

Structure of Emotions

20 Motivations and Emotions: Approach, Avoidance, and Other Tendencies in Motivated and Emotional Behavior

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The concepts of motivation and emotion have been used across cultures and historical time periods to help explain human behavior. But motivation and emotion often are assigned to do similar theoretical work: accounting for the energy of behavior, that is, determining whether or not any action will occur and/or the magnitude or intensity of action (e.g., Hull, 1943; Lindsley, 1951). Motivation and emotion are usually also held to influence the direction of behavior: determining which particular behaviors will occur. But determining direction is not as unique a function of these variables, given that situational, learning history, and cognitive factors are also held to influence behavior specificity.

Perhaps in part because both variable types can account for the energization of action, during some periods in the history of psychology either motivation or emotion—but not both—has played relatively dominant roles in the mainstream of psychological theorizing. For example, from the 1920s through the 1950s, motivational or motive-like constructs such as instinct, drive, and reinforcement were much discussed and emotion got relatively short shrift; from the 1960s through the present, emotion became more dominant and there has been correspondingly less theoretical and research interest in motivation (though interest in motivational constructs seems to have been rising since the 1980s; see, e.g., Sorrentino & Higgins, 1986).

But while motivation and emotion may perform similar functions in psychological theories, and a number of theories do not distinguish between them (e.g., Murray, 1938; Plutchik, 1962), it is also true that different properties have been ascribed to motivational and emotional constructs, and some theoretical systems include both types of variables (e.g., as described below). In this chapter I will examine the general similarities, differences, and relationships between motivations and emotions, and also consider whether there are different types of motivations and emotions which have different types of effects upon behavior.

MOTIVATIONS AND EMOTIONS: WHY DO WE NEED THEM (BOTH)?

What is a motive? What is an emotion? How are the two alike, and how do they differ? These are simple, straightforward questions, but they do not currently have simple,

straightforward answers. Theorists disagree, at least to some extent, about how motivation should be defined, and disagree profoundly about the nature of emotion.

WHAT IS MOTIVATION?

Kleinginna and Kleinginna (1981a,b) reviewed many definitions of both motivation and emotion, and proposed what they hoped might be integrative conceptualizations. They suggested (1981b, p. 272) that the term *motivation* refers to internal mechanisms that proximally energize behavior and give it direction (facilitating some actions while inhibiting others). In the introductory chapter to this volume, Elliot also identifies motivational processes as energizing and directing behavior, either toward positive stimuli or away from negative stimuli. A broader definition was adopted in Madsen's (1968, 1974) review of more than 40 motivation theories: motivation was defined as encompassing "all variables which arouse, sustain, and direct behavior" (1968, p. 46; see also Reeve, 2005).

However, Cofer and Appley (1964), in their classic volume *Motivation: Theory and Research*, argued that a definition of motivation which encompasses all internal and external causes of behavior is too broad. Nonmotivational causes of behavior, in their view, include externally applied force (such as a shove), the simple physical structure of an organism, and existing habits. They suggest that motivation might be postulated based on any or all of the following properties: "that behavior occurs at all, that a variety of responses is facilitated by some operation (like deprivation of food), that responses vary in vigor, that behavior has direction, that certain kinds of subsequent event may strengthen (and other kinds may weaken) a behavioral sequence" (p. 13).

If we combine

1. Kleinginna and Kleinginna's (1981b) conception of motivation as an internal state that serves to energize and direct behavior,
2. Cofer and Appley's distinction between merely caused versus motivated behavior, and their motivational properties of

- a. Facilitation of varied responses and
- b. Strengthening or weakening of behavioral sequences by subsequent events, and
- 3. Elliot's emphasis on approach and avoidance,

we may arrive at a conception of motivated action as behavior that can be described as at least partly determined by its consequences (e.g., increasing positive stimuli or decreasing negative stimuli)—that is, behavior which seems goal directed (for other conceptualizations of motivation in terms of goal-directed action, see Gollwitzer & Bargh, 1996).

I use the phrase “described as” (rather than actually) determined by its consequences, because future states cannot cause present behavior. Instead, some current state or process that is consequence-related (such as an expectation of future goal attainment or a process which repeatedly compares current states to fixed or variable set points or ranges) is causing motivated behavior, so that behavior is facilitated until the current representation or state corresponds more closely to a target set point or range, or less closely to an unsatisfactory set point or range (referred to by Carver & Scheier, 1998, as goals and antagoals respectively). For example, eating is motivated behavior which can be described (in part) as directed toward keeping levels of glucose, lipids, and the hormone ghrelin within target ranges (see Carlson, 2007, for a digestible summary). A motivation, then, is an internal state that produces behavior which can be described as moving toward desirable reference values or away from undesirable reference values.

WHAT IS AN EMOTION?

Kleinginna and Kleinginna (1981a) suggested emotion be defined as “a complex set of interactions among subjective and objective factors, mediated by neural/hormonal systems, which can: (a) give rise to affective experiences such as feelings of arousal, pleasure/displeasure; (b) generate cognitive processes such as emotionally relevant perceptual effects, appraisals, labeling processes; (c) activate widespread physiological adjustments to the arousing conditions; and (d) lead to behavior that is often, but not always, expressive, goal-directed, and adaptive” (p. 355). Similarly, in their introduction to the recent *Handbook of Affective Sciences*, Davidson, Scherer, and Goldsmith (2003) define emotion as “a relatively brief episode of coordinated brain, autonomic, and behavioral changes that facilitate a response to an external or internal event of significance to the organism” (p. xiii).

Building on Averill's (1980) conception of emotion as a *syndrome* of responses (none of which must occur in every

instance of the emotion), I have defined emotions as syndromes of “(a) *phenomenology* (thoughts and feeling qualities); (b) *physiology* (neural, chemical, and other physical responses in the brain and body); (c) *expressions* (signals of emotion state, such as facial, vocal, and postural responses); (d) *behaviors* (action tendencies or readinesses); and (e) *emotivations* (emotional motivations, conceptualized as characteristic goals that people want to attain when the emotion is experienced)” (Roseman, 2001, p. 75).

SIMILARITIES BETWEEN MOTIVATIONS AND EMOTIONS

According to these definitions, motivations and emotions have a number of similarities. Both are internal states or processes (and thus may be able to account for individual differences in response to the same event or situation). Both are used to explain the energy and direction of behavior. Both may lead to goal-directed action.

DIFFERENCES BETWEEN MOTIVATIONS AND EMOTIONS

Although motivations and emotions may have a number of similar properties, there are some internal states that tend to be conceptualized chiefly as motivations and others that are more typically identified as emotions. For example, hunger, thirst, sexual desire, and need for achievement have typically been seen as motivations; whereas joy, sadness, fear, and anger are typically regarded as emotions. These and a number of other prototypical motivations and emotions are shown in Table 20.1. The fair amount of consensus, at least on these exemplars, suggests that some differentiation of the two classes may be possible.

A number of authors have written about differences between motivations (instincts, drives, needs, motives,

TABLE 20.1
Some States Typically Regarded either as Motivations or as Emotions

Motivations	Emotions
Hunger	Joy (or happiness)
Thirst	Sadness
Sexual drive	Fear
Competence motivation	Anger
Need for achievement	Love
Need for approval	Disgust
Need for power	Shame
Cognitive dissonance	Pride
Need for cognition	Distress

desires, goals, etc., depending on the terminology of the day) and emotions. I will discuss especially the formulations of affect theory pioneer Silvan Tomkins.

Motivations as Specific Purpose Mechanisms; Emotions as General Purpose Mechanisms

Tomkins (1970) proposed that compared to motives (“drives”), emotions (“affects”) are more general with regard to “object” (p. 105). By this he meant that motives are activated by specific conditions, and direct behavior toward specific ends. For example, hunger is characteristically activated by food deprivation (and its biochemical and visceral consequences), thirst by water deprivation, and need for affiliation by the absence of desired social interaction; and these motives direct behavior specifically toward food, water, and social contact (one cannot generally satisfy one motive with the object of another).

In contrast, emotions can be produced by contingencies applicable to *any* motive. For example, attaining food or water or companionship or any current goal can elicit happiness; a threat to having food or water or companionship or any desired state can elicit fear; and another person’s interference with attainment of any motive can elicit anger (see Scherer, 1988, for examples of the range of events that can elicit joy, sadness, fear, and anger).

Motivations as Relatively Deliberative; Emotions as Relatively Impulsive

If motivated behavior can be described as influenced by its consequences, then it may be regarded as instrumental or goal-directed. Goal-directed action has been said to have the property of equifinality (Heider, 1958; Tesser, Martin, & Cornell, 1996)—a variety of means may be employed to approach a desired end or avoid one that is undesired. Insofar as cognitive processing influences enactment of particular motivated behaviors, goal-directed action may be described as *relatively* deliberative. For example, according to Expectancy-Value models of motivation (see Feather, 1982), a person may assess whether or not to take a particular action, or which of several possible actions to take, based on expected consequences (Ajzen, 1991; Atkinson, 1964; Gollwitzer, 1996). Note that such “deliberation” may occur without awareness, as when people unconsciously choose particular words to convey an intended meaning, or decide how to turn the steering wheel to stay on the road while driving (Bargh & Barndollar, 1996); or it may have occurred previously and merely be recalled or activated in a current situation, and as when people have previously decided what foods they will eat if hungry at breakfast time (cf. Ajzen, 2002); or it

may be based on nonconscious beliefs or expectations, as when an implicit belief that ability is malleable leads to persistence in the face of failure (Dweck, 1999) or when a new person’s resemblance to someone known triggers an unconscious expectation of acceptance or rejection and influences social approach or avoidance (Andersen, Reznik, & Glassman, 2005; Lewicki, 1985).

In contrast, much emotional behavior seems relatively impulsive (though I will also argue below for the existence of some deliberative emotional behavior). It seems we often do not plan how to enact our joy, sadness, fear, or anger to the same extent that we plan how to satisfy our hunger, social, or achievement needs (e.g., choosing which foods to eat, which people to approach, or which career goals to pursue). Particular emotions are linked to readinesses or tendencies to engage in particular actions, such as freezing in fear, yelling in anger, and doing nothing in sadness (Frijda, 1986; Lazarus, 1991; Roseman, Wiest, & Swartz, 1994). Many emotion researchers have commented on the feeling of relative compulsion that accompanies much emotional behavior. For example, Frijda (1986) described emotions as having “the character of urges or impulses” that “clamor for attention and for execution” (p. 78). For a recent similar perspective, see Strack and Deutsch (2005) who distinguish between reflective and impulsive motivational systems, with the latter often triggered by positive or negative affect.

Emotions Preempt Motivations

The main distinction between motivations and emotions mentioned by Tomkins (1970) is that emotions typically take precedence over motivations. Tomkins argued that sexual drive, for example, which was accorded such importance in Freudian theory, is easily disrupted by emotions such as anxiety or shame. Many other examples could be cited. Research indicates that when afraid: infants reduce exploratory behavior (see Kobak, 1999), adults reduce achievement striving (Birney, Burdick, & Teevan, 1969), and rats reduce eating (e.g., when a predator may be present; Fanselow & Lester, 1988). Although mild sadness may facilitate eating and socializing, intense sadness (as in grief or a major depressive episode) more often results in loss of appetite, loss of libido, a reduction in socializing, and loss of interest in activities formerly pursued (American Psychiatric Association, 2000; World Health Organization, 2007). Frustration caused by preventing children from playing with attractive toys was observed to lead to aggressive play which destroyed the very toys that had been sought (Klein, 1982, discussing the findings of Barker, Dembo, & Lewin, 1941). Even positive emotions such as joy, which can increase eating,

sexual behavior, and social motivation, may reduce *sustained* pursuit of any of these or other specific motives, replacing it with “free activation” (Frijda, 1986), which involves increased distractibility (as in manic episodes, which are typically characterized by elevated mood; see American Psychiatric Association, 2000) and responsiveness to whatever features of a stimulus situation seem likely to sustain good mood or reward (Isen, 2000; Roseman, Swartz, Newman, & Nichols, 2007).

Note that the primary contention here is that emotions preempt *pursuit* of nonemotional motivations, rather than eliminating those motivations. But I am not suggesting that emotions result in an absence of goal pursuit. Instead I will argue below that each emotion engenders its own (emotion-specific) motivation, which tends to take precedence over nonemotional motivations, such as those listed in Table 20.1. Nor do emotions of *any* strength preempt all nonemotional motivation, as shown by instances in which emotions are regulated in order to achieve social, sexual, or achievement goals (see Gross, 1999). Rather, it may be proposed that emotions tend to preempt nonemotional motivations of comparable (or lesser) strength.

RELATIONSHIPS BETWEEN MOTIVATIONS AND EMOTIONS

At the influential Loyola Symposium on Feelings and Emotions, Leeper (1970) proposed that motives are related to emotions in two ways. First, emotions are perceptions of what a person “regards as the most significant realities in his life” (p. 164). This suggests that emotions *result* in part from motives.

Many contemporary emotion theorists make similar claims. For example, I have proposed (Roseman, 1984, 2001) that positive and negative emotions are produced by perceptions about the consistency versus inconsistency of situations with a person’s current motives. Scherer (1984, 2001) views positive versus negative emotions as produced by goal-conductive versus goal-obstructive evaluations, as well as by intrinsically pleasant and unpleasant events. Frijda (1986, 2007) regards emotions as responses to match and mismatch of events with an individual’s “concerns.” Lazarus (1991, 2001) viewed emotions as arising in part from appraisals of goal-congruence versus incongruence; the dimension is “motivational congruence” in Smith and Kirby’s (2001) theory.

Research supporting this claim indicates that emotions indeed result in part from motives: an emotion is caused by having some motive (goal, preference, etc.), and perceiving that a stimulus or event has implications for attainment of that motive (e.g., Roseman, 1991; Roseman & Evdokas, 2004; van Reekum et al., 2004).

Second, according to Leeper, emotions *are* motives. That is, emotions motivate behavior, giving it energy and direction. This perspective is explicitly or implicitly endorsed by a number of motivation theorists (e.g., Brown, 1961; Murray, 1938; Weiner, 1985) and most emotion theorists (e.g., Frijda, 1986; Izard, 1991; Lazarus, 1991; Plutchik, 1980). But many of the latter see emotions as causes of behavior, rather than as motivators which establish goals to guide action. This fits with the view, discussed above, that emotions prompt impulsive behavior rather than planful instrumental action.

However, there is reason to believe that emotional processes can also engender goals that guide behavior, just as do hunger, thirst, need for achievement, and other motivations. For example, fear may motivate a person to engage in a variety of behaviors (e.g., freezing, hiding, fleeing, calling for help, and defensive aggression) that move the person away from some danger and toward safety (cf. Plutchik, 1980). Anger may motivate a person to engage in a variety of aggressive actions (behaviors intended to hurt someone), such as hitting, criticizing, taunting, thwarting, giving the silent treatment, and so forth (Berkowitz, 1999; Underwood, 2003). Love may motivate a person to engage in a variety of behaviors that increase interpersonal closeness, such as physical proximity maintenance, caregiving, and initiating sexual contact (Shaver, Morgan, & Wu, 1996). In accord with this view, research participants recalling experiences of: fear, say that they wanted to get to safety; anger, say that they wanted to hurt someone; and love, say that they wanted to be close to someone—more than do participants recalling experiences of other emotions (Roseman et al., 1994, 2007). Indeed, unless we recognize that emotions involve action toward a goal, it is difficult to adequately understand (a) what the different behaviors that may be enacted when feeling a particular emotion have in common (e.g., in anger, yelling at someone and giving the silent treatment may have extremely different surface properties but serve the same goal—hurting the target in some way, for example, making the target feel bad) and (b) sequences of emotional behaviors, in which one behavior (e.g., the silent treatment) fails to attain an emotion’s goal (making the target feel bad) and is then replaced by another behavior (e.g., criticizing or thwarting).

Thus I am proposing (cf. Roseman et al., 1994) that emotional behavior is organized at two levels: the level of action readiness patterns, in which particular emotions are linked to particular actions (given particular stimulus conditions); and the level of emotivational goals, in which particular emotions are linked to emotion-specific goals (which can organize a wider variety of behaviors aiming to achieve those goals).

FUNCTIONS OF MOTIVATIONS AND EMOTIONS

Why might an organism have two systems—motivational and emotional—for energizing and directing behavior? I suggested above that motivational processes are often more deliberative than emotions, selecting among alternative actions those that are relatively likely to increase motive attainment in light of situational conditions and outcome expectancies; whereas emotional processes are often more impulsive, involving greater reliance on relatively prespecified, evolution-tested patterns of action readiness. Behavior organized by emotivational goals occupies a middle ground: an emotion urges the adoption of its more general emotion-related goal (e.g., hurting another person, when feeling anger) instead of a more specific motivational goal (e.g., gaining approval; maintaining a friendship), but there is flexibility in selecting the particular actions that aim to achieve that goal (e.g., criticizing; thwarting; refusing to interact with the person).

Together with behavior that is neither motivated nor emotional, this set of processes provides organisms with multiple behavior control systems suitable for situations that differ in the need for rapid action. That is, affectively neutral states would seem to exert the least constraint on action, permitting an infinite range of behaviors that might be initiated or sorted through in a temporally unlimited manner. Motivations allow for relatively flexible action, with behaviors that can be generated or selected at least partly based on their potential to advance current goals and block antigoes. Comparatively, emotivational goals reduce flexibility in *goal* selection—decreasing response time by increasing focus on a particular general purpose goal (such as getting to safety) in place of more time-consuming processing of multiple specific purpose goals. Emotional action tendencies and readinesses further constrain the set of behaviors that are likely to be initiated, with the smaller number of action options permitting even faster response. Thus the motivation system allows for relatively flexible behavior when conditions permit, and the emotion system allows for more preprogrammed behavior when faster action is needed.

This formulation fits conceptions of emotions as “emergency” responses (Cannon, 1932) or “coping mechanisms” (Lazarus & Folkman, 1984). As such, it may seem most suited to negative emotions (Fredrickson, 1998) such as fear and anger. Faced with an immediate threat, it may be vital to have in the behavioral repertoire preorganized readinesses for responses such as flight and fight to cope quickly with the crisis (see, e.g., LeDoux, 1996; Tooby & Cosmides, 1990).

But the framework can be extended to encompass positive emotions as well, if we recognize the existence

of time-limited opportunities that should be seized before they slip away (Roseman et al., 2007). One example is the appearance of another person who is appraised as having the potential to greatly enhance motive fulfillment (e.g., as a potential mate, caregiver, close friend, or other important relationship partner). The positive emotion of love (what Shaver et al., 1996, call “surge love”) may be the emotional response to such a stimulus, involving readiness for behaviors that form, maintain, and strengthen relationships.

Similarly if the emotion of pride is a response to positive outcomes caused by the self (Roseman, 1991; Stipek, 1995) and engenders readiness for culturally syntonic self-display and self-assertion, it may serve to seize an opportunity (for acquiring social standing, dominance, resources, etc.) at a moment in time when those behaviors are most likely to meet with success, insofar as other people can see or be shown evidence of the self-caused positive outcomes (Roseman et al., 2007).

Overall, then, positive and negative emotions provide ways for organisms to seize opportunities and cope with crises, by engendering time-tested patterns of action readiness when there may not be time to more deliberatively consider the relative advantages, disadvantages, and potential consequences of particular behaviors or behavior alternatives.

Determinants of Motivated and Emotional Behavior

What factors influence whether action is governed primarily by nonaffective processes, by motivations, by emotivational goals, or by emotional action tendencies? As shown in Table 20.2, two possible determinants are *motive-relevance* and *actual or potential change in motive-relevance* perceived in a situation.

According to Table 20.2, if a situation lacks relevance to all active motives—for example, because no motives are active at a given time, or the person perceives that action would have no impact on progress toward active goals or preferences (cf. Bandura, 1997)—behavior would be neither motivated nor emotional. Behavior may nonetheless occur (organisms may be active even when not motivated or emotional), but it would lack goal-directedness, persistence, and felt compulsion to act. In contrast, in situations perceived as relevant to active motives, behavior may be under motivational control—flexibly directed toward wanted states or activities and away from unwanted ones. However, insofar as situations are not just motive-relevant, but involve actual or potential *changes* in motive-relevant events, emotion(s) may be generated (and the larger the changes, the more intense the emotions). If the changes are relatively large, emotions (joy, fear, anger, etc.) are likely to be relatively intense (as compared to

TABLE 20.2
Some Determinants of Behavior Control by Nonaffective and Affective Processes

Eliciting Condition	Processes Governing Behavior
Lack of relevance to active motives (e.g., no active motives or no possible effect on active motives)	Nonaffective (e.g., situational or cognitive) determinants
Motive-relevance (not unmodifiable match or mismatch with actively wanted or unwanted states or activities)	Motivational goals and preferences
Relatively large actual or potential change in motive-relevant events	Emotivational goals
Very large actual or potential change in motive-relevant events	Emotional readinesses and action tendencies

Note: As discussed by Izard (2000), the term *affect* is used by some psychologists to refer only to emotions, and by other psychologists to encompass both motivations and emotions. It is used here in the latter sense. This table does not attempt to list all determinants of motivational and emotional processes, but focuses instead on hypothesized differential determinants (e.g., it omits the importance and the imminence of desired and undesired states, which appear to influence the intensity of both motivation and emotion).

motives such as hunger, sex, need for achievement, etc.), and emotivational goals (e.g., sustaining a situation in joy, getting to safety in fear, getting revenge in anger) would increasingly come to govern action in place of the original motivational goals and preferences (which may remain active, but become increasingly subordinate as emotions get more and more intense). If changes in motive-relevant events are very large, emotion intensity would increase still further and the flexible pursuit of emotivational goals increasingly give way to behavior dominated by emotion-specific action readinesses and tendencies.

As an example, consider a student taking a college course. If the course lacks relevance to the student's current motives, she would be neither motivated nor emotional about her course performance (but may still take the course, e.g., because instructed to do so, or in accord with familial models or scripts). If the course is perceived as motive-relevant (e.g., to a desire to progress, or do well, or not do poorly) but relatively little actual or potential change in a motive-relevant outcome is envisioned, the student's behavior would be motivated (show persistent, goal-directed effort, e.g., in reading course material) but not particularly emotional. If a relatively large change from prior or expected outcome is imagined or perceived (e.g., a final exam is announced, and the student thinks about the prospect of doing significantly better or significantly worse than she otherwise might do), she would have an emotional response (e.g., hope or fear), and her behavior would be correspondingly guided by the emotivational goal of her emotion (e.g., making the envisioned outcome happen, or getting to safety) to the relative exclusion of other goals (either emotivational goal could be pursued by focused studying or by other means, such as seeking assistance or engaging in self-handicapping). If a

great change is envisioned, our student may feel intense emotion (e.g., hope or fear) and her behavior may be dominated by the action readinesses or tendencies of her emotion (e.g., in hope, eager anticipation, such as fantasies of success and its sequelae, and excited, preoccupied waiting or approach behavior; in fear, tense vigilance, such as watching out for and thinking about the potential for failure, and aroused passive or active avoidance behavior, e.g., periods of paralysis, thoughts of bailing out, and frantic studying or dropping the course).

The theory just outlined posits an adaptive matching between the conditions requiring organismic response (the degree of actual or potential change in motive-relevant events) and the functional characteristics of the behavior control system mobilized to govern action (in particular, the latencies of response that are characteristic of the different systems). As the immediate implications for active motives increase in magnitude, one moves from nonaffective to motivational to emotivational to emotional behavior, and action becomes more and more focused and constrained. The fewer the behavioral options generated, the smaller the need for cognitive involvement in selecting among options, and thus the more rapid a response can be.

A number of other theorists have suggested that change or rate of change is a key determinant of emotion activation or intensity. For example, Frijda (1988, 2007) posits a Law of Change: "Emotions are elicited not so much by the presence of favorable or unfavorable conditions but by actual or expected changes in favorable or unfavorable conditions" (Frijda, 2007, p. 10), and contends that the greater the change, the stronger the subsequent emotion. Carver and Scheier (e.g., 1998) have proposed that emotion is generated by the rate of progress toward goals

or away from antagoals, in comparison to a desired rate; larger differences from this “reference rate” are held to produce more intense emotions.

In comparison, motivational processes may not require change, or any particular degree or threshold amount of change. For example, hunger may be generated when glucose or fatty acids in the blood are below target levels, or when ghrelin levels are high; and thirst when blood flow to the heart or kidneys is too low (Carlson, 2007). These hunger- and thirst-generating mechanisms appear to be at least partly dependent on levels rather than changes in the monitored substances, as it is possible to be chronically hungry or thirsty. For example, patients with Prader–Willi Syndrome have chronically high levels of ghrelin and continual hunger (DelParigi et al., 2002). Similarly, achievement striving and persistence may be engendered by dispositionally high competence perceptions and mastery or “performance-approach” goals (Elliot, 1997).

However, motivational processes may also be affected by change, as when hunger is triggered by the smell of food (Carlson, 2007), thirst by changes in osmotic pressure (Liedtke et al., 2000), and achievement motivation by perceived progress toward goals (Schunk, 2003). Yet consistent with the hypothesized influence of change on emotion, it is possible that significant or large changes in degree of fulfillment of these motives simultaneously generate emotions such as excitement (Tomkins, 1979), distress (Brunner, 1993), or joy (Summerfield & Green, 1986).

Alternative Determinants

It is also possible that, contrary to Table 20.2, change is not required for emotion initiation, and that the key determinant of emotional dominance over motivation is *degree of match or mismatch* with current goals or antagoals, which is then reflected in emotion intensity. As Frijda (1988, 2007) observes, many instances in which an absence of change reduces emotional intensity may be cases of habituation or “adaptation,” (Helson, 1964) in which desires or expectations shift as a function of current state (e.g., we get used to an increased salary and set our sights higher; thus we cease to be happy not because change is required for happiness, but because a new level of aspiration makes our current state no longer match what we desire). Frijda also notes some cases—all of negative emotions, which leads him to posit a Law of Hedonic Asymmetry—in which it seems that people do *not* adapt but rather feel continued or increasing negative affect in response to unchanging aversive states. Among the examples given are irritations, such as noise (Frederick & Loewenstein, 1999), and chronic intractable pain.

One could come up with explanations for these apparent exceptions to the Law of Change: the cited studies examined intermittent rather than constant noise, perhaps preventing adaptation; over time one might increasingly want either noise or chronic pain to cease, thus accounting for intensification; and, as Frederick and Loewenstein (1999) point out, in degenerative diseases, chronic pain worsens over time, reducing adaptation. But it may also be possible to explain apparent change or rate of change effects as special cases of match or mismatch with a positive or negative reference state. For example, in Carver and Scheier’s (1998) theory, people are said to have a desired rate of change. Perhaps that rate should be taken as their goal—the frame of reference from which degree of goal match and mismatch should be calculated.

Suppose that as the size of match or mismatch with reference states increases, emotions increase faster in intensity than do motivations. If so, as the size of match or mismatch grows, behavior might come first under increasing control of motivations, then emotivational goals, and then emotional action readinesses and tendencies. If this were the case, greater match or mismatch with reference states might be what produces increasingly constrained behavior, and the functional rationale would be that greater match or mismatch makes faster action advantageous (in order to more quickly respond to states that are more undesired or desired).

WHY INCORPORATE BOTH MOTIVATIONS AND EMOTIONS INTO THEORIES OF BEHAVIOR?

If motivations and emotions have significant similarities, and both provide energy and direction to behavior, why should both constructs be included in our theories? In accord with the above discussion, one answer to this question is that motivations and emotions also seem to have different empirically observable characteristic properties (narrow vs. broad initiating conditions, relatively deliberative vs. impulsive influence on behavior, and subordinate vs. preemptive tendencies).

There may be other distinguishing characteristics as well. For example, a number of emotions seem to have expressive properties that most motivations lack, such as distinctive pan-cultural facial displays (Darwin, 1872/1965; Ekman, 1999; Izard, 1971), vocal patterns (Scherer, Johnstone, & Klasmeyer, 2003), and postures (Darwin, 1872/1965; Tracy & Robins, 2004). By signaling an organism’s emotional state, and readiness for emotional behaviors such as attack (e.g., in anger), flight (e.g., in fear), submission (e.g., in shame), and assertion (e.g., in

pride), emotional expressions may serve as preprogrammed *social coping* mechanisms which rapidly and relatively effortlessly help individual organisms (Levenson, 1999), and groups or species of organisms (Keltner & Haidt, 1999), deal with opportunities and crises by exerting influence on other organisms. For example, expressions of anger may serve as threat displays that deter conspecifics—and sometimes other species—from a course of action (see, e.g., Fessler, 2006). Postural expressions of fear may elicit fear in conspecifics, facilitating flight (de Gelder, Snyder, Greve, Gerard, & Hadjikhani, 2004). Such rapid, effortless signaling may be more important under the conditions of significant change held to generate emotions, than under the less potentially urgent circumstances that generate motivational processes.

The primary brain circuitry of motivations and emotions may also differ. For example, Berridge and his colleagues (e.g., Berridge, 2004) distinguish motivational “wanting” sites in the nucleus accumbens (which are dopaminergic and influence working for food) from emotional “liking” sites in particular areas of the accumbens shell and ventral pallidum (which respond to opioids and influence facial responses to pleasant tastes).

In short, both motivations and emotions are needed to adequately describe and explain behavior. Motivation constructs (along with either expectancies, or comparisons of existing and potential states to reference states) are needed to describe and account for much behavior that occurs under normal circumstances: behavior that is goal-directed, persistent, and tailored to specific situations. Emotion constructs are needed to describe and account for the relatively impulsive deployment of a limited number of general purpose strategies and responses that have evolved (along with quick appraisals of basic cross-situational dimensions that nondeliberatively predict which emotion strategies are likely to be most successful in which types of situations) to deal with crises and potentially time-limited opportunities.

To return to our earlier example, motivational constructs (such as need for achievement or competence motivation) are needed to adequately explain why some college students devote persistent daily effort to attending lectures and reading and studying course material (despite fatigue, obstacles to comprehension, the easy availability of sensory and social pleasures, etc.). Emotional constructs (such as hope, fear, and guilt) are needed to adequately explain why various equally motivated students respond to an impending final exam with not only studying but also eagerness, anticipatory fantasies, and excited effort; or tense watching out for signs of approaching failure and periods of paralysis; or ruminative self-reproach.

In arguing for inclusion of both motivation and emotion in models of behavior, I am not alone. For example, all theories claiming that emotions result from appraisals of events in terms of motives, goals, or concerns (e.g., Carver & Scheier, 1998; Frijda, 1986; Lazarus, 1991; Roseman, 2001; Scherer, 2001; Smith & Kirby, 2001) implicitly if not explicitly encompass both types of variables. So do all theories which regard emotions as a distinct subtype or manifestation of motivations, or attempt to distinguish their properties (e.g., Buck, 1985; Tomkins, 1970). But fewer theories attempt to encompass both motivations and emotions as distinct yet roughly coequal determinants of action, and that is what is being advocated here.

TWO TYPES OF MOTIVATION AND EMOTIONS

TWO TYPES OF MOTIVATION

In the introductory chapter of this volume, Elliot traces the history of a distinction between approach and avoidance motivations for over two thousand years (see also Elliot, 1999). As Elliot shows, some version of the distinction can be found in descriptive and prescriptive philosophical accounts of human action, and is present in very many theories proposed by psychologists. The contributions to this volume reflect the continuing relevance of the distinction across many subfields of psychology.

Elliot’s introductory chapter also discusses alternative conceptualizations of the approach versus avoidance distinction, including the terms appetitive versus motivation relevant to aversive, which he regards as covering roughly the same conceptual ground. In my model of emotion-eliciting appraisals (Roseman, 1984), I have used the latter distinction to refer to motivation relevant to states-to-be-attained versus states-to-be-prevented. The term “appetitive” was meant to incorporate the seeking aspect of appetitive behavior (to approach or maximize some states), without necessarily limiting what is sought to objects, such as food, which would subsequently be consumed or engaged with in a consummatory manner (Craig, 1918; cf. Lang, 1995). “Aversive” refers to motivations that avoid or minimize other states. In our empirical research, the meaning has best been captured by distinguishing between wanting to “get or keep” versus “get rid of or avoid” something (Roseman, Antoniou, & Jose, 1996). This phrasing indicates that the positive and negative reference states which guide motivated behavior may or may not be currently present in a situation.

TWO TYPES OF EMOTIONS (WHEN EMOTIONS ARE MOTIVATIONS)

In emotion theory and research, positive versus negative emotion is a perpetual and central theme (Tolman, 1923; Tomkins, 1962, 1963; Watson & Tellegen, 1985). Although some theorists have challenged the classification of emotions into positive and negative groups or question the basis for the classification (Kristjánsson, 2003; Solomon & Stone, 2002), most analyses recognize positive versus negative emotion as a fundamental and important distinction.

While emotions may be categorized as positive versus negative according to their putative adaptive value (e.g., healthful vs. harmful, as discussed by Solomon & Stone, 2002), or people's attitude toward emotions (approving vs. disapproving of their experience or expression; see, e.g., Tsai, Knutson, & Fung, 2006), the most widely recognized version of the distinction is in terms of subjective feeling quality (e.g., Barrett, Mesquita, Ochsner, & Gross, 2007; Wundt, 1904). Emotions such as joy, love, and pride feel pleasant, and emotions such as sadness, fear, and shame feel unpleasant.

This division is immediately apparent when research participants are asked to sort emotions into groups (Shaver, Schwartz, Kirson, & O'Connor, 1987), or make similarity judgments among emotion words (Russell, 1980) or faces (Abelson & Sermat, 1962). It is also apparent when participants rate the emotions of others (Roseman, 1991) or their own ongoing experience of emotions (Barrett, 2006b). Positive emotions tend to covary, at least to some extent; so do negative emotions.

The hedonic quality of positive versus negative emotions enables them to also serve as motives—people may behave to experience more of positive emotions generally (Tomkins, 1987), or particular positive emotions such as joy, love, or pride (e.g., Atkinson, 1964; Tennyson, 1979), or less of negative emotions generally (Taylor, 1991; Tomkins, 1987), or particular negative emotions such as panic, disappointment, or regret (Barlow, 1988; van Dijk, Zeelenberg, & van der Pligt, 2003; Zeelenberg, Beattie, van der Pligt, & de Vries, 1996).

WHAT IS APPROACHED OR AVOIDED IN MOTIVATED AND EMOTIONAL BEHAVIOR?

How should we characterize that which people want to get or keep in appetitive (approach) motivation and get rid of or avoid in aversive (avoidance) motivation? Although some theories have focused primarily on the maximization of positive emotions and minimization of negative emotions (e.g., Tomkins, 1970, claimed that nonemotional motives

require emotional “amplification” to affect behavior), it does not seem that emotions are in fact the only motivators. Nor must pleasure and pain be involved in motivating action. At least at low to moderate levels of motive intensity, people seem to regulate many different processes or parameters (e.g., perceptual constancies, speech production, self-verification), at least somewhat independently of the happiness or sadness, or pleasure or pain, it makes them feel. To give another example: people seek accurate understanding not just because it makes them feel joy, or pleasure, or even competence, but seemingly for its own sake (Chaiken, Liberman, & Eagly, 1989; Heider, 1958). We also seek to categorize stimuli, to evaluate stimuli, and to correct for bias, often without conscious awareness (Glaser & Kihlstrom, 2005; Petty & Wegener, 1993).

To encompass a very wide variety of approached versus avoided states and activities, it would seem that a very general formulation of the regulated entities must be offered. One candidate is rewards versus punishments (Gray, 1987; Gray & McNaughton, 2000). A possible advantage of this conceptualization is its potential linkage to distinct brain systems, such as those that mediate appetitive versus aversive information processing, (e.g., nucleus accumbens, ventral pallidum, and paraventricular nucleus of the hypothalamus vs. central amygdala and bed nucleus of the stria terminalis, as described by Cacioppo, Larsen, Smith, & Berntson, 2004).

WHY HAVE TWO TYPES OF MOTIVATION AND EMOTIONS?

The existence of appetitive versus aversive motivational systems and positive versus negative emotions may provide an important mechanism for prioritizing action. At comparable levels of affective strength, higher priority may be given to aversive (avoidance) motives and negative emotions as compared with appetitive (approach) motives and positive emotions (cf. Carver, 2003; Maslow, 1955). Indeed there is considerable evidence of such prioritization (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Taylor, 1991). For example, as discussed by Baumeister et al. (2001), most people (83%, according to a study of wagering by Atthowe, 1960) try harder to avoid losses than to obtain comparable gains (see also Kahneman & Tversky, 1984); the effects of punishment and negative reinforcers on behavior are generally stronger than the effects of reward and comparable positive reinforcers (Constantini & Hoving, 1973); and people report more often trying to get out of bad moods than to get into or prolong good moods (Baumeister, Heatherton, & Tice, 1994).

Moreover, differentiation of importance or urgency may provide a functional explanation for the evolution of two motivational systems, and the assignment of particular regulated parameters to one system or the other in the process of natural selection. For example, sexual motivation seems predominantly to involve appetitive motivation and pleasure seeking (e.g., van Furth, Wolterink, & van Ree, 1995); and though people may seek to eat particular foods in order to get pleasant tastes, eating as a response to prolonged food deprivation involves aversive motivation (reduction of unpleasant feelings of hunger; see Ashton, 2002). Perhaps this is because reproduction, while ultimately essential for the continuation of the species, is less time urgent than satisfying basic nutritional needs. Similarly, the need to cope with crises that is signaled by negative emotion seems more urgent than the need to seize opportunities that is signaled by positive emotions. As Elliot (2006) put it, avoidance goals are concerned with survival, and approach goals with thriving. Or to state it another way, if one doesn't reproduce or seize an opportunity today, one can try again tomorrow; but if one doesn't survive today, there will be no further opportunities (cf. Baumeister et al., 2001, p. 358).

Note that the "bad is stronger than good" principle (Baumeister et al., 2001) does not itself require two different systems of motivation or emotion. Organisms could have only approach (appetitive) goals, and respond with higher priority to departures from the goals than to progress toward them. More attention and effort could be mobilized toward avoiding losses than achieving gains, and to minimizing losses that occurred (Taylor, 1991), even if the gains and losses were only of desired objects or states. Instead, the existence of two motivational systems (with favorable and unfavorable outcomes possible in each) suggests some nonredundant functions, such as a more differentiated prioritization or action control system. I will consider further the utility of having four possible outcomes (improvement or worsening with respect to approach or avoidance motivation) in discussing motivation-linked emotions, below.

DISCRETE EMOTIONS: BEYOND TWO TYPES

There Is More to Emotions Than Positive and Negative

Most theories of emotion, from ancient (Aristotle, 1966/350 BC; Galen [see Irwin, 1947]) to classical (Descartes, 1649/1968, Spinoza, 1677/2000) to modern (Izard, 1991; Oatley & Johnson-Laird, 1987; Plutchik,

1980; Tomkins, 1962, 1963), including theories and taxonomies generated in other cultures (Hejmadi, Davidson, & Rozin, 2000; Romney, Moore, & Rusch, 1997), maintain that there are more varieties of emotion than just positive and negative. For example, Ekman (1992) argued that there are at least seven different emotions, based on evidence of pan-cultural facial displays for happiness, sadness, fear, anger, disgust, surprise, and contempt (according to Keltner, Ekman, Gonzaga, & Beer, 2003, there is now some evidence of expressions for embarrassment, shame, amusement, sympathy, and love as well). Panksepp (1998, p. 88), citing neuroanatomical and neurochemical evidence, also identified seven emotional systems: play (joy), panic, fear, rage, seeking, care, and lust. Frijda (1986, p. 88) distinguished 17 different patterns of "action readiness" and on this basis listed 17 emotions. de Rivera (1977), citing distinctive patterns of phenomenology, posited 48 emotions. Citing evidence of distinctive profiles of phenomenology, physiology, expression, action tendencies, and goals, as well as antecedent appraisals, I have proposed a system encompassing 17 emotions: 16 positive- or negative-valenced emotions, and the neutral-valenced emotion of surprise (Roseman, 2001).

There is also clearly disagreement about which states should be regarded as emotions (Ortony & Turner, 1990), although some of these can be understood as differences in terminology (e.g., what Panksepp, 1998, refers to as the "seeking" emotion system may correspond to hope in other emotion theories, e.g., Lazarus, 1991; Roseman, 2001). The more important disagreements would seem to be based in part on different definitions of emotions and thus different criteria for identifying and distinguishing between putative emotion states (e.g., phenomenological conceptualizations suggest more emotions than do universal expressive displays).

Only Degrees of Positive Versus Negative Affect and Arousal?

In recent years, James A. Russell and Lisa Feldman Barrett (Barrett, 2006a; Russell, 2003; Russell & Barrett, 1999) have led a challenge to the discrete emotion perspective, citing the variability of responses observable across instances of the same emotion, such as anger; and low correlations among the different responses proposed to constitute an emotion (e.g., subjective, physiological, facial, and behavioral responses). Russell and Barrett contend that what appear to lay persons and many emotion theorists as different emotions are really cultural or linguistic categories arbitrarily imposed on a simpler, dimensional affective reality (cf. Russell, 1980; Russell & Mehrabian, 1977). They claim that joy, sadness, fear,

anger, and so forth correspond principally to particular combinations of valence and arousal.

In my view, some variability in responses across instances of an emotion and relatively low correlations among different emotion components are empirical realities (see, e.g., Cacioppo, Berntson, Larsen, Poehlmann, & Ito, 2000). But there are good reasons to expect such variability, and ways to explain it systematically. (a) As discussed above, at least when emotion intensity is not extremely high, motivational goals may tailor emotional behavior toward responses seen as effective in specific situations (e.g., in fear, seeking safety by concealment or by calling for help). (b) Emotion regulation may alter or control emotions or their individual component responses (as when people suppress anger or mask facial displays of disgust to conform to social norms; see, e.g., Ekman, 1972; Gross, Richards, & John, 2006). (c) Other nonemotional processes may compete with emotions to influence physiology, expression, behavior, and phenomenology. For example, depending on the situation one was in, talking could alter facial expression; task demands (e.g., filling out a questionnaire vs. running on a treadmill) would affect heart rate and blood pressure; and nonemotional motives (such as keeping a job, or caring for an interaction partner) could constrain or shape behavior (e.g., the likelihood and form of angry attack).

The critique of discrete emotions is also empirically inadequate because it fails to account for relationships between particular emotions and particular responses that do exist. For example, Russell (2003) and Barrett (2006a) simply do not explain why the same facial and vocal expressions (e.g., smiling and laughter with happiness, downturned lips and weeping with sadness) would be associated with the same emotion concepts and similar eliciting conditions (e.g., reunions vs. separation from loved others) across all human cultures (Boucher & Brandt, 1981; Ekman, 1972; Izard, 1971; Keltner et al., 2003); or why such expressions are found in children born blind or even blind, deaf, and retarded (e.g., Charlesworth, 1970; Dumas, 1932; Eibl-Eibesfeldt, 1970, 1972; Mistschenka, 1933; as reviewed in Collier, 1985).

Existing relationships between subjectively experienced emotions and behaviors are also not adequately explained. For example, although people do not necessarily attack when feeling angry, and can attack when feeling fear or other emotions, aggression is more likely when feeling anger than when feeling no emotion, and more likely when feeling anger than when feeling other emotions, such as happiness, sadness, fear, surprise, or love (Berkowitz, 1999; Consedine, Strongman, & Magai, 2003; Roseman et al., 1994; Scherer & Wallbott, 1994).

Similarly, freezing is more likely when feeling fear than when feeling anger, sadness, joy, disgust, or other emotions (Bracha, 2004; Gray & McNaughton, 2000).

Nor can the various emotions differentiated by discrete emotions theorists and researchers be adequately accounted for simply by combinations of valence and arousal. Fear and anger, both high arousal negative emotions in dimensional accounts, differ significantly in characteristic facial expression (e.g., brows raised, lips stretched vs. brows lowered and squarish lips), physiology (e.g., pallor vs. flushing), behavior (as just described), and subsequent effects (see, e.g., Demaree, Everhart, Youngstrom, & Harrison, 2005; Ekman & Friesen, 1975; Lerner & Keltner, 2000; Mackie, Devos, & Smith, 2000).

As discussed above, the valence of emotions is an important dimension of variation. This hedonic characteristic divides emotions into positive versus negative groups which then have in common that they are sought versus avoided. But though there may be few cases of invariance, there are many documented significant relationships between particular emotions and particular emotional responses. Neither a two-group analysis of emotions (positive vs. negative) nor a two-dimensional model is sufficient to account for them.

SPECIFYING EMOTION RESPONSE SYNDROMES AND STRATEGIES

Based in part on prior emotion theories and empirical studies (e.g., Davitz, 1969; Izard, 1977), my students, colleagues, and I have developed many specific hypotheses about relationships between particular emotions and particular phenomenology, behaviors, and motivational goals; and have conducted four studies to test these a priori hypotheses (Fischer & Roseman, 2007; Roseman, 2002; Roseman et al., 1994; Roseman et al., 2007). The studies ask participants to recall intense experiences of particular emotions, and answer questions about what they thought, felt, felt like doing, actually did, and wanted in the experiences that they described. Some results are shown in Table 20.3.

In these studies we found some responses that differentiated each of the 17 emotions in the model of the emotion system that I have proposed (Roseman, 2001). A number of these relationships have also been found in studies by other investigators (e.g., Consedine et al., 2003; Scherer & Wallbott, 1994; Shaver et al., 1987; see Roseman et al., 1994, 2007, for examples).

Perhaps most relevant to the present chapter was the support found for specific motivational goals for many emotions (e.g., in joy, wanting to make an experience last

TABLE 20.3
Some Responses Found to Differentiate Particular Emotions as Predicted

Emotion	Responses
Surprise	Feel yourself breathe in suddenly Think that what was happening was unexpected Remain motionless Want to figure out what was going on
Hope	Think that you could be optimistic about the future Feel like planning for the future ^a Want to approach something Want what you were thinking of to happen
Joy	Feel a sense of lightness in your movements Feel like jumping up and down Celebrate Want to make the experience last longer
Relief	Feel tension leaving your body Think that the worst was over Rest Want to get on to something else
Affection	Feel warm all over Think that you belonged with someone Feel like holding someone Want to be close to someone
Pride	Feel more powerful Think that you had accomplished something Assert yourself Want to seek recognition
Fear	Feel your heart pounding Think of how bad things could get Feel like running away Want to get to a safe place
Sadness	Feel a lump in your throat Think about what you were missing Feel like doing nothing Want to be comforted
Distress	Think that you did not know what to do to make things less upsetting Feel like moving away from something
Frustration	Feel impatient Think about an obstacle that was in your way Want to overcome some obstacle
Disgust	Think that something was offensive Wrinkle your nose
(Interpersonal) Dislike	Think of something in another person that you didn't want to be around Feel like avoiding interactions with someone

(Continued)

TABLE 20.3 (continued)
Some Responses Found to Differentiate Particular Emotions as Predicted

Emotion	Responses
Anger	Minimize your contact with someone
	Want to be far away from someone
	Feel ready to explode
	Criticize the other person
Contempt	Want to hurt someone
	Feel revolted by another person
	Think that someone was unworthy of respect
	Feel like saying something unflattering about another person
Regret	Want another person to be rejected by your group
	Think of what a mistake you made
	Feel like correcting your mistake
Guilt	Think that you were in the wrong
	Feel like offering an apology
	Scold yourself for something
	Want to make up for what you did wrong
Shame	Feel small
	Feel like hiding your face
	Blush

Note: Based on data from Fischer and Roseman (2007); Roseman (2002), Roseman et al. (2007); Roseman et al. (1994).

^a Response was only marginally different from other emotions tested.

longer; in fear, wanting to get to safety; in anger, wanting to hurt someone; in love, wanting to be close to someone). These findings indicate that there is more to emotions than approach and avoidance (or appetitive and aversive) goals. Rather, it seems that a component of each emotion is a distinctive goal (or goals) that people feeling the emotion want to pursue. Indeed people may seek to pursue motivational goals even if they are not aware of their emotion (e.g., wanting to hurt someone even though one is not aware of being angry) or not aware of the goal itself (see Carver, Ganellen, Froming, & Chambers, 1983).

Hypothesized phenomenological, expressive, behavioral, and motivational responses for each emotion in the proposed model are shown in the boxes in Figure 20.1. Proceeding outward, from an emotion box to its borders around the chart, shows the combinations of appraisals proposed to elicit each of the emotions (see Roseman, 2001, for a full discussion).

Examination of the emotion syndromes shown in Figure 20.1 suggests they are not made up of unrelated responses that just happen to be part of one emotion rather

than another. Instead, the various responses characteristic of a particular emotion seem related to and supportive of each other, forming a “package” of responses (Keltner et al., 2003) that constitutes a “strategy” for coping with a particular type of situation (cf. Lazarus, 1991).

Like “reproductive strategies,” emotion strategies are not consciously formulated and pursued by individuals, but are organizing principles of emotional response likely to have been shaped by evolution. For example, as shown in Figure 20.1, in response to unexpectedness (Reisenzein, 2000), the emotion of surprise implements a response strategy of suspending action and processing information in order to adjust to the disconfirmed expectancy. Proposed strategies for other emotions are shown in angle brackets at the bottom of each box in the chart.

EMOTION FAMILIES

Below surprise, the strategies of the other emotions shown in Figure 20.1 form four main groups or “emotion families.” Each family contains distinct but related

		Positive emotions		Negative emotions				
		Motive-consistent		Motive-inconsistent				
		Appetitive motive	Aversive motive	Appetitive motive	Aversive motive			
(Circumstance-caused)	## Unexpected	<p>Surprise PHE: unexpectedness; stunned EXP: brows raised, arched; eyes wide; mouth open, oval; gasp BEH: interrupt, take in information EMV: understand <suspend movement></p>						
	## Not unexpected	<p>Hope PHE: potential; eager EXP: brows raised, eyes widened, focused BEH: anticipate, approach EMV: get closer, make happen <prepare to move toward or to stop moving away from it></p>		<p>Fear PHE: danger; cold, heart pounding EXP: brows raised, straight; eyes wide, lips drawn back BEH: vigilance, inhibition or flight (run) EMV: get to safety, prevent <prepare to move away from or to stop moving toward it></p>			Low control potential	
	Uncertain							
	Certain	<p>Joy PHE: attainment; vivid, light EXP: smile BEH: jump (move), act (do) EMV: sustain <move toward it></p>	<p>Relief PHE: amelioration; calming EXP: exhalation, sigh BEH: rest, relax EMV: return to normal <stop moving away from it></p>	<p>Sadness PHE: missing; lethargy, throat lump EXP: weep BEH: inaction EMV: recover <stop moving toward it></p>	<p>Distress PHE: harm; agitated EXP: cry out BEH: move away, leave EMV: terminate, get out <move away from it></p>			
	Uncertain	<p>Hope</p>		<p>Frustration PHE: obstacle; tense EXP: brows lowered BEH: exert effort EMV: overcome <move against it></p>		<p>Disgust PHE: repulsiveness; nausea EXP: wrinkled nose BEH: vomit EMV: expel, remove <move it away from you></p>		High control potential
	Certain	<p>Joy</p>	<p>Relief</p>					
Other-caused	Uncertain			<p>Dislike PHE: disapproval; cool EXP: refuse eye contact BEH: decrease attention to EMV: dissociate <move away from other></p>				Low control potential
	Certain	<p>Love PHE: appreciation; warm, drawn to someone EXP: sustained relaxed eye contact BEH: touch, hold EMV: attach <move toward other></p>						
	Uncertain			<p>Anger PHE: injustice; explosive EXP: brows lowered, teeth bared BEH: hit, criticize EMV: hurt <move against other></p>	<p>Contempt PHE: other unworthy; revulsion EXP: sneer BEH: look down on, reject EMV: exclude <move other away></p>		High control potential	
	Certain							
Self-caused	Uncertain			<p>Regret PHE: mistake; sick, sinking EXP: eyes closed; lips stretched, pressed together BEH: do over, do differently EMV: correct, improve <move away from self></p>				Low control potential
	Certain	<p>Pride PHE: accomplishment; big, powerful EXP: head raised, erect posture BEH: exhibit, assert EMV: recognition, dominance <move toward self></p>						
	Uncertain			<p>Guilt PHE: transgression; heavy EXP: shift gaze BEH: reproach, punish self EMV: redress <move against self></p>	<p>Shame PHE: self unworthy; small EXP: blush, avoid gaze, head low BEH: withdraw EMV: get self out of sight <move self away></p>		High control potential	
	Certain							
						Instrumental problem	Intrinsic problem	

FIGURE 20.1 Structural model of the emotion system. Emotion components: PHE = phenomenological; EXP = expressive; BEH = behavioral; EMV = motivational goal. Strategies integrating the response components for each emotion are given in angle brackets. Appraisal combinations eliciting each emotion are shown in unshaded areas around the borders of the chart. Adapted from "A model of appraisal in the emotion system: Integrating theory, research, and applications" by I. J. Roseman, in *Appraisal Processes in Emotion* (pp. 70–71) by K. R. Scherer, A. Schorr, & T. Johnstone (Eds.), 2001, New York: Oxford University Press. By permission of Oxford University Press.

strategies whose members cope either with motive-relevant events in general, or with events caused by other people, or with events caused by the self.

The five positive emotions in Figure 20.1 form a family of “contacting” emotions, which increase proximity to and/or interaction with impersonal, interpersonal, or intrapersonal stimuli. The response strategy of joy involves increased contact with rewarding stimuli via “movement toward” them, increasing interaction with them. Relief reduces “movement away” from stimuli—increasing contact via relaxation and decreased defensive responding. Hope increases contact by preparing to move toward or to stop moving away from stimuli. The preparation involves a focusing of attention, anticipation, and if possible, action to produce desired outcomes. Love moves one person toward another (or others), increasing interpersonal closeness, and forming, maintaining, or strengthening interpersonal bonds. Pride moves one toward oneself, in the sense of bringing one’s behavior closer to one’s own identity and self-conceptions, and promoting self-expression and self-assertion.

Distress, sadness, fear, interpersonal dislike, and regret form a family of “distancing” emotions, which increase distance from impersonal, interpersonal, or intrapersonal stimuli, thus reducing contact and/or interaction with them. Distress actively moves one away from stimuli. Sadness reduces movement toward them. Fear, like hope, is conceptualized as a ‘remote coping’ response, which prepares a person to move away from or to stop moving toward a stimulus. The vigilance that is characteristic of fear is the counterpart to hope’s anticipation—watching out for danger and prompting freezing and/or preparation for flight. The responses of interpersonal dislike move one away from other persons, increasing social distance, for example, by minimizing interaction and connection with them. Regret involves moving away from oneself, in the sense of distancing one’s future behavior from what one has done previously (e.g., a regretted course of action).

Disgust, contempt, and shame form a family of “rejection” emotions. Unlike the distancing emotions, which move the self away from something, rejection emotions move something away from the self. The coping strategy of disgust is to get less of something offensive by moving it out of or away from the self. In contempt, another person is moved away from the self, in a type of rejection that is specialized for interpersonal relationships. This social rejection involves looking down on someone and seeking to have the contemptible person rejected by one’s in-group and excluded from social interactions. In shame the self is moved away, hidden, withdrawn, and excluded from social interactions.

Finally, frustration, anger, and guilt constitute a family of attack emotions, which move against objects and events in general, against other persons, or against the self. The coping strategy of frustration (which in this conceptualization corresponds to what Smith & Lazarus, 1990, called the emotion of “challenge/determination”) moves against something to try to force a change in its state or behavior. It often involves an increased exertion of effort (Amsel, 1992), for example, to overcome an obstacle. In anger, effortful movement against is organized into an interpersonal attack, in which there is an attempt to get revenge, hurt the other person in some way, make the target feel bad. This type of attack is specialized to deal with other sentient beings, who can be hurt (e.g., by feeling pain, or censure, or thwarting of their goals). In guilt, one moves against the self, for example, by self-reproach or by offering an apology or reparation (incurring a social or material cost to redress a negative outcome one has caused).

MORE TO EMOTIONS THAN APPROACH AND AVOIDANCE

The existence of contacting, distancing, rejection, and attack emotion families reveals that even when emotions are grouped according to the kind of coping strategies they represent, distinguishing between approach and avoidance classes still provides an insufficient or incomplete description of emotional behavior.

Positive and negative emotions, as valenced states, are indeed themselves approached and avoided, or maximized and minimized. However in the emotion system there are at least three distinct minimization processes: distancing, rejection, and attack. Distancing emotions cope with motive-inconsistent events by accommodating to them, moving away from them. But rejection and attack emotions cope with motive-inconsistent events by contending with them (Arnold, 1960), attempting to change the environment by actively moving stimuli away from the self or by attacking them.

Why Do Emotions Prompt More Than Approach and Avoidance?

The model offered in the first part of this chapter proposed that whereas motivated behavior may be generated by any degree of match or mismatch between a current situation and an actively wanted or unwanted state, emotional behavior is elicited by significant *changes* in such match or mismatch (or alternatively, by relatively *large* match or mismatch with reference states). Thus motivations guide behavior under relatively normal circumstances when an organism can utilize specific purpose behaviors, including behaviors acquired through

instrumental learning, to approach desired states or avoid undesired states in ways tailored to the requirements of specific situations. For human beings, in the absence of great change in motive-relevant events, there is more likely to be time to consider particular actions and alternatives, assess their expected consequences in the particular situation at hand, and select an action partly informed by such assessments. In contrast, greater changes are likely to necessitate more rapid response, and I have described emotional behavior as often less planful and deliberative, and more preprogrammed and impulsive than motivated behavior. Moreover, I have argued that emotions typically take precedence over nonemotional motives, which is functionally adaptive because of the greater urgency of their eliciting conditions.

These contrasts between motivation and emotion may provide an explanation for why there are more varieties of emotion (contacting, distancing, rejection, and attack) than varieties of motives (approach and avoidance). Specifying only that something should be done to approach or avoid particular conditions (i.e., establishing goals or antigoes to guide behavior) may be sufficient if action is not needed urgently. But in the face of the larger changes that can create crises and time-limited opportunities, the more constrained action control that is characteristic of emotion, which permits faster response, may be advantageous.

More constrained guidance of behavior would seem especially important when dealing with the motive-inconsistent events that cause negative emotions. As shown in Figure 20.1, the *distancing emotions* (fear, sadness, distress, interpersonal dislike, regret) accommodate to stimuli (moving away, increasing distance from them) in situations appraised as low in control potential. Being constrained to move away is relatively likely to be helpful in such situations, reducing negative outcomes while conserving resources. If instead, an organism attempted to contend with stimuli (tried to change or get rid of them) when control potential is low, the effort is likely to be futile.

In contrast, when control potential is high, accommodating to stimuli may well result in a less than optimal adaptation. Contending with stimuli (e.g., getting rid of something rather than getting used to it; changing a person's behavior rather than avoiding the person on a continuing basis) may lead to better outcomes, especially in the medium and long term. According to Figure 20.1, the *attack emotions* (frustration, anger, and guilt) contend with motive-inconsistent stimuli by moving against them, when it is perceived that control potential is relatively high, and the problem is instrumental (a goal blockage). These are situations in which an urge to attack (a problem, another person, or the self) is most likely to be useful: the

person feeling the emotion is relatively powerful, and if the target is not intrinsically negative but merely blocking a goal, an attack may succeed in forcing some change.

However if a problem is intrinsic to an object, event, or person, attacking it cannot succeed in forcing it to change, even if the person reacting to the problem is relatively powerful. According to Figure 20.1, in such situations a *rejection emotion* (disgust, contempt, or shame) is elicited, which urges a person to move the emotion-producing stimulus away from the self. Such active rejection of a stimulus (moving it away or getting rid of it) may minimize its impact on one's outcomes and be the best one can do in this type of situation (Fischer & Roseman, 2007).

APPROACH VERSUS AVOIDANCE MOTIVATION AS A DETERMINANT OF SPECIFIC EMOTIONS

Most of the motivation-plus-cognition theories of emotion, and many other theories, implicitly or explicitly maintain that events related to *any* motive can give rise to an emotion. For example, as discussed above, many theories claim that happiness can be produced by fulfillment of any motive (hunger, thirst, sexual drive, need for achievement, etc.), fear by a threat to any motive, and anger by another person's interference with any motive.

A few theories claim that there are linkages between particular motives or types of motives and particular emotions. For example, Lazarus (1991) proposed that anger results in part from events incongruent with the goal of preserving or enhancing self- or social-esteem (a view similar to that of Aristotle, 1966/350 B.C., who claimed that anger results specifically from unjustified "slights"), guilt from incongruence with moral goals, and shame from incongruence with goals involving living up to an "ego ideal." However, other authors disagree with the motive-emotion linkages proposed by Lazarus, citing cases of anger in response to any physically or psychologically aversive event, such as pain, heat, frustration, and so forth (Berkowitz, 1998) especially if other people caused or were responsible for it (Roseman, 1991; Scherer, 1993; Smith & Kirby, 2004); and guilt in response to self-caused outcomes that may be unrelated to morality, such as going off a diet or not preparing sufficiently for an exam (Roseman, 2001; cf. Frijda, 1993).

REWARD-MAXIMIZING VERSUS PUNISHMENT-MINIMIZING MOTIVATION AS A DETERMINANT OF JOY-AND-SADNESS VERSUS RELIEF-AND-DISTRESS

I have proposed (Roseman, 2001; see Figure 20.1) that consistency and inconsistency of certain events with

reward-related versus punishment-related motives are likely to produce different emotions. The precise claims are that consistency with a reward-maximizing motive (“getting something that you want”) gives rise to joy; inconsistency with a reward-maximizing motive (not getting something that you want) gives rise to sadness; consistency with a punishment-minimizing motive (not getting something you don’t want) gives rise to relief; and inconsistency with a punishment-minimizing motive (getting something you don’t want) gives rise to distress. These hypotheses have been supported, for example, when measuring appraisals in recalled emotion experiences (Roseman et al. 1996; Roseman, Spindel, & Jose, 1990), and (for joy and relief) in research manipulating appraisals and measuring emotions (Roseman & Evdokas, 2004).

Similar proposals have been made by other theorists. In the model proposed by Higgins (e.g., 1987, 1997), having a “promotion focus” (a concern with aspirations and accomplishments) makes a person likely to experience “cheerfulness” emotions (e.g., happiness, satisfaction) if a positive outcome is present, and “dejection emotions” (e.g., disappointment, dissatisfaction, sadness) if a positive outcome is absent. In contrast, a “prevention focus” (a concern with responsibilities and safety) makes one likely to experience “quiescence” emotions (e.g., relaxed, secure) if a negative outcome is absent, and “agitation” emotions (e.g., uneasy, threatened, afraid) if a negative outcome is present.

Support for Higgins’ formulation has been obtained in a number of studies. For example, Higgins, Shah, and Friedman (1997) found that in individuals with more of a promotion orientation, congruence between the person’s actual and ideal self was associated with more cheerfulness emotions, and discrepancy between actual and ideal self was associated with more dejection emotions. In individuals with more of a prevention orientation, congruence between actual and ideal self was associated with more quiescence emotions, and discrepancy between actual and ideal self was associated with greater agitation emotions. Higgins et al. (1997) also found that inducing promotion focus led to greater change on a continuum from dejection to cheerfulness, whereas inducing prevention focus led to greater change on a continuum from agitation to quiescence.

Carver and Scheier (1998, p. 165) proposed that “discrepancy-reducing meta systems” (analogous to approach motivation) produce “elation/joy” if discrepancy reduction is occurring faster than a person’s (minimum) desired rate, and “depression” if discrepancy reduction is slower than desired. For “discrepancy-enlarging systems” (analogous to avoidance motivation), progress (away from

undesired states) that is above an individual’s standard is hypothesized to produce relief, and progress that is below standard is hypothesized to produce anxiety. Among the support cited for these relationships is a connection between the failure to attain incentives and depression, and between threat and anxiety (Ahrens & Haaga, 1993; Wickless & Kirsch, 1988; cited in Carver, 2003).

While there are differences among these three theories in formulation of the motivational distinction (reward-maximizing vs. punishment-minimizing; promotion-focus vs. prevention-focus; discrepancy-reducing vs. discrepancy-enlarging), and in the specific associated emotions (joy vs. cheerfulness vs. elation/joy; relief vs. quiescence; sadness vs. dejection vs. depression; distress vs. agitation vs. anxiety), all three posit similar relationships between approach- versus avoidance-like motivational orientations and specific emotions.

Why might such relationships exist? According to Figure 20.1, the negative emotion of distress increases distance between a person and a stimulus by moving the person away from the stimulus (i.e., via attempts to escape from the unwanted state). This active movement away in distress seems appropriate when dealing with high priority crises (those arising from punishment-minimizing motives). The positive emotion of relief allows increased contact with a stimulus by stopping the distancing.

According to Figure 20.1, the positive emotion of joy increases contact with a stimulus by actively moving a person toward it, and increasing interaction with it; the negative emotion of sadness allows increased distance by reducing this movement toward something. The active movement toward stimuli in joy seems appropriate when dealing with rewards (lower in priority than aversive states); and the passive failure to pursue incentives in sadness seems appropriate for lower priority situations (stimuli that need not be urgently pursued).

If punishment-minimizing motives are those with greater urgency, then the responses of related emotions might well have priority: the movement away in distress would have priority over movement toward in joy. Distress would also have greater power to influence behavior than sadness.

Some data cited by Baumeister et al. (2001) are consistent with this formulation. For example, as discussed above, Baumeister et al. (1994) found that attempts to get out of bad moods were more frequently reported than attempts to get into or maintain good moods. Also, Major, Zubek, Cooper, Cozzarelli, and Richards (1997) found that negative affectivity but not positive affectivity influenced distress. Leith and Baumeister (1996) reported that, unlike low-arousal negative moods such as sadness, high-arousal

negative moods led research participants to “curtail information processing and make snap decisions” (Baumeister et al., 2001, p. 334). These findings are consistent with the depiction of distress as a more powerful, higher priority emotion than sadness. That is, it may be adaptive to have a lower priority emotion (sadness) which prompts us to cease pursuit of rewards; and a higher priority emotion (distress) which demands, more loudly, persistently, and actively, that we maintain efforts to escape from punishing events.

Thus two types and four degrees of prioritization are provided by this system, with priority-appropriate responses specified for each one: negative over positive emotions, and within these classes, avoidance-linked (distancing-related) over approach-linked (contacting-related) emotions.

SUMMARY

In this chapter I have argued that an adequate account of behavior must include both motivations and emotions, which energize and direct behavior under different conditions and in different ways. I proposed that relatively small changes of adaptive significance can give rise to motivational processes, which are relatively planful, deliberative, and specific-purpose responses, tailored to the specific situations in which they occur. Larger changes of adaptive significance give rise to emotional processes, which take precedence over comparable strength or weaker motives. If changes are only moderately large, emotion-specific motivational goals tend to replace motivational goals in guiding behavior. Very large changes produce less deliberative, more impulsive, more preprogrammed general purpose emotional behaviors, governed more by stimulus-contingent patterns of action readiness.

In agreement with the theoretical framework of this volume, the model I proposed recognizes the two basic varieties of motivational processes that have been labeled approach and avoidance motivation. As positive and negative emotions have hedonic valence, they also serve as motives, states to be maximized and minimized respectively.

I next discussed the nature of emotions as syndromes of response that form coping strategies. Different positive emotions constitute distinct ways of coping with different types of opportunities, while different negative emotions are distinct ways of coping with different types of crises. I described a model consisting of 16 positive and negative emotions plus surprise (which is a neutral-valenced emotional reaction to unexpectedness). The positive and negative emotions can be grouped into four families—contacting, distancing, rejection, and attack emotions,

which move toward a stimulus, move away from a stimulus, move a stimulus away from the self, or move against a stimulus. Specific emotions apply each family’s strategy either to objects and events in general (including distinct reactive and preparatory coping strategies), to other people, or to the self. Thus the emotion system cannot be adequately described just in terms of appetitive and aversive or approach and avoidance processes. Behavior guidance mechanisms beyond approach and avoidance, such as attack and rejection, must be recognized; and the specific varieties of contacting, distancing, rejection, and attack strategies that are specialized to deal with impersonal, interpersonal, and intrapersonal opportunities and crises (i.e., the individual discrete emotions shown in Figure 20.1) also appear to have distinctive properties that are worthy of attention.

Finally, I discussed causation of the specific emotions of joy and sadness (by success and failure, respectively, in maximizing reward) and relief and distress (by success and failure in minimizing punishment), as proposed in my model of appraisal and emotion; discussed two other theories that make similar claims, and some evidence supporting these theories; and considered why, from a functional perspective, having different emotions related to appetitive (approach) and aversive (avoidance) motives might make adaptive sense.

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