuristic, people believe that they are more assertive after recalling few rather than many instances of past assertive behavior, because they came to mind more readily. In a series of studies, Ruder and Bless (2003) found that people in positive moods were more likely than those in negative moods to rely on such feelings of ease or difficulty when making judgments.

Similar informational influences have also been shown for affectively relevant bodily movements. For example, nodding one's head while reading a persuasive appeal, also appears to confer value on accessible thoughts, whereas head shaking casts doubt on them (Briñol & Petty, 2003). Inducing feelings of power or powerlessness can influence the use of accessible cognitions in the same way. Feeling powerful has been found to influence persuasion very much like positive affect does (Briñol, Petty, Valle, Rucker & Becena, 2007). And the experience of power also encourages reliance on ease-of-retrieval experiences (Guinote, 2007).

Varying Stereotype Accessibility

Positive moods have repeatedly been found to lead to reliance on stereotypes (see Bodenhausen & Moreno, 2000, for a review). Early explanations assumed that positive moods reduce cognitive capacity (e.g., Mackie & Worth, 1989) or processing motivation (e.g., Schwarz, 1990). Later explanations suggested that positive moods signal a benign environment, which was believed to permit reliance on such general-knowledge-structures (Bless, 2001; Bless & Schwarz, 1999).

For most people, however, stereotypes readily come to mind when they encounter members of stereotyped groups (Devine, 1989; see Bodenhausen & Macrae, 1998, for a review). Therefore inducing positive mood and related operations may lead to stereotyping simply because they affirm whatever thoughts are accessible. If so, then people whose dominant reactions to target groups are egalitarian rather than stereotyped should not show the same tendency for happy moods to lead to stereotyping. Research testing this hypothesis used a procedure devised by Moskowitz, Gollwitzer, Wasel, and Schaal (1999) for identifying people with "chronic egalitarian" goals. Consistent with this hypothesis, positive mood tended to decrease rather than increase stereotyping among individuals with chronic egalitarian goals (Huntsinger, Sinclair, Dunn, & Clore, 2007). Another approach to the same issue has focused on making counter-stereotypic thoughts accessible in the laboratory. Following prior research (see Dasgupta & Asgari, 2004), we exposed participants to pictures of counter-stereotypic individuals (strong female-leaders) or to socially irrelevant pictures (flowers). Afterward, they completed a measure of implicit gender stereotyping. Consistent with the affective processing principle, after exposure to strong female-leaders, positive mood led to less implicit gender stereotyping than after exposure to flowers, whereas negative mood led to the opposite pattern (Huntsinger et al., 2007). Negative mood invalidated the counter-stereotypic thoughts that had been made accessible, leading to greater implicit gender stereotyping. Thus, whether positive affect increases and negative affect decreases stereotyping depends on the nature of the thoughts and inclinations that become the object of the affect.

Varying Goal Accessibility

The influence of affect on goal pursuit also depends on its object. If affect is experienced as the value of a given goal, then it shapes goal adoption. In this case, positive affect signals that accessible goals are valuable, encouraging their pursuit, and negative affect signals that they are not valuable, discouraging their pursuit. Consistent with this idea, Fishbach and Labroo (2007) found that happy people worked harder on a task than sad people if a self-improvement goal was accessible. In contrast, when a mood-maintenance goal was made accessible, happy people worked less on a task than sad people. These results contradict assumptions that mood is linked to any particular type of goal or self-regulatory strategy.

Similar results were reported by Martin and colleagues, who proposed a view similar to the one we are espousing (Martin, Achee, Ward, & Wyer, 1993). They showed that positive affect is essentially a “yes” answer to an implicit question, so that affective influences depend on the question to which affect is an answer. They found that people in positive moods persisted longer on a task than those in negative moods when the implicit question was, “Am I still enjoying the task?” But when the implicit question was, “Have I done enough?” then the “no” answer provided by negative affect led to greater persistence, whereas the “yes” answer provided by positive affect indicated that they had done enough and led participants to stop sooner.

A related pattern emerges for interpersonal goals (Huntsinger, 2007, Exp’s 5–6). When people have a goal to affiliate with others, they tend to adopt their partners’ attitudes, a phenomenon called social tuning. But when people have the goal to socially distance themselves from others, they tend to contrast their attitudes away from a partner’s attitudes, a phenomenon called anti-tuning (see Sinclair & Huntsinger, 2006, for a review). Mirroring the results of Fishbach and Labroo, affect was found to signal the value of naturally occurring (Exp. 5) or primed (Exp. 6) goals to affiliate with or socially distance oneself from others. Specifically, for people in happy moods, a goal to affiliate with or to gain social distance from their partners determined whether they aligned their attitudes with those of the partner or not. But in sad moods, such goals did not dictate whether they aligned or contrasted their attitudes with those of the partner. Again, affect appears to add or subtract value from activated goals.

In addition to its role in moderating the pursuit of social goals, affect can also influence the pursuit of biological goals. For example, research has found that exposure to unconscious smiling faces can cause people who are thirsty to drink more of a novel beverage than those without such a goal (Winkelman & Berridge, 2004). Similar effects have been observed when primed goals were associated with positive or negative affective concepts. For example, when the activation of a goal co-occurs with positive words as opposed to neutral or negative words, individuals expressed a greater desire to attain the goal and spent less time on a filler task that would interfere with goal attainment (Aarts, Custers, & Holland, 2007; Custers & Aarts, 2005).

We mentioned earlier that feeling powerful confers value on accessible thoughts. Such effects also influence the pursuit of accessible goals. People made to feel powerful were found to be more likely to pursue accessible or subtly primed goals than those feeling less powerful (Galinsky, Gruenfeld, & Magee, 2003; Guinote, 2007).

But one can obtain the opposite results if the affect appears not as information about the value of a goal, but as information about one’s progress toward the goal. When the object of affect is one’s progress, then positive affect results in reduced effort, because the affect indicates that one is doing better than necessary. By contrast, in that situation, negative affect leads to increased

effort (Eyal, Fishbach, & Labroo, 2007). Thus, predicting the impact of affect on behavior also depends critically on knowing the object of the affect and therefore what information it conveys.

Varying Global–Local Focus Accessibility

One of the better candidates for a fixed influence of affect on cognition lies in the relationship between mood and global versus local focus. Happy moods, as compared to sad moods, are thought to broaden the scope of attention (Derryberry & Tucker, 1994; Fredrickson & Branigan, 2005) and cognition (Isen, 2000) and to induce a global focus or processing style (Gasper, 2004; Gasper & Clore, 2002). A variety of research findings support that conclusion.

For example, on a global–local perception task (Kimchi & Palmer, 1982), individuals in happy moods have been found to match geometric figures when they are similar in overall shape, whereas those in sad moods match figures sharing local elements (Gasper & Clore, 2002). Similar findings have been obtained when trait level positive affect was examined (Derryberry & Reed, 1998), and when people think about themselves in a position of power (Smith & Trope, 2006).

Does positive affect lead directly to global as opposed to local attention? Certainly there are a number of findings that seem to suggest that. In addition to the perception data, there are also a number of cognitive processing studies in which positive affect seems to promote global or relational as opposed to local or item-specific processing (e.g., Bless et al., 1996; Storbeck & Clore, 2005). The alternative possibility considered here, however, is that positive affect privileges dominant responses and that global attention and relational processing simply happen to be dominant orientations to incoming information (Bruner, 1957). Certainly many cognitive tasks do pull for relational processing, and perceptual tasks do often show a “global superiority effect.” Thus, mood may have some of its effects by communicating about the apparent value of such orientations. If this were the case, people in positive moods should process incoming information in either a global or a local fashion, depending on which is made most accessible. In contrast, people in negative moods should remain unaffected by which is the more accessible.

Two studies tested this hypothesis, using two different ways of manipulating the accessibility of global or local focus (Huntsinger, Clore, & Bar-Anon, 2007). In both, whether happy participants showed a global or a local focus depended on which was primed. As expected, the focus in sad moods was unaffected by priming. These results reveal that the relation between mood and global–local focus can be changed by making a local focus momentarily more accessible than the usual global focus. The aforementioned link between the experience of power and a global focus (e.g., Smith & Trope, 2006) can also be changed by making a local focus more accessible than a global focus (Guinote, 2007).

Cultural Differences in Accessibility

Earlier we noted that we had tested the processing principle in the stereotype domain by finding a group of people for whom the most accessible response to members of stereotyped groups was egalitarian rather than stereotypic. As predicted, we found that the relationship between mood and stereotyping depended on which responses were the most chronically accessible, stereotypic, or egalitarian responses. The same strategy was recently employed to assess the principle in the domain of reasoning. In this case, the effect of mood on reasoning styles in two different cultures was examined.

Research on culture and cognition has shown that East Asians tend to reason more holistically, and that European-Americans reason more analytically (Nisbett, 2003; Nisbett, Peng, Choi, & Norenzayan, 2001). To determine whether positive mood would promote more holistic thinking in everyone or would empower whatever style was culturally dominant, several experiments were conducted in Korea and in the USA (Koo, Clore, Kim, & Choi, 2008, Feb). Participants read about a murder and then indicated which of a large number of factors might have been causally relevant. Consistent with the processing principle, in comparison to sad moods, happy moods promoted whichever reasoning style was dominant in the culture in which the experiment was conducted. Thus, reasoning holistically, Koreans tended to see more factors as causally relevant when they were happy than when they were sad, whereas Americans, reasoning analytically, tended to see fewer factors as causally relevant when happy than sad. Again, rather than a fixed relationship between affect and cognitive processing, positive affect appeared to act as a green light and negative affect as a red light for culturally dominant reasoning styles.

In summary, according to the Affective Processing Principle, the influence of affect can vary widely depending on its specific object. Thus, in the same situation, the same affect might be experienced as information about one's thoughts, about one's problem-solving approach, or about currently accessible or pursued goals. When thoughts were the object of affect, positive and negative affect were found to maintain or inhibit people's naturally accessible prejudices and stereotypes, as well as stereotypes made momentarily accessible through priming procedures. Goals can also be objects of affect. Research found that positive affect encourages and negative affect discourages the pursuit of goals that were either naturally accessible or that are made accessible through priming procedures. Finally, when one's orientation to a task is the object of affect, then positive and negative affect should confer value on that orientation or processing style. Thus, contrary to perspectives that posit a dedicated link between mood and processing style, people in positive moods may process information in a global or a local fashion, depending on their relative accessibility, whereas those in negative moods should not and may even do the opposite.

Emotional Influences on Judgment and Processing

We propose that the impact of specific emotions reflects the cognitive and situational constraints that differentiate one emotion from another. We elaborate this proposal in terms of one particular account of emotional appraisal.

The OCC Account of Emotions

One approach to the specific emotions is a model proposed by Ortony, Clore, and Collins (1988), generally referred to as the "OCC model."² It sees emotions as evaluative states, which it categorizes into three broad groups, reflecting three kinds of targets for emotion: *outcomes*, *actions*, and *objects*, each of which implicates a different psychological source of evaluation: *goals*, *standards*, and *tastes*. Each of these yields a qualitatively different affective reaction: *pleased–displeased*, *approve–disapprove*, and *like–dislike*.

Emotions such as joy, sadness, hope, fear, disappointment, relief, and so on are instances of *being pleased or displeased about the desirable or undesirable outcomes of events evaluated with respect to one's goals*. Emotions such as pride, shame, admiration, and reproach are instances of *approving or disapproving of praiseworthy or blameworthy actions evaluated on the basis of applicable standards*. And emotions such as love, hate, and disgust are reactions of *liking or disliking in response to appealing or unappealing attributes of objects evaluated on the basis of one's tastes/attitudes*.

Specific emotions are instances of one or more of these affective reactions constrained by such cognitive or perceptual factors as whether they involve self (e.g., pride, shame) or other (e.g., admiration, reproach), and so on. The OCC account specifies 22 emotion types covering a large number of specific variations or emotion tokens. It proposes sets of the eliciting conditions for each emotion type along with factors that influence the intensity of each.

Research on Specific Emotions

How do particular emotions influence judgment and processing? The rules adduced from research on moods generally apply also to emotions. However, since moods are relatively undifferentiated, their affective influences were mainly constrained by the situations in which they occurred. By contrast, the affect in emotion is already situated, because emotions represent particular kinds of situations. For example, in the OCC account described above, fear and sadness are not simply negative affective reactions, they are negative affective reactions that signify the undesirable outcomes of events. Disgust is also a negative affective reaction, but it implies some kind of distasteful object, rather than some kind of undesirable outcome. Moreover, a factor such as "likelihood of occurrence," which makes outcome emotions such as fear, more or less intense, has no effect on an object-focused emotion such as disgust. Thus, the impact of each emotion is already

constrained by the kind of situation it implies. Accordingly, we arrange our brief examination of the effects of specific emotions by the kinds of situations they signify.

Object-focused Emotions – Disgust. Disgust involves the affective reaction of dislike of the unappealing attributes of objects based on taste (Ortony et al., 1988). Distasteful things may include anything from foul odors to unacceptable ideas (Rozin, Haidt, & McCauley, 2000). Objects associated with feelings of disgust should decrease in value and should be avoided or rejected. Disgust has been examined in an experiment on a phenomenon known as the “endowment effect,” which refers to people’s tendency to set higher selling prices than buying prices for objects they own (Lerner, Small, & Loewenstein, 2004). Consistent with expectations, disgust disrupted the usually robust endowment effect by decreasing the selling price for a small item (a set of highlighter pens) that had been given to participants.

Whereas disgust is experienced as information about objects, feelings of sadness are an outcome-focused emotion. We generally find that sad affect undermines people’s confidence in their inclinations, often dampening or even reversing the most accessible responses on cognitive (Storbeck & Clore, 2005) and stereotyping tasks (e.g., Isbell, 2004). Consistent with that logic, sadness made participants reverse the usual responses that constitute the endowment effect, lowering the selling price and raising the buying price. Thus, the same phenomenon, the endowment effect, was influenced differently by different negative emotions, the *object-based* emotion signaling that the object was unappealing, and the *outcome-based* emotion signaling that dominant responses would lead to an undesirable outcomes.

More dramatic examples of the effects of these emotions can be seen in studies morality (Schnall, Haidt, Clore, & Jordan, in press; see also, Wheatley & Haidt, 2005). In several experiments, participants were asked to judge morally ambiguous actions as they were experiencing extraneous feelings of disgust. Disgust was induced by an unpleasant odor (fart spray), a disgusting room, a remembered disgusting experience, or a disgusting film. In each case, disgust increased the severity of moral judgments in response to vignettes depicting morally ambiguous actions. The effects were often specific to people scoring high on a scale assessing Private Body Consciousness, suggesting that actual embodied disgust was involved rather than simply primed concepts about disgust. Importantly, the same effects were not found when sadness was induced. The results were consistent with the idea that disgust signifies something distasteful, which might include immoral actions. Sadness, however, is about the undesirable outcomes of events, and therefore seems less informative about whether an action is immoral. Thus, in these examples, instead of the broad brush effects of general moods, specific emotions had more targeted influences that flowed from their more specific information value. This characteristic is also evident in studies that induce fear and sadness, as we see next.

Outcome-focused Emotions—Fear and Anxiety. Fear and anxiety involve displeasure about the prospect of an undesirable outcome of events, and are accompanied by feelings of threat. As such, the experience of fear and anxiety are linked to

increased judgments of risk (e.g., Constan & Mathews, 1993; Gasper & Clore, 1998), a tendency to make risk-averse decisions, and a more pessimistic outlook on future events (Lerner & Keltner, 2000). Reflecting affect-as-information logic, Slovic, Finucane, Peters, and MacGregor (2002) proposes that when the thing being judged appears to make one anxious, the anxiety is taken to reflect the risk of undesirable outcomes. As discussed above, fear increased the perceived risk of terrorism (Lerner, Gonzalez, Small, & Fischhoff, 2003) and anxiety increased the perceived risk associated with the Iraq war and decreased support for the war (Huddy, Feldman, & Cassese, 2007). Anxiety has also been found to be associated with consumer preferences that reflect an emphasis on the safety of products (Raghunathan, Pham, & Corfman, 2006).

Fear and anxiety shape not only the judgments that have no right or wrong answer, but also perceptual judgments about the objective physical world. One of the more dramatic demonstrations of emotional effects is the observation that fear can change perceptions of height. Participants in one experiment were made to feel mild fear by having them stand on a skateboard at the top of a steep hill (Stefanucci, Proffitt, Clore, & Parekh, in press). Compared to individuals standing in the same spot on a stable, wooden platform, the hill was perceived to be significantly steeper on the skateboard.

Mild fear has also been found to inflate perceptions of the distance from a balcony on which participants stood to the ground below (Stefanucci & Proffitt, 2008). As a consequence, corresponding changes occurred in the estimated size of an object on the ground when viewed from the balcony. That result reflects the operation of the size-distance illusion in which the visual system compensates for knowledge that something is farther away with increases in apparent size. Thus, as a result of seeing the balcony as higher, people experiencing mild fear overestimated the size of a circular disk on the ground below.

This research on the role of fear in perception of incline and height when estimates are made from above were follow-up studies from prior research examining how sadness can alter perceptions of slant when viewed from below, as we see next.

Outcome-focused Emotions – Sadness. In the OCC account (Ortony et al., 1988), sadness is one of a number of emotions reflecting displeasure over an undesirable outcome of events relevant to one’s goals. Emotions in this family may indicate general loss, resource depletion, or goal thwarting (e.g., distressed, depressed, unhappy), or more specific reactions relevant to a particular goal (e.g., grief-stricken, homesick, lonely).

Proffitt (2006) has proposed a resource account of variations in perceptions of the slant of hills. He and his colleagues find that the elderly, individuals who have exercised to exhaustion, and students wearing a heavy backpack all see the incline of a hill as especially steep when viewed from the bottom. The idea is that the perceptual system assesses the slant of a hill against the resources available for climbing it.

Since the undesirable outcome signified by sadness is specifically concerned with loss of resources, an experiment was conducted to find out if it too would affect perceptions of slant (Riener, Stefanucci, Proffitt, & Clore, 2003, June).

Students listened to sad music as they estimated the incline of a hill. Compared to happy and neutral states, sadness led to greater overestimations of slant. Thus, feelings of sadness, a representation of the outcome of resource loss, influenced judgments of the steepness of a hill, the climbing of which would be resource dependent. Thus, the emotion influenced the judgment, we argue, because both concerned the likelihood of undesirable outcomes.

Hybrid Emotions – Anger. The OCC model (Ortony et al., 1988) described above specifies three possible points of focus, serving as the basis for three different affective reactions—being pleased, approving, and liking—forming the bases of the various common emotions. The points of focus include the desirable–undesirable outcomes of events, the praise–blameworthy actions of agents, and the appealing–unappealing attributes of objects. Anger is a relatively complex emotion in that it involves a joint focus on outcomes and actions. Specifically, it involves both displeasure at undesirable outcomes and disapproval of the blameworthy actions that caused them. Although anger is a negative emotion, the information it conveys about one’s own perspective is positive, and it is therefore often accompanied by feelings of confidence in one’s point of view (Lerner & Tiedens, 2006) and approach motivation (Harmon-Jones & Allen, 1998). Thus, in studies of stereotyping, anger has been found to show increased reliance on stereotypes and implicit biases similar to that found for happy mood. For example, in a jury decision-making situation, angry individuals’ judgments of guilt were more influenced by accessible stereotypes than were sad individuals’ judgments (Bodenhausen, Shepard, & Kramer, 1994).

These results are sometimes seen as evidence against an affective interpretation of these results, since anger and happiness have the opposite valence but similar effects. However, in our general view, the influence of affect is not due to the affect itself, but to the information it carries. The psychological situation represented in anger is one in which the angry person holds the moral high ground. That is, the information about his or her own position is positive, rather than negative, which should privilege accessible thoughts and inclinations, including stereotypic ones. Angry individuals have also been shown to express greater intergroup bias than individuals in sad or neutral states when reactions were assessed using implicit measures (DeSteno, Dasgupta, Bartlett, & Caidric, 2004). This reaction nicely illustrates both the positive value on one’s own position and the negative value on the position of others, which typifies anger.

Consistent with the assumption that anger involves a focus on blameworthy actions, research shows that anger can increase judgments of blame, and, consistent with our assumption that fear involves a focus on the prospect of undesirable outcomes, fear tends to increase judgment of risk (Gallagher & Clore, 1985; Keltner, Ellsworth, & Edwards, 1993). In other research, such effects were found in a study of emotional reactions to terrorism. Fear after the 9/11 attacks was associated with greater perceived risk of terrorism and intentions to prepare for a potential attack, whereas anger was associated with support for the Iraq war (Lerner et al., 2004). Also consistent with the focus on blameworthy action in anger, angry people were found to

engage more in attributional thought about the 9/11 attacks than did sad people (Small, Lerner, & Fischhoff, 2006). The research on anger is nicely consistent with the idea, which we elaborate in the next section, that emotions are affective states whose objects are kinds of psychologically significant situations.

Other Accounts

We have emphasized that affect provides information about one’s unconscious appraisals of objects, thoughts, inclinations, and decision alternatives. But in addition to serving as feedback about the value of one’s current goals and responses, affect can also serve as a goal itself. Since it is more pleasant to be happy than to be sad, behavior is often motivated by a goal to achieve or maintain a happy state (e.g., Tice, Bratslavsky, & Baumeister, 2001; Wegener, Petty, & Smith, 1995; Wyer, Clore, & Isbell, 1999). In that circumstance, when positive affect serves as feedback that the goal has been reached or that progress is especially good, then effort may slacken along with any motivation for risk-taking. But when the object of sad affect is the fact that progress toward the enjoyment goal is slow, then sad affect may result in a redoubling of effort (Eyal, Fishbach, & Labroo, 2007) and an increase in the appeal of high reward options, even if they carry high risk (Raghunathan & Pham, 1999).

Still another consequence of experiencing sad affect in the context of hedonic goals is for the value of the positive affect one seeks to increase. If sad affect signals the scarcity of positive affect, the value of achieving it may increase, since diminishing supplies of a good tend to increase value. Thus, for example, sadness has been found to increase preferences for consumer products that are comforting and rewarding (Raghunathan et al., 2006).

We have focused on an affect-as-information account of various phenomena, but there are of course alternatives. It is not our goal to review those here, but for interesting accounts of a particularly useful approach in which affect is interpreted as a resource, see Tice et al. (2001) and Trope, Igou, and Burke (2006).

Some accounts of the effects of specific emotions that are close to the one given here include the appraisal-tendency-framework (e.g., Lerner & Keltner, 2000) and the motivation priming account (Raghunathan & Pham, 1999). The appraisal-tendency-framework is consistent with the current view in proposing that, because specific appraisals of situations are represented in emotions, the experience of emotions involves activation of those specific appraisal tendencies. According to Lerner and Keltner (2000), these can carry-over to guide judgment and processing in unrelated tasks or situations. They suggest that emotions prime particular appraisal tendencies, which then influence judgment and processing, although they acknowledge that the information conveyed by emotion might also drive their effects (Han, Lerner, & Keltner, 2007). There is a similar account that is somewhat more cognitive than our own.

The motivation priming explanation account is also similar to the affect-as-information approach. However, instead of judgments being guided by the “How do I feel about it?” heuristic (Schwarz & Clore, 1988), Raghunathan and Pham (1999)

suggest that emotional effects might be understood in terms of the role of different emotional states in altering answers to the question, “What would I feel better about?” Thus, they suggested that anxiety might prime an implicit goal of uncertainty reduction, and sadness an implicit goal of reward replacement. However, more recently, Raghunathan et al. (2006) also provide attribution-based evidence of affect-as-information processes in these effects.

We have focused on the objects of emotions as causes of their effects. One could also explain emotional effects on the basis of the goals or motives of particular emotions. However, we suggest that such goals and motives too are reflections of the psychological situation represented in the emotion.

Summary. We have reviewed a sample of research examining the role of specific emotions in judgment and information processing. We suggested that affect-as-information about objects operates similarly in the case of moods and emotions, except that the situational structure that differentiates one emotion from another also constrains the range of objects on which the emotion is likely to have an impact.

We turn next to a more conceptual point about specific emotions. Our general thesis has been that the nature and impact of affective states depends on their objects. In the next section we extend that idea to the nature of emotions themselves.

The Nature of Emotion

In this section, we propose that variety among emotions reflects variety among the psychologically significant situations of which emotions are multi-faceted representations.

The object of affect is pivotal emotion in two ways. One way is evident in a recent neurally-inspired model of the process of emotion elicitation (Cunningham & Zelazo, 2007). It proposes that as emotions emerge from lower level affective reactions, they are shaped by a progressive clarification of the affective object. A second way reflects recent reconsiderations of the nature of emotion (e.g., Barrett, 2006). Consistent with such a view, we propose that the main difference among specific emotions is the psychological situations they represent.

Appraisal Processes

The 1980s were a decade in which several *structural* theories of appraisal were proposed. By contrast, the 2000s appear to be a decade in which new *process* theories of appraisal are being proposed (for a review, see Clore & Ortony, in press). One of these accounts (Cunningham & Zelazo, 2007) handles some traditionally difficult issues especially easily. According to this model, the process of emotion elicitation is one in which low level affective reactions, which may be triggered by quite minimal stimuli, initiate an iterative sequence of evaluative processes. During this “evaluative cycle,” stimuli are interpreted and reinterpreted within increasingly elaborated representations of their context. The amygdala thus processes the same stimulus again and again in a

series of recursive feedback loops involving progressively more information from higher levels of processing. Included in these may be a reprocessing of one’s own visceral reactions. When modified by this and other information, initially minimal, unconscious affective reactions become elaborated into full-blown, conscious, emotional states. The key point for our purpose is that specific emotions ultimately depend on how situations mold affective reactions. Affect becomes emotion as perceptual and cognitive interpretations of the situation shape and reshape initial excitatory impulses.

Emotion Structure

In addition to the process-based point that emotion emerges as affect becomes situated, a second, related claim is that the structure of specific emotions revolves around those situations. Thus, emotions can be differentiated from one another in terms of the psychologically significant situations that they represent.

Traditionally, emotional specificity was assumed to reflect distinctive patterns in the body and the brain, which in turn influenced experience, expression, and cognition. In other words, explanations for emotional phenomena were usually sought in the nature of the emotions themselves. From that perspective, investigators searched for emotional entities, envisioning a periodic table of basic emotions. But little agreement emerged about the number of basic emotions. Early suggestions included two (Weiner & Graham, 1984), three (Watson, 1930), four (Gray, 1982), five (Oatley & Johnson-Laird, 1987), six (Ekman, Friesen & Ellsworth, 1982), seven (McDougall, 1926), eight (Plutchik, 1980), nine (Tomkins, 1984), 10 (Izard, 1971), or perhaps 11 (Arnold, 1960).

An alternative view that we find useful sees the critical distinction among different emotions in the psychological situation that each represents (e.g., Clore & Ortony, in press). The idea is that there are a number of recurring kinds of situations that all creatures encounter; including opportunities and obstacles, attachment, threat, and loss. Social animals may additionally encounter situations of cooperation, competition, and cheating, and the important situations become further elaborated for species characterized by greater social or cognitive complexity. In this view, if there are “discrete” or “basic” emotions, such discreteness or basicness lie in the situations they signify, and whatever emotional response patterns emerge reflect the constraints imposed by that kind of situation. Emotions, then, are seen as situated affective reactions that are given power by the implications of the situation for the goals, standards, and tastes of the person confronting them (Ortony et al., 1988). From this orientation, emotions are cognitively and perceptually constrained affective reactions (Clore & Ortony, in press). The power and impact of any particular emotional moment would lie, then, in what the emotional reaction seems to be about. What specifically has the emotion marked as good or bad, what is at stake, and what new goals does it entail?

We are generally sympathetic to the view outlined recently by Barrett (e.g., 2006). After reviewing the literature on emotion

and facial expression, brain activation, feelings, and behavior, she concluded that existing data do not support the traditional view of emotions as distinct modules that are tightly organized in terms of facial expressions, physiology, brain patterns, and behavior. She suggested instead that distinctive appraisal patterns may ultimately be the only reliable way to differentiate emotions. For example, shame is a name for a state reflecting a situation in which one has engaged in blameworthy action, and fear denotes a situation involving the prospect of undesirable outcomes (Ortony et al., 1988). Such characterizations differentiate shame from fear even when there is no evidence of lowered gaze, in the case of shame, or of escape behavior, in the case of fear. In this view, emotions differ from each other because they have different kinds of objects or signify different kinds of situations.

If so, then the uniqueness of each emotion is in the psychological situation it represents. The neural, behavioral, expressive, and experiential aspects are then multiple representations of that psychological situation. They should show some level of distinctiveness, of course, because they are constrained by similarly distinctive aspects of the psychological situation that defines them. But perhaps emotions are not distinct entities that commandeer attentional and bodily resources; rather, emotions reside in the fact that attentional, bodily, and other resources are all occupied with the same critical aspects of a particular psychological situation. Similarly, it may not be the case that an emotion exists and is subsequently expressed in the face, posture, or tone of voice. Rather these representations of affectively significant perceptions *are* the emotion (Russell, 2003).

That these assertions seem somewhat strange suggests that all of us are still stuck to one degree or another in the view of emotion that James (1884) so famously criticized. When he said we do not run because we are afraid, but we are afraid because we run, he was not suggesting that runners tend to become anxious or that sitting-still might be a therapy for anxiety, rather he was saying that in the right kind of situation, running is a component of fear. When we represent threat in our wide eyes, in our tense feelings, our alarmed thoughts, our activated amygdale, and our squeaky voice, we are afraid. But fear does not cause these things; it *is* these things.

However, we earlier asserted that emotions are not defined by unique bodily, experiential, or other manifestations. Instead, we said that the distinctiveness of fear lies in the psychological situation of threat to which these are reactions. Presumably there is less stereotypy in the manifestations of threat or other psychological situations than assumed in the traditional view simply because there are many different kinds of threatening situations. Thus, no one pattern of coping fits all instances of fear.

Related Theories. The emphasis on the role of the situation in emotion is reminiscent of Schachter and Singer's (1962) theory of emotion, which assumed that specific emotions were states of physiological arousal differentiated from each other only when attributed to different causes. Their theory foundered on the assumption that autonomic arousal was the only bodily component of emotion. But the notion that emotions are

constructions, involving both bodily and cognitive aspects, is still a viable account.

Sabini and Silver (2005) propose that emotions are interpretations of a small number of bodily disturbances so that emotional variety reflects variety among people's perceptions of their environment. Thus, emotions depend on their object. In the words of Sabini and Silver (2005, p. 3):

In our view, as in Schachter and Singer's (1962), emotions are not self-announcing. The internal state one is in while having an emotional experience is not the only information one needs to describe one's own, or another's, emotions accurately. One's internal, mental state is a bit of information important to, but not always sufficient for, the accurate description of one's emotions. In this way our view of the emotions is similar to the "mood as information" (see Clore et al., 2001) and "mood as input" views (Martin, 2001). As we understand it, the mood as information view is that we infer the properties of a stimulus from the affective state we find ourselves in when encountering it. Specifically, if we find ourselves in a bad mood on encountering an object we infer—correctly or incorrectly—that the object is bad in some way.

Of course, the more one emphasizes the role of cognition, the more one has to restrict emotions to humans and higher mammals. Since some of the basic neurochemistry of emotion is present even in very primitive organisms, that would seem to be a problem. However, increasingly theorists do propose reserving the term "emotion" for such interpreted states. Whereas all organisms require some kind of evaluative or affective reactions to survive, emotions are elaborations of these affective reactions that require interpretation and that often also involve the kind of re-entrant processing that characterizes consciousness (e.g., Barrett, 2006; Baumeister, Vohs, & Tice, 2006; Clore & Ortony, in press; Cunningham & Zelazo, 2007).

Summary. Traditionally, specific emotions have been thought to reflect distinctive circuits in the body and brain and their impact on experience, expression, and cognition has been assumed to follow the activation of such emotion circuits. Accordingly, explanations for emotional phenomena have typically been sought in the nature of the emotions themselves. We have proposed instead that the effects of emotion on judgment and performance depend also on the nature of their objects. We argued, along with Barrett (2006), Sabini and Silver (2005), Ortony et al. (1988), and other recent appraisal theories, that emotions are multi-faceted representations of psychologically significant situations.

Some Implications

In this article we have talked about affect and its object as separable elements. The tendency to think this way may be an occupational hazard of doing research involving misattributions. By contrast, in prototypical instances of emotion, one thinks of the object of the affect as coming first and of the affective reaction itself as dictated by that object. In that regard, LeDoux (1996) is fond of saying that "emotion is memory," implying that emotions occur in situations already

loaded with emotional significance. Thus, the working example of emotion for William James (1884) was the experience of meeting a bear in the woods. In that situation, as much as one might wish it otherwise, the object is not easily changed. Hence, as a critic might point out, emotions are not arbitrary events; they evolved as responses to real-world obstacles and opportunities.

All that is true enough, but it is also true that people's reactions differ even in such stark situations, and those differences may often reflect distinctive interpretations of the emotional object. In the process of emotion generation, soon after subcortical circuits are activated, the signal also reaches the cortex, and most emotional and behavioral responses ultimately reflect a highly processed or interpreted version of whatever stimulus started the process (Cunningham & Zelazo, 2007). In addition, as the research on emotion regulation indicates, cognitive reappraisal can effectively alter people's perceptions of emotional objects and hence the emotional reactions that result (e.g., Gross, 2001; Ochsner & Gross, 2005). Thus, despite its subcortical activation, its embodied nature, and the brute facts around which affective systems evolved, human emotion also depends on how people interpret the object of their affect.

Some of the landmark studies of psychology are memorable in part because they illustrate this fact. In the classic studies of delay of gratification by Mischel, for example, the children he observed were able to keep from eating a marshmallow during a delay period by thinking about it, not as a tempting marshmallow, but as a little (inedible) cloud (Mischel, Shoda, & Rodriguez, 1989). And in a related way, in Dweck's studies (Dweck & Leggett, 1988), when her fourth and fifth graders received failure feedback, the extent to which they felt badly and persevered or gave up depended on whether the object of their negative affect was that they had not tried hard enough or that they were not smart enough. Thus, the way in which individuals interpret and transform the object of their affect influences emotional intensity, as well as their ability to regulate such emotions.

Outcome Implications and Emotional Intensity

As illustrated by the research just described, the intensity of affective reactions can depend on the range of outcome implications that appear to hang in the balance. The strategic use of this relationship is common in political rhetoric. In 2001, US President George W. Bush characterized the struggle with terrorism as, "A war between good and evil . . . a war to save the world."³ In a similar manner, in 2008, Serbian nationalists justified their forceful resistance to the declaration of independence of the ethnic Albanians of Kosovo by saying, "What the West must understand is that we are not just defending Serbia, we are defending Europe against Muslim aggression" (Sengupta, 2007, p. 2). Such examples, multiplied thousands of times in thousands of conflicts, illustrate how the power of an affective response can be manipulated by changes in the framing of its object. The same process works for positive as well as negative emotions. For example, the speeches of Martin Luther King fueled the emotions

of civil rights supporters in his day by evoking powerful and poetic images of a future of peace, justice, and brotherhood. Characterizations of any potential outcome in terms of important, shared goals have the potential to amplify its emotional value and any motivation that derives from that value.

We have been discussing what happens when different objects of affect are chosen, but also relevant is the question of what happens when the object remains the same, but people's level of awareness of it changes? There are at least two aspects to that question. The first concerns being unconscious of the affective object, and the second concerns being uncertain about it.

Unconscious Objects

As discussed above, we have tended to treat affect and affective objects as separable. This idea was also evident in Freud's psychodynamic theory. He proposed that repressed ideas were stripped of their affective energy in order to keep them unconscious. In his treatment, such unattached affect was potentially powerful because it could attach itself to substitute ideas and drive them into consciousness. He thus anticipated modern cognitive psychology and the concept of spreading activation. To the extent that such displaced affect and substitute thoughts were problematic, he devised a method of psychotherapy aimed at reconnecting the affect to its source idea by examining people's free associations and related techniques. From that time to the present, it has often been assumed that unconscious affective objects are especially powerful.

From the current perspective, unconscious objects of affect can be powerful because of the obscurity of their source. Without being dedicated to an object, they are subject to misattribution, like the affect from mood states. In both cases, the range of their possible meaning and significance is cognitively unconstrained (e.g., Clore & Colcombe, 2003; Clore, Storbeck, Robinson, & Centerbar, 2005). Again, then, some of the power of affect can be seen to reside in aspects of its object, or in this case in the fact that the possible objects are unlimited.

Uncertain Objects

A second consideration concerns uncertainty about the object of affect. Imaginative research has been done on the "pleasures of uncertainty" showing that a pleasant experience lasts longer to the extent that some uncertainty remains about its source (Wilson & Gilbert, 2007). In one study, participants were told that one of three other unseen participants liked them (Wilson, Centerbar, Kermer, & Gilbert, 2005). Although the other participants would never be seen and were identified only as A, B, or C, the knowledge of being liked by one of them was more powerful for those who remained ignorant of which one than for those who learned that the source was B or C or A. Wilson and Gilbert (in press) explain such findings in terms of their AREA model, which says that people *attend* to self-relevant, unexplained events, *react* emotionally to these events, *explain* or make sense of the events, and thereby *adapt* to the events. They thus

propose an effect that might be seen as an *affective Zeigarnic effect*, in which events that remain incomplete by virtue of being unexplained retain the power to attract attention and sustain affect. Thus, whereas being unconscious of the object can be powerful by making the associated affect spread, uncertainty about the object can be powerful by making the associated affect endure.

Abstract and Symbolic Objects

In many human situations the object of emotion is not something concrete like a snake or a bear in the woods, but something abstract and imagined, such as a feared loss of face or honor or some other symbolic thing. If being unconscious or uncertain about an affective object can contribute to the power of affect, and if implicating the most important goals and standards can increase its power, what happens if one combines the two? That is, are affective objects even more powerful when they implicate very basic human concerns and do so only indirectly or symbolically?

We suspect that indirection can be powerful by activating a concern only peripherally, so that it never becomes the object of critical thought. In politics, for example, innuendo can be damaging because it can plant a suspicion about someone that stays active even if unfounded (Wegner, 2002). If asserted directly, it could be critically appraised and refuted, but if only suggested it may be unwittingly stored in memory. In a related way, certain abstract or symbolic objects, such as honor and patriotism, might carry great emotional power by indirectly activating primary human concerns about belonging and in-group acceptance and rejection or basic moral standards.

Haidt and Graham (2007) have proposed several universal moral values that are capable of eliciting strong moral emotions. Events and actions perceived as threatening one of these important goals or basic values are likely to elicit strong emotion. Sometimes invoking abstractions or symbols that implicate such strong motives can lead to tragic action. Lynchings of Blacks by Whites a hundred years ago were often fueled by ideas about impurity applied to race, and by perceived threats to established social hierarchy and traditional social values. Duels were generally fought over perceived slights to honor, and countless wars have been motivated or justified by patriotic and religious ideas. Such abstractions and symbolic goals and standards have often been invoked by political leaders in the knowledge that threats to one's own group and fear of outsiders can always be activated to generate the emotion and motivation required for violence.

Existentialism and Counterculture

In the 20th century, tragic world events inspired some to express dismay at what they saw as the perverse influence of such emotionally potent abstractions as duty, honor, and patriotism. The devastation of the first and second world wars generated movements such as existentialism, which sought to undermine the basis of these abstractions by proposing that humans are alone in

an indifferent universe. Sartre (1943) proclaimed that "existence precedes essence," by which he meant to deflate these potent abstractions and reduce them to specific behaviors of individuals in the here and now.

A related but different set of ideas was espoused by the hippie or counterculture movement of 1960s and 1970s America. The movement focused on the here and now, on sensory pleasure, and on sex, and song lyrics of the time emphasized emotional freedom. They expressed anti-establishment ideas, and warned that people over 30 could not be trusted. Older people were likely to be blinded by the kinds of abstractions that motivated military action abroad and racism at home.

Emotions, they implied, should not be about abstractions. They are immediate reactions to the here and now and are valid only when that is the case. Being authentic, rather than phony, meant acting toward others without regard to class, race, status, nationality, or other abstractions; acting instead on emotions elicited by palpable reality. Thus, they rejected the idea that it could be good to go to Viet Nam and kill and maim for an ideology.

What does the hippie philosophy have to do with cognition and emotion? The ironic thesis of this article is that to a surprising extent the power of emotion lies in cognition. That is, the power of affect and emotion lies in the ideas that they take as their object. Thus, there is a sense in which the hippies might have appreciated our message.

We are emphasizing that the impact of emotion and affect depends on their objects, and because of this fact, the framing of public events can become a political battleground. Thus, when people battle over whether to frame abortion as a woman's right to choose or as murder of the unborn, to use only one of many contemporary examples, they do so because they recognize that the power of emotions lies in how the objects of emotion are characterized.

Summary

In this article, our claim has been that the nature and impact of affective reactions depend largely on their objects. We explored this idea in several different domains, using both empirical and conceptual analyses to, we hope, convince the reader of the importance of affective objects in understanding the dynamics of affect.

In the first two sections, we examined this idea in the context of affective influences on judgments and cognitive processing. In judgment contexts, we suggested that positive or negative affect tends to confer positive or negative value on whatever is in mind at the time. We then cited research to illustrate the principle that affective influences on judgment depend critically on the objects to which they are associated or attributed; a basic claim of the affect-as-information approach. We then turned to affective influences on cognitive processes. In that section, rather than assuming that positive and negative affect are dedicated to particular cognitive or attentional styles, we entertained the hypothesis that affect may influence cognitive processing by conferring positive or

negative value on whatever cognitions and inclinations are accessible. In this view, positive affect should encourage accessible response and negative affect should discourage such responses. We then cited recent research consistent with this view, and showed that the standard link between positive and negative moods and specific cognitive processing styles depends critically on what style of processing is already most accessible.

In the next section, we briefly outlined the OCC model of emotions (Ortony et al., 1988) which provides situational eliciting conditions for most common emotions. We then reviewed research suggesting that the impact of specific emotions on judgment and cognitive processing follows the same rules as the effects of mood, but that the objects of emotions constrain their effects. Included was research on disgust, fear and anxiety, sadness, and anger.

In the next section, we proposed that emotions are representations of particular psychologically significant situations. We argued that whatever discreteness is found in discrete emotions lay in the situations to which they are responses. We also reviewed theories of emotion that have also characterized emotions in terms of the psychological situations that elicit them.

Finally, we alluded to several implications of the view that we have advanced. Specifically, we cited examples of how the impact of affect and emotion could be amplified by framing the object in terms of important human goals. In addition, we examined how unconscious, uncertain, or symbolic objects of emotion might all contribute to emotional consequences. We suggested that abstract and symbolic objects such as duty, honor, and patriotism have historically been invoked to elicit emotion and motivation for war and sacrifice. Finally, we noted that postwar existentialism and the counterculture of the 1960s both involved efforts to undermine what was seen as the perverse role of abstract and symbolic objects of emotion in human affairs. We thus sought to illustrate some of the possible implications of the, perhaps ironic, claim that much of the power of emotion depends on cognitions about its object.

Notes

- 1 The term “embodied” here is intended to emphasize that our reference to emotions as evaluations and representations should be understood as multi-faceted, including not only cognitive, but also bodily, expressive, experiential and other representations of evaluation.
- 2 Because it was designed to be computer implementable, the primary domain of application for the OCC theory has been in the design of “believable agents” in computer applications. Many examples can be found using search terms that include “OCC” and “emotion” and perhaps “game,” “tutor,” “narrative,” and so on. For example, see <http://ieeexplore.ieee.org/ie15/7214/19427/00897236.pdf>; www.di.uniba.it/intint/sonthofen/mourao-f.doc.
- 3 President George W. Bush, war, 2001 Remarks to State Department Employees. URL: <http://www.sourcewatch.org/index.php?title=Evildoers>.

References

- Aarts, H., Custers, R., & Holland, R. W. (2007). The nonconscious cessation of goal pursuit: When goals and negative affect are coactivated. *Journal of Personality and Social Psychology*, *92*, 165–178.
- Arnold, M. B. (1960). *Emotion and personality*. New York: Columbia University Press.
- Bargh, J. A., Chaiken, S., Raymond, P., & Hymes, C. (1996). The automatic evaluation effect. Unconditionally automatic attitude activation in a pronunciation task. *Journal of Experimental Social Psychology*, *32*, 104–120.
- Barrett, L. F. (2006). Emotions as natural kinds? *Perspectives on Psychological Science*, *1*, 28–58.
- Baumeister, R. F., Vohs, K. D., & Tice, D. M. (2006). Emotional influences on decision making. In J. P. Forgas (Ed.), *Affect in social thinking, and behavior* (pp. 143–160). New York: Psychology Press.
- Bless, H. (2001). Mood and the use of general knowledge structures. In L. L. Martin & G. L. Clore (Eds.), *Theories of mood and cognition: A user's guidebook* (pp. 9–26). Mahwah, NJ: Erlbaum.
- Bless, H., Clore, G., Schwarz, N., Golisano, V., Rabe, C., & Wolk, M. (1996). Mood and the use of scripts: Does happy mood really lead to mindlessness? *Journal of Personality and Social Psychology*, *71*, 665–679.
- Bless, H., & Schwarz, N. (1999). Sufficient and necessary conditions in dual process models: The case of mood and information processing. In S. Chaiken & Y. Trope (Eds.), *Dual process theories in social psychology* (pp. 423–440). New York: Guilford.
- Bodenhausen, G. & Macrae, C. N. (1998). Stereotype activation and inhibition. In R. S. Wyer (Ed.), *Advances in social cognition* (Vol. 11, pp. 1–52). Mahwah, NJ: Erlbaum.
- Bodenhausen, G. V., & Moreno, K. N. (2000). How do I feel about them? The role of affective reactions in intergroup perception. In H. Bless & J. P. Forgas (Eds.), *The message within: Subjective experience in social cognition and behavior* (pp. 283–303). Philadelphia, PA: Psychology Press.
- Bodenhausen, G. V., Shepard, L., & Kramer, G. P. (1994). Negative affect and social judgment: The different impact of anger and sadness. *European Journal of Social Psychology*, *24*, 45–62.
- Briñol, P., & Petty, R. E. (2003). Overt head movements and persuasion: A self-validation analysis. *Journal of Personality and Social Psychology*, *84*, 1123–1139.
- Briñol, P., Petty, R. E., & Barden, J. (2008). Happiness versus sadness as a determinant of thought confidence in persuasion: A self-validation analysis. *Journal of Personality and Social Psychology*, *93*, 711–727.
- Briñol, P., Petty, R. E., Valle, C., Rucker, D. D., & Becerra, A. (2007). The effects of message recipients' power before and after persuasion: A self-validation analysis. *Journal of Personality and Social Psychology*, *93*, 1040–1053.
- Bruner, J. S. (1957). Going beyond the information given. In J. S. Bruner, E. Brunswik, L. Festinger, F. Heider, K. F. Muenzinger, C. E. Osgood, & D. Rapaport (Eds.), *Contemporary approaches to cognition* (pp. 41–69). Cambridge, MA: Harvard University Press.
- Clore, G. L. (1992). Cognitive phenomenology: Feelings and the construction of judgment. In L. L. Martin & A. Tesser (Eds.), *The construction of social judgments* (pp. 133–163). Hillsdale, NJ: Erlbaum.
- Clore, G. L., & Colcombe, S. (2003). The parallel worlds of affective concepts and feelings. In J. Musch & K. C. Klauer (Eds.), *The psychology of evaluation: Affective processes in cognition and emotion* (pp. 335–370). Mahwah, NJ: Erlbaum.
- Clore, G. L., & Huntsinger, J. R. (2007). How emotions inform judgment and regulate thought. *Trends in Cognitive Science*, *11*, 393–399.

- Clore, G. L. & Ortony, A. (in press). Appraisal theories: How cognition shapes affect into emotion. In M. Lewis, J.M. Haviland-Jones, & L. F. Barrett (Eds.). *Handbook of emotions*, 3rd ed. New York: Guilford.
- Clore, G. L., Storbeck, J., Robinson, M. D., & Centerbar, D. (2005). Seven sins of research on unconscious affect. In L. F. Barrett, P. Niedenthal, & P. Winkielman (Eds.), *Emotion and consciousness* (pp. 384–408). New York: Guilford.
- Clore, G. L., Wyer R. S., Dienes, B., Gasper, K., Gohm, C. L., & Isbell, L. (2001). Affective feelings as feedback: Some cognitive consequences. In L. L. Martin & G. L. Clore (Eds.), *Theories of mood and cognition: A user's handbook* (pp. 27–62). Mahwah, NJ: Erlbaum Associates.
- Constans, J. I., & Mathews, A. M. (1993). Mood and the subjective risk of future events. *Cognition and Emotion*, 7, 545–560.
- Cunningham, W., & Zelazo, P. D. (2007). Attitudes and evaluation: A social cognitive neuroscience perspective. *Trends in Cognitive Sciences*, 11, 97–104.
- Custers, R., & Aarts, H. (2005). Positive affect as implicit motivator: On the nonconscious operation of behavioral goals. *Journal of Personality and Social Psychology*, 89, 129–142.
- Dasgupta, N., & Asgari, S. (2004). Seeing is believing: Exposure to counterstereotypic women leaders and its effect on automatic gender stereotyping. *Journal of Experimental Social Psychology*, 40, 642–658.
- Derryberry, D., & Reed, M. A. (1998). Anxiety and attentional focusing: Trait, state, and hemispheric influences. *Personality and Individual Differences*, 25, 745–761.
- Derryberry, D., & Tucker, D. M. (1994). Motivating the focus of attention. In P. Niedenthal & S. Kitayama (Eds.), *The heart's eye: Emotional influences in perception and attention*. New York: Academic Press.
- DeSteno, D., Dasgupta, N., Bartlett, M. Y., & Caidric, A. (2004). Prejudice from thin air: The effect of emotion on automatic intergroup attitudes. *Psychological Science*, 15, 319–325.
- Devine, P. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, 56, 5–18.
- Dweck, C., & Leggett, E. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95, 256–273.
- Ekman, P., Friesen, W. V., & Ellsworth, P. (1982). What emotion categories or dimensions can observers judge from facial behavior? In P. Ekman (Ed.), *Emotion in the human face* (pp. 39–55). New York: Cambridge University Press.
- Eyal, T., Fishbach, A., & Labroo, A. A. (2007). When mood cues goal progress versus goal adoption: A matter of (mis)attribution. Unpublished manuscript, University of Chicago.
- Fazio, R. H. (2001). On the automatic activation of associated evaluations: An overview. *Cognition and Emotion*, 15, 115–141.
- Fiedler, K. (2001). Affective states trigger processes of assimilation and accommodation. In L. L. Martin & G. L. Clore (Eds.), *Theories of mood and cognition: A user's handbook* (pp. 85–98). Mahwah, NJ: Erlbaum.
- Fishbach, A., & Labroo, A. A. (2007). Be better or be merry: How mood affects self-control. *Journal of Personality and Social Psychology*, 93, 158–173.
- Forgas, J. P. (2001). The Affect Infusion Model (AIM): An integrative theory of mood effects on cognition and judgments. In L. L. Martin & G. L. Clore (Eds.), *Theories of mood and cognition* (pp. 99–134). Mahwah, NJ: Erlbaum.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218–226.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition and Emotion*, 19, 313–332.
- Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From power to action. *Journal of Personality and Social Psychology*, 85, 453–466.
- Gallagher, D. & Clore, G. L. (1985, May). *Effects of fear and anger on judgments of risk and evaluations of blame*. Chicago: Midwestern Psychological Association.
- Gasper, K. (2004). Permission to seek freely? The effect of happy and sad moods on generating old and new ideas. *Creativity Research Journal*, 16, 215–229.
- Gasper, K., & Clore, G. L. (1998). The persistent use of negative affect by anxious individuals to estimate risk. *Journal of Personality and Social Psychology*, 74, 1350–1363.
- Gasper, K., & Clore, G. L. (2002). Attending to the big picture: Mood and global vs. local processing of visual information. *Psychological Science*, 13, 34–40.
- Gray, J. A. (1982). *The neuropsychology of anxiety*. Oxford: Oxford University Press.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. K. L. (1998). Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology*, 74, 1464–1480.
- Gross, J. J. (2001). Emotion regulation in adulthood: Timing is everything. *Current Directions in Psychological Science* 10, 214–219.
- Guinote, A. (2007). Behaviour variability and the Situated Focus Theory of Power. *European Review of Social Psychology*, 18, 256–295.
- Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research*, 20, 98–116.
- Han, S., Lerner, J. S., & Keltner, D. (2007). Feelings and consumer decision making: The appraisal-tendency framework. *Journal of Consumer Psychology*, 17, 158–168.
- Harmon-Jones, E., & Allen, J. J. B. (1998). Anger and prefrontal brain activity: EEG asymmetry consistent with approach motivation despite negative affective valence. *Journal of Personality and Social Psychology*, 74, 1310–1316.
- Hirt, E. R., Levine, G. M., McDonald, H. E., Melton, R. J., & Martin, L. L. (1997). The role of mood in quantitative and qualitative aspects of performance: Single or multiple mechanisms? *Journal of Experimental Social Psychology*, 33, 602–629.
- Huddy, L., Feldman, S., & Cassese E. (2007). On the distinct political effects of anxiety and anger. In A. Crigler, M. MacKuen, G. E. Marcus, and W. R. Neuman (Eds.), *The political dynamics of feeling and thinking*. University of Chicago Press.
- Huntsinger, J. R. (2007). If it feels right, go with it: Mood regulates automatic processes. Doctoral Dissertation, University of Virginia.
- Huntsinger, J. R., Ashton-James, C., & Clore, G. L. (2007). The affective regulation of social category priming: Attitude and behavior. Unpublished manuscript, University of Virginia.
- Huntsinger, J. R., Clore, G. L., & Bar-Anon, Y. (2007). Do happy people always focus on the forest?: Mood and global-local processing revisited. Unpublished manuscript.
- Huntsinger, J. R., Sinclair, S., & Clore, G. (2007). Affective regulation of implicit attitude: Automatic and controlled processes. Unpublished manuscript, University of Virginia.
- Huntsinger, J. R., Sinclair, S., Dunn, E., & Clore, G.L. (2007). When intergroup bias feels right (or wrong). Unpublished manuscript, University of Virginia.
- Isbell, L. M. (2004). Not all happy people are lazy or stupid: Evidence of systematic processing in happy moods. *Journal of Experimental Social Psychology*, 40, 341–349.
- Isen, A. M. (2000). Positive affect and decision making. In M. Lewis & J. Haviland-Jones (Eds.), *Handbook of emotions* (2nd ed., pp. 417–435). New York: Guilford.
- Izard, C. E. (1971). *The face of emotion*. New York: Appleton-Century-Crofts.
- Jacoby, L. L. (1991). A process dissociation framework: Separating automatic from intentional uses of memory. *Journal of Memory and Language*, 30, 513–541.
- James, W. (1884). What is an emotion? *Mind*, 9, 188–205.
- Kadous, K. (2001). Improving jurors' evaluations of auditors in negligence cases. *Contemporary Accounting Research*, 18, 425–444.

- Kawakami, K., Dovidio, J. F., & Dijksterhuis, A. (2003). Effects of social category priming on personal attitudes. *Psychological Science, 14*, 315–319.
- Keltner, D., Ellsworth, P., & Edwards, K. (1993). Beyond simple pessimism: Effects of sadness and anger on social perception. *Journal of Personality and Social Psychology, 64*, 740–752.
- Kimchi, R., & Palmer, S. E. (1982). Form and texture in hierarchically constructed patterns. *Journal of Experimental Psychology: Human Perception and Performance, 8*, 521–535.
- Koo, M., Clore, G. L., Kim, J., & Choi, I. (2008, February). *Affect, cognition, and culture: How mood acts on culturally dominant thinking styles*. Albuquerque: Society for Personality and Social Psychology.
- LeDoux, J. E. (1996). *The emotional brain*. New York: Simon and Schuster.
- Lerner, J. S., Gonzalez, R. M., Small, D. A., & Fischhoff, B. (2003). Effects of fear and anger on perceived risks of terrorism: A national field experiment. *Psychological Science, 14*, 144–150.
- Lerner, J. S., & Keltner, D. (2000). Beyond valence: Towards a model of emotion specific influences on judgment and choice. *Cognition & Emotion, 14*, 473–493.
- Lerner, J. S., & Keltner, D. (2001). Fear, anger, and risk. *Journal of Personality and Social Psychology, 81*(1), 146–159.
- Lerner, J. S., Small, D. A., & Loewenstein, G. (2004). Heart strings and purse strings. Carryover effects of emotions on economic decisions. *Psychological Science, 15*, 337–341.
- Lerner, J.S., & Tiedens, L.Z. (2006). Portrait of the angry decision maker: How appraisal tendencies shape anger's influence on cognition. *Journal of Behavioral Decision Making, 19*, 115–137.
- Mackie, D. M., & Worth, L. T. (1989). Cognitive deficits and the mediation of positive affect in persuasion. *Journal of Personality and Social Psychology, 57*, 27–40.
- Martin, L. L. (2001). Mood as input: A configural view of mood effects. In L. L. Martin & G. L. Clore (Eds.), *Theories of mood and cognition: A user's guidebook* (pp. 135–158). Mahwah, NJ: Erlbaum.
- Martin, L. L., Achee, J. W., Ward, D. W., & Wyer, R. S. (1993). Mood as input: People have to interpret the motivational implications of their moods. *Journal of Personality and Social Psychology, 64*, 317–326.
- McDougall, W. (1926). *An introduction to social psychology*. Boston: Luce.
- Mischel, W., Shoda, Y., & Rodriguez, M. L. (1989). Delay of gratification in children. *Science, 244*, 933–938.
- Moskowitz, G. B., Gollwitzer, P. M., Wasel, W., & Schaal, B. (1999). Preconscious control of stereotype activation through chronic egalitarian goals. *Journal of Personality and Social Psychology, 77*, 167–184.
- Neely, J. H. (1991). Semantic priming effects in visual word recognition: A selective review of current findings and theories. In D. Besner & G. W. Humphreys (Eds.), *Basic processes in reading* (pp. 264–336). Hillsdale, NJ: Erlbaum.
- Nisbett, R. E. (2003). *The geography of thought: How Asians and Westerners think differently... and why*. New York: The Free Press.
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic vs. analytic cognition. *Psychological Review, 108*, 291–310.
- Oatley, K., & Johnson-Laird, P. N. (1987). Towards a cognitive theory of the emotions. *Cognition and Emotion, 1*, 29–50.
- Ochsner, K. N., & Gross, J. J. (2005). The cognitive control of emotion. *Trends in Cognitive Sciences, 9*, 242–249.
- Ortony, A., Clore, G. L., & Collins, A. (1988). *The cognitive structure of emotions*. New York: Cambridge University Press.
- Payne, B. K. (2005). Conceptualizing control in social cognition: How executive functioning modulates the expression of automatic stereotyping. *Journal of Personality and Social Psychology, 89*, 488–503.
- Plutchik, R. (1980). A general psychoevolutionary theory of emotion. In R. Plutchik & H. Kellerman (Eds.), *Emotion: Theory, research, and experience: Vol. 1. Theories of emotion* (pp. 3–31). New York: Academic Press.
- Proffitt, D. R. (2006). Embodied perception and the economy of action. *Perspectives on Psychological Science, 1*, 110–122.
- 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.
- Raghunathan, R., Pham, M. T., & Corfman, K. P. (2006). Informational properties of anxiety and sadness, and displaced coping. *Journal of Consumer Research, 32*(4).
- Riener, C., Stefanucci, J., Proffitt, D., & Clore, G. L. (2003, June). Mood and the perception of spatial layout. Presented at the Psychonomics Society, Vancouver.
- Rozin, P., Haidt, J., & McCauley, C. (2000). Disgust. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions* (2nd ed., pp. 637–653). New York: Guilford.
- Ruder, M., & Bless, H. (2003). Mood and the reliance on the ease of retrieval heuristic. *Journal of Personality and Social Psychology, 85*, 20–32.
- Russell, J. A. (2003). Core affect and the psychological construction of emotion. *Psychological Review, 110*, 145–172.
- Sabini, J., & Silver, M. (2005). Why emotion names and experiences don't neatly pair. *Psychological Inquiry, 16*, 1–10.
- Sartre, J. P. (1943). *Being and nothingness: An essay on phenomenological ontology*, (H. Barnes, Trans.). New York: Philosophical Library, 1956.
- Schachter, S., & Singer, J. E. (1962) Cognitive, social and physiological determinants of emotional states. *Psychological Review, 69*, 379–399.
- Schnall, S., Haidt, J., Clore, G. L., & Jordan, A. H. (in press). Disgust as embodied moral judgment. *Personality and Social Psychology Bulletin*.
- Schwarz, N. (1990). Feelings as information: Informational and motivational functions of affective states. In E. T. Higgins & R. Sorrentino (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (Vol. 2, pp. 527–561). New York: Guilford.
- Schwarz, N. (1998). Accessible content and accessibility experiences: The interplay of declarative and experiential information in judgment. *Personality and Social Psychology Review, 2*, 87–99.
- Schwarz, N., Bless, H., & Bohner, G. (1991). Mood and persuasion: Affective states influence the processing of persuasive communications. *Advances in Experimental Social Psychology, 24*, 161–199.
- Schwarz, N., Bless, H., Strack, G., Klumpp, Rittenauer-Schatka, H., & Simons, A. (1991). Ease of retrieval as information: Another look at the availability heuristic. *Journal of Personality and Social Psychology, 61*, 195–202.
- 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*, 513–523.
- Schwarz, N., & Clore, G. L. (1988). How do I feel about it? Informative functions of affective states. In K. Fiedler & J. Forgas (Eds.), *Affect, cognition and social behavior* (pp. 44–62). Toronto: Hogrefe International.
- Schwarz, N., & Clore, G.L. (2007). Feelings and phenomenal experiences. In E. T. Higgins & A. Kruglanski (Eds.), *Social Psychology: A Handbook of Basic Principles*. 2nd ed. (pp. 385–407). New York: Guilford.
- Sengupta, K. (2007). "We are defending Europe against Muslim aggression." *The Independent*, Friday, Dec. 7, 2007, p. 2.
- Sinclair, S., & Huntsinger, J. (2006). The interpersonal basis of self-stereotyping. In S. Levin & C. van Laar (Eds.), *Claremont symposium on applied social psychology: Stigma and group inequality: Social psychological approaches*. Mahwah, NJ: Erlbaum.
- Slovic, P., Finucane, M., Peters, E., & MacGregor, D. G. (2002). The affect heuristic. In T. Gilovich, D. Griffin, & D. Kahneman (Eds.), *The psychology of intuitive judgment: Heuristics and biases* (pp. 397–420). Cambridge: Cambridge University Press.
- Small, D. A., Lerner, J. S., & Fischhoff, B. (2006). Emotion priming and spontaneous attributions for terrorism: Americans' reactions in a national field experiment. *Political Psychology, 27*, 289–298.

- Smith, P. K., & Trope, Y. (2006). You focus on the forest when you're in charge of the trees: Power priming and abstract information processing. *Journal of Personality and Social Psychology, 90*, 578–596.
- Stansbury, J. A., Tsai, J., & Munro, G. D. (2007, May). Misattribution of negative affect reduces biased assimilation of scientific information. Paper presented at the annual meeting of the Association of Psychological Science, Washington, DC.
- Stefanucci, J. K., & Proffitt, D. R. (2008). The roles of altitude and fear in the perception of height. Unpublished manuscript, William & Mary University.
- Stefanucci, J. K., Proffitt, D. R., Clore, G., & Parekh, N. (in press). Skating down a steeper slope: Fear influences the perception of geographical slant. *Perception*.
- Storbeck, J., & Clore, G. L. (2005). With sadness comes accuracy, with happiness, false memory: Mood and the false memory effect. *Psychological Science, 16*, 785–791.
- Storbeck, J. & Clore, G. L. (in press). The affective regulation of semantic and affective priming. *Emotion*.
- Tice, D. M., Bratslavsky, E., & Baumeister, R. F. (2001). Emotional distress regulation takes precedence over impulse control: "If you feel bad, do it!" *Journal of Personality and Social Psychology, 80*, 53–67.
- Tomkins, S. S. (1984). Affect theory. In K. R. Scherer & P. Ekman (Eds.), *Approaches to emotion* (pp. 163–195). Hillsdale, NJ: Erlbaum.
- Trope, Y., Igou, E., & Burke, C. (2006). Mood as a resource in structuring goal pursuit. In J. Forgas (Ed.), *Handbook of affect and cognition* (Vol. 5). N Y: Guilford.
- Watson, J. B. (1930). *Behaviorism*. Chicago: University of Chicago Press.
- Wegener, D. T., & Petty, R. E. (2001). Understanding effects of mood through the Elaboration Likelihood and Flexible Correction models. In L. L. Martin & G. L. Clore (Eds.), *Theories of mood and cognition: A user's guidebook* (pp. 177–210). Mahwah, NJ: Erlbaum.
- 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.
- Wegner, D. M. (2002). *The illusion of conscious will*. Cambridge, MA: MIT Press.
- Weiner, B., & Graham, S. (1984). An attributional approach to emotional development. In C. Izard, J. Kagan, & R. Zajonc (Eds.), *Emotion, cognition, and behavior* (pp. 167–191). New York: Cambridge University Press.
- Wheatley, T., & Haidt, J. (2005). Hypnotically induced disgust makes moral judgments more severe. *Psychological Science, 16*, 780–784.
- Wilson, T. D., Centerbar, D. B., Kermer, D. A., & Gilbert, D. T. (2005). The pleasures of uncertainty: Prolonging positive moods in ways people do not anticipate. *Journal of Personality and Social Psychology, 88*, 5–21.
- Wilson, T. D., & Gilbert, D. T. (2008). Explaining away: A model of affective adaptation. *Perspectives on Psychological Science, 5*, 372–388.
- Wilson, T. D., & Gilbert, D. T. (in press). *Making sense: A model of affective adaptation*. Unpublished manuscript. University of Virginia.
- Winkielman, P. & Berridge, K. C. (2004). Unconscious emotion. *Current Directions in Psychological Science, 13*, 120–123.
- Wyer, R. S., Clore, G., & Isbell, L. (1999). Affect and information processing. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology, 31*, 1–77.