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The Self-Regulation of Attitudes, Intentions, and Behavior*

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We argue that attitudes and subjective norms are not sufficient determinants of intentions and that intentions are not a sufficient impetus for action, as maintained by leading theories of attitude. To deepen attitude theory, we address the role of cognitive and emotional self-regulatory mechanisms. The attitude-intention link is hypothesized to depend on conative processes and on certain coping responses directed at the emotional significance of evaluative appraisals. The subjective norm-intention relationship is hypothesized to be governed by certain cognitive activities inherent in perspective taking and by positive and negative emotional reactions associated with appraisals of the deviation and conformance of both the self and others to expectations concerning the shared social meaning of a focal act. Finally, the intention-behavior relationship, particularly for goal-directed behaviors, is posited to be conditioned on decision making with respect to the means needed to achieve a goal; with respect to implementation processes related to planning, monitoring, and guidance and control of instrumental acts; and with respect to motivational processes associated with commitment, effort, and affect toward the means.

One mark of the success of any theory is its longevity. By this measure, the theory of reasoned action (e.g., Ajzen and Fishbein 1980; Fishbein and Ajzen 1975) has achieved due recognition as a fundamental model for explaining social action. At the same time, the theory has shown remarkable resilience over the years by undergoing change. This, too, is a tribute to its power and versatility.

Two types of change can be identified in the evolution of the theory of reasoned action. The first consists of the addition of new variables to the theory, as either main or moderating effects. An example of the former is Ajzen's (1991) theory of planned behavior, whereby perceived behavioral control is added to the theory of reasoned action as a determinant of intentions; an instance of the latter is Fazio's research, in which direct experience and attitudinal confidence (Fazio and Zanna 1978) and attitude accessibility (Fazio and Williams 1986) moderate the attitude-behavior relationship. The second development in the theory of reasoned action concerns changes in its internal structure. Liska (1984), for example, proposed that new sequences and interactions be considered among the existing variables in the theory of reasoned action.

It can be argued that recent advances in attitude theory have pushed the field to a critical point. On the one hand, the theory of reasoned action and its offshoots are increasingly able to accommodate ever-wider realms of social behavior. Yet on the other, the risk exists that attitude theory will lose its parsimony and generality if its content and structure increase haphazardly. One drawback to the "other variables" approach to modifications of the theory of reasoned action is that the list of new predictors or moderators is potentially unlimited. In addition, the developments to date have had rather a piecemeal quality in that individual advances have addressed only one or another of the three key links in attitude theory (attitude-intention, subjective norm-intention, or intention-behavior) and therefore lack comprehensiveness and integration. An important question, in the spirit of Liska's (1984) proposal is whether we can retain the core of attitude theory while correcting for the limitations pointed out by researchers in the "other variables" tradition. Before addressing this question, let us review recent developments in attitude theory.

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CONTEMPORARY THEORIES OF ATTITUDE

We begin with a descriptive overview of three theories of attitude. Although similar in many ways, they exhibit a number of

subtle differences important to the critiques and proposals put forth in this essay. These are 1) the theory of reasoned action, 2) the theory of planned behavior, and 3) the theory of trying.

The Theory of Reasoned Action

Figure 1, Part (a) presents an outline of the central variables and relationships in the theory of reasoned action (e.g., Ajzen and Fishbein 1980; Fishbein and Ajzen 1975). This theory hypothesizes that behavior is determined directly by one's intention to perform the behavior; intention, in turn, is influenced by attitude (i.e., one's positive or negative evaluation of performing the behavior) and by subjective norm (i.e., the

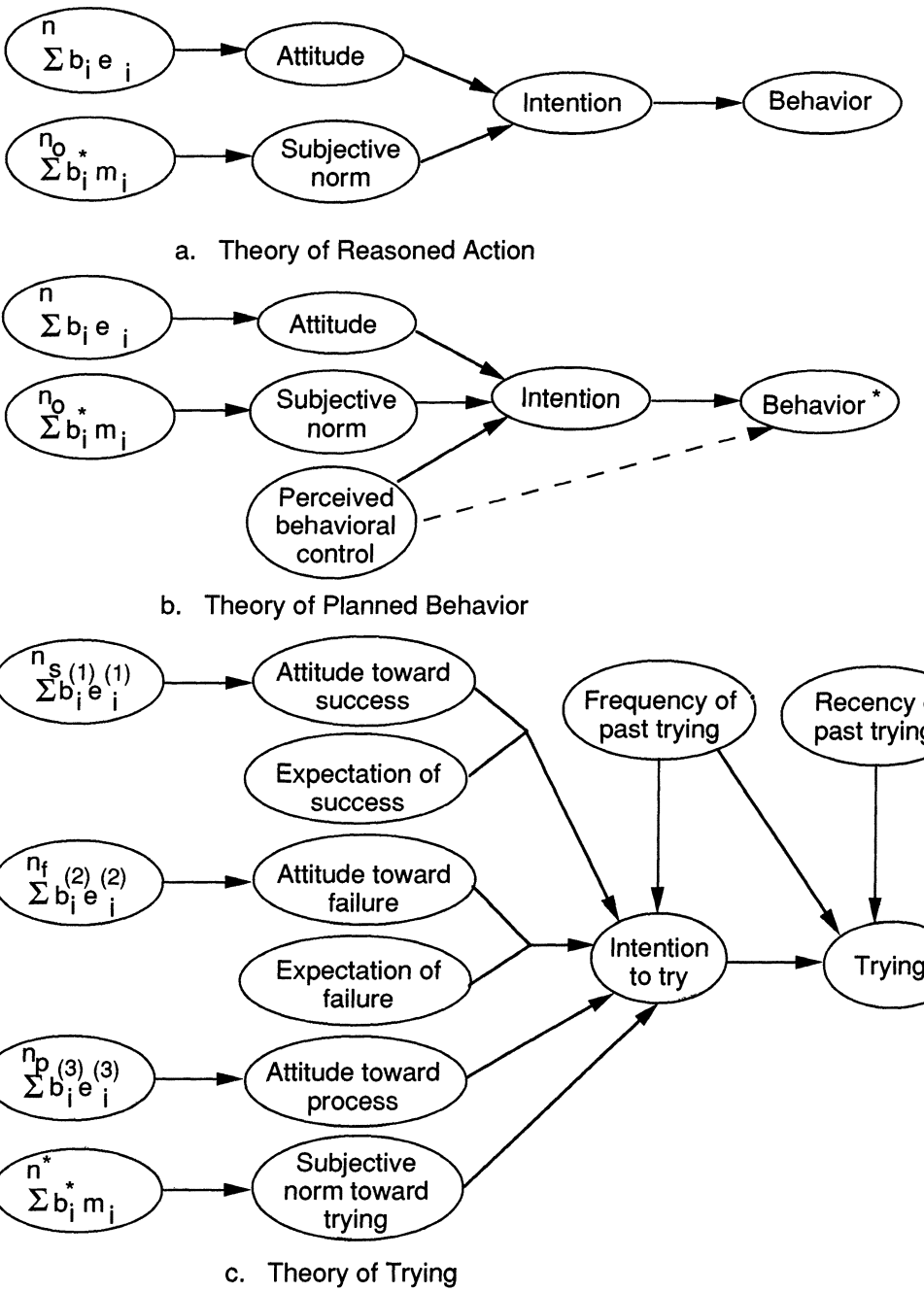

Figure 1. Three Attitude Theories

perceived social pressure to perform or not to perform the behavior). Finally, the anticipated consequences of performing or not performing the behavior affect both attitude and subjective norm. For attitude, beliefs (b_i) that performing the behavior will lead to specific outcomes combine with evaluations (e_i) of the outcomes ($\Sigma b_i\ e_i$). For subjective norm, beliefs (b_i^*) that specific individuals expect one to perform or not to perform the behavior combine with one's motivation to comply (m_i) with these specific individuals ($\Sigma b_i^*\ m_i$).

As shown by its longevity, the theory of reasoned action has considerable theoretical and practical appeal. From a theoretical point of view, it is intuitive, insightful in its ability to explain behavior, and parsimonious. From a practical perspective, it has been applied successfully to contexts such as consumer, health, voting, recreational, and organizational behaviors (e.g., Sheppard, Hartwick, and Warshaw 1988). It is easy to operationalize and yields relevant policy implications in everyday settings.

Because researchers sometimes have applied the theory of reasoned action to objects, goals, outcomes, and other targets never intended by Fishbein and Ajzen, it is important to examine the boundary conditions. A key assumption of the theory of reasoned action is that it addresses behaviors under volitional control, by which the authors meant the following:

> [P]eople can easily perform these behaviors if they are inclined to do so (Ajzen 1985, p. 12). [W]hen one is asked about performing a behavior that is completely under one's own volitional control, one typically believes that one can, and will, do whatever one intends or tries to do (Fishbein and Stasson 1990, p. 177).

In other words, a volitional behavior is an action that a person is able and intends to perform, and whose execution no factors prevent.

Fishbein and Ajzen (e.g., Ajzen and Fishbein 1980) are clear in their requirement that the theory of reasoned action applies only to volitional behaviors. They state explicitly that the theory does not apply to attitudes toward objects, people, or institutions (Ajzen 1985, p. 12; Ajzen and Fishbein 1980, pp. 159–60), to nonvolitional behaviors or goals (Fishbein and Stasson 1990, p. 177; see also Fredricks and Dossett 1983), or to outcomes (Ajzen and Fishbein 1980, pp. 29–30, 111). Despite these exclusions, they claim that the theory applies to a wide range of actions: "[W]e make the assumption that most actions of social relevance are under volitional control" (Ajzen and Fishbein 1980, p. 5; cf. Liska 1984).

The Theory of Planned Behavior

To explain behaviors not "completely" under volitional control, Ajzen (1987, 1991; Ajzen and Madden 1986) introduced the theory of planned behavior. Part (b) of Figure 1 presents this theory. Notice that the theory is identical to the theory of reasoned action except that a new antecedent to intentions and behavior—perceived behavioral control—has been introduced, and that the behavior explained refers not to actions totally under volitional governance, as in the theory of reasoned action, but rather to actions subject to interference by internal and external forces. Perceived behavioral control is defined as "the person's belief as to how easy or difficult performance of the behavior is likely to be" (Ajzen and Madden 1986, p. 457). In this sense it is very close in meaning to Bandura's (1977, 1982) notion of self-efficacy, an individual's confidence that he or she can perform a particular behavior.

Perceived behavioral control is hypothesized to have one of two effects. The path from perceived behavioral control to intentions is based on the premise that perceived control has motivational implications for intentions in the sense that an intention is expected to form in regard to a behavior only when the person believes he or she has the wherewithal to perform the behavior (e.g., Ajzen and Madden 1986, pp. 457–58). This idea would seem to imply an interaction effect (i.e., perceived behavioral control interacts with intentions to influence behavior). Yet on the basis of the results of seven studies investigating an interaction between perceived behavioral control and intentions, in which only one of the seven found a significant interaction at the $p<.10$ level, Ajzen (1991) chose to advocate the model shown in Part (b) of Figure 1. Here, perceived behavioral control is hypothesized to have only a linear effect on intentions.

The path from perceived behavioral control to behavior, shown as a dashed arrow in Figure 1, is anticipated only when perceived behavioral control can be considered to "correspond reasonably well to" (Ajzen 1987, p. 45) or to function as "a partial

substitute for" (Ajzen and Madden 1986, p. 459) *actual* control over internal and external factors that could interfere with performance of the behavior. Therefore the direct path from perceived behavioral control to behavior represents a nonvolitional determination of action.

A growing body of research supports the theory of planned behavior, including studies of class attendance by college students (Ajzen and Madden 1986), weight loss and voting (Netemeyer, Burton, and Johnson 1991), playing video games, job seeking, problem drinking, election participation, giving gifts, cheating, lying, shoplifting, committing traffic violations, exercising, using condoms, and limiting infants' sugar intake (for a review, see Ajzen 1991). We could find only one study which failed to show that perceived behavioral control provided explanatory power over and above that provided by the theory of reasoned action, in this case a study of employees' attendance at a training session (Fishbein and Stasson 1990).

In sum, the theory of planned behavior complements the theory of reasoned action. The latter applies only to behaviors totally under volitional control; the former addresses behaviors under partial volitional control. Perceived behavioral control is thought to take into account personal deficiencies or external obstacles that possibly might thwart performance of an act.

The Theory of Trying

A philosophical problem left unresolved by the theory of planned behavior is whether any action can be in part volitional and in part nonvolitional. Liska (1984) was one of the first scholars to raise this issue, and Ajzen (1987, 1991; Ajzen and Madden 1986) clearly presumes that many behaviors are both volitional and nonvolitional. Indeed, Ajzen (1991) summarizes the results from seven studies showing that perceived behavioral control had a significant direct influence on both intentions and behaviors. Such a position, however, may not be defensible in that it seems to require an actor to be both in control and not in control of the bases for acting in a specific situation. Perhaps for this reason, leading philosophers of action do not allow for such possibilities (e.g., Davidson 1980).

Rather than presuming that any particular behavior can be both volitional and nonvolitional or can be characterized on a continuum between volitional and nonvolitional, one may think of behaviors as consisting of two types: intended actions and unintended actions. An intended action requires that an actor have a reason for acting (based, for example, on his or her attitude or subjective norm) and believe that he or she can initiate the steps needed for action (e.g., Davidson 1980). An unintended action is a movement or response—typically arising from coercion, habit, impulse, or reflex—not based on reason and not planned or intended in the usual senses of those terms (e.g., Taylor 1966, especially ch. 8).

An intended behavior, according to Bagozzi and Warshaw (1990), is conceived by any actor as more or less problematic as to its outcome or success. These authors claim that except, perhaps, for actions that face no impediments, actors approach decision making from the viewpoint of *trying* to achieve a behavioral goal; they define the latter as a desired action whose performance the actor regards as problematic. Figure 1, Part (c) presents Bagozzi and Warshaw's (1990) theory of trying, which attempts to explain such behavioral striving toward goals.

All of the theories shown in Figure 1 explain actions. The theory of reasoned action and the theory of planned behavior, however, take final performance of actions as the dependent variables, whereas the theory of trying conceives of action as a process or a striving. The two former theories view action as single performances of guided bodily movements; the latter theory construes action as one attempt or more, or as a sequence of attempts, to achieve a final performance, in which the attempts involve physical as well as mental efforts following the formation of an intention to try.

Several other differences between the theory of trying and the theories of reasoned action and planned behavior deserve mention. Attitudes, according to the theory of trying, are conceptualized as three components corresponding to three classes of outcomes or happenings typical of goal pursuit: attitude toward success, attitude toward failure, and attitude toward the process of striving to reach the goal. Ajzen; (1985) incorporated the first two attitudes in his original statement of the theory of planned behavior but inexplicably omitted the distinction from subsequent treat-

ments (e.g., Ajzen, 1987, 1991; Ajzen and Madden 1986), only to return to the single-component, expectancy-value conceptualization characteristic of the theory of reasoned action. In contrast, in their study of people trying to lose weight, Bagozzi and Warshaw (1990) found that all three attitudinal components achieved convergent, discriminant, and predictive validity.

Another noteworthy difference between the theory of planned behavior and the theory of trying is the inclusion of perceived behavioral control in the former and the integration of expectations of success and failure into the latter. Bagozzi and Warshaw (1990, p. 127) assert that perceived behavioral control "is very close to the meaning of expectations of success and failure." Perceived behavioral control, however, refers to the actor's belief that he or she can perform the behavior, whereas expectations of success and failure refer to predictions that if one tries to perform a goal-directed behavior, success or failure will result. The former is a judgment of whether one has the ability to perform the *means* to act, and is similar to Heider's (1958) notion of "can" as a disposition. The latter is an estimate of one's likelihood of succeeding or failing after one initiates trying; therefore it refers to *goal attainment*. Perceived behavioral control and expectations of success and failure thus differ fundamentally and correspond to Bandura's (1977, 1982) distinction between self-efficacy and outcome beliefs. As I will discuss later in this essay, I claim both efficacy and outcome beliefs to be necessary for a full explanation of outcome and end-state goal attainment.

A final distinction between the theory of trying and the theories of reasoned action and planned behavior concerns the way in which past behavior is treated. A number of researchers have found that the inclusion of past behavior in attitude models increases the explained variance in intentions (e.g., Bagozzi 1981; Bentler and Speckart 1979, 1981; Fredricks and Dossett 1983) and/or in behavior (e.g., Ajzen and Madden 1986; Bagozzi 1981; Bentler and Speckart 1979, 1981; Charng, Piliavin, and Callero 1988; Fredricks and Dossett 1983), but little theoretical content has been offered to explain what lies behind these effects. Ajzen (1987, p. 41) is quite explicit in his view about the role of past behavior. "[I]t serves no useful purpose to include past behavior (a measure of very specific behavioral disposition) in *causal* models of human action" (emphasis in original); the effects of learning on action are expected to be indirect and to occur through specific changes in beliefs and evaluations (Fishbein and Ajzen 1975). In contrast, the theory of trying hypothesizes that frequency of past trying influences both intention to try and trying, and that recency of past trying affects trying (see Figure 1). Bagozzi and Warshaw (1990) offer a number of arguments explaining how frequency and recency of past trying function; most of these are based on certain effects on expectancies and beliefs or on uncertain or changing cognitions or evaluations, which are not taken fully into account in the measures of the other variables in the theory of trying. Although the arguments offered by Bagozzi and Warshaw (1990) are suggestive, the processes implied are not represented explicitly in measures of frequency and recency. If the real determinants of action are to be understood, more direct representation of the psychological and social processes at work in decision making is needed. At best, inclusion of frequency and recency of past trying controls for omitted variables in tests of hypotheses and helps to clarify the interpretation of the effects of the other variables already included in the theory of trying. This essay attempts in part to address some of the omitted processes with which frequency and recency of past trying might be associated.

The theory of trying has been tested to date in two contexts, trying to lose weight and intention to exercise. Bagozzi and Warshaw (1990) found that trying to lose weight was a function of intentions to try and of recency of past trying, but not of frequency. Attitudes and subjective norms influenced intentions, as predicted. The authors also found strong support for an interaction between attitude toward success and expectations of success, and mixed support for an interaction between attitude toward failure and expectations of failure. Finally, the summations of beliefs times evaluations for the separate components as shown in Figure 1, Part (c), were correlated highly with their respective attitudinal variables. In using the hierarchical regression procedure advocated by Evans (1991), however, these researchers found that only the beliefs and evaluations associated with attitude toward success and attitude toward the process combined multiplicatively

to influence attitudes. That is, beliefs and evaluations of the consequences of failure did not combine multiplicatively to influence attitude toward failure. Similarly, Bagozzi and Kimmel (1992) found that attitude toward success and expectations of success interacted to influence intentions to exercise, but they found only mixed support for the role of attitude toward failure and expectations of failure.

SELF REGULATORY PROCESSES

Against this background, we attempt to provide a critique of the key links in attitude theory and then introduce self-regulatory processes that stimulate intentions, cause enactment of behavior, and lead to goal attainment. By "self-regulatory processes" we mean the monitoring, appraisal, and coping activities that translate 1) attitudes into intentions, 2) subjective norms into intentions, and 3) intentions into actions leading to goal attainment. These self-regulatory processes involve conative, emotional, social, and volitional subprocesses. Some of the ideas presented below draw upon research on control processes (e.g., Carver and Scheier 1990a, 1990b), proactive control (e.g., Bandura 1991), and emotion (e.g., Lazarus 1991; Smith and Lazarus 1990) and integrate these ideas with new developments in philosophy on desires (e.g., Davis 1984). In addition, we introduce new lines of thinking with respect to outcome-desire appraisals, normative appraisals, outcome-identity appraisals, and volitional appraisals. The presentation below is organized according to each key link in attitude theory, wherein we present a critique of current theories and then offer new ideas as steps toward remedies of the problems noted. For each link we use the following framework as an integrating theme for representing the self-regulatory processes: appraisal processes → emotional reactions → coping responses.

THE ATTITUDE-INTENTION RELATIONSHIP

Critique

All three of the theories outlined in Figure 1 maintain that intentions are additive functions of attitude and other factors. A general shortcoming of these specifications can be pointed out. Let us consider the meaning of additive effects; for simplicity we focus on the theory of reasoned action to illustrate this point. The theory of reasoned action maintains that attitude and subjective norm have independent effects on intentions. Therefore three causal outcomes are possible: intentions are a function of 1) only attitude, 2) only subjective norm, or 3) attitude and subjective norm. The theory of reasoned action does not predict when each of the these three possibilities should occur, but rather leaves the particular sequence for empirical determination. In one sense this aspect of the theory is desirable because it permits flexibility: the effects of attitude and subjective norm are compensatory. In addition to the possibility that attitudes and subjective norms can coincide in their influence, positive attitudes can be counteracted by negative subjective norms; negative attitudes can be counteracted by positive subjective norms. Other than discovering this point ex post facto in an empirical analysis, however, a researcher cannot explain why any one of the three particular outcomes results because the theory of reasoned action does not address the theoretical conditions governing the trade-off between attitudinal and subjective normative influences on intentions. Thus the theory contains an element of indeterminacy. Similar comments apply to the theory of planned behavior, which includes perceived behavior control as a further additive determinant of intentions, and to the theory of trying, which includes past behavior as an additional determinant.

One way in which the indeterminacy in the theory of reasoned action has been addressed by hypothesizing an interaction between attitude and subjective norm (e.g., Acock and DeFleur 1972; Andrews and Kandel 1979; Liska 1984; Warner and DeFleur 1969). In this case, attitude is expected to be expressed intentionally only when social support is copresent. This expectation has been termed the "contingent consistency" approach and has found support in a wide variety of social contexts (e.g., Andrews and Kandel 1979; Bagozzi and Schnedlitz 1985; Grube and Morgan 1990; Rabow, Neuman, and Hernandez 1987). We will return to the role of social factors when we address the subjective norm-intention relationship.

Another way to address the indeterminacy as to when attitude will or will not influence intentions (leaving aside momentarily the

effects of subjective norms) is to consider other contingencies not addressed previously by attitude theorists. The theories outlined in Figure 1 maintain that attitudes cause intentions, but they say nothing about the conditions under which they do so. Either one must assume that the attitude-to-intention link is noncontingent (i.e., an intention results every time an attitude is of the right sort) or else one must assume that the link is contingent (i.e., an attitude will not invariably influence an intention; something else is needed in addition to the attitude). The former position is unattractive because it is easy to conceive of cases in which one has a positive attitude toward an action but decides not to act. For example, the opportunity to act may not present itself; one may feel a lack of ability to consummate the act; the means may be excessively noxious; or moral concerns may counteract one's attitude. If favorable attitudes led invariably to intentions to act, we would be confronted with a plethora of competing or contradictory intentions. It is difficult to accept this possibility because it seems illogical to acknowledge that a person can have incompatible intentions at any given time. (One can have incompatible attitudes, of course. See McCann 1986 for arguments against the possibility of the existence of conflicting intentions.)

As a consequence, the contingent perspective appears more palatable: attitudes can actuate intentions, but certain social psychological conditions must be either copresent or forthcoming as accompanying instigators of intentions. Unfortunately, neither the theory of reasoned action nor major revisions, such as the theory of planned behavior or the theory of trying, have much to say about *how* attitudes and intentions are related. The conditions under which attitudes actuate intentions are left unspecified.

The Conative Self-Regulation of the Attitude-Intention Relationship

An attitude provides a reason for forming an intention to act in the sense that the perceived consequences of acting according to one's intentions are believed to lead to valued outcomes. One can argue, however, that a favorable attitude is not sufficient for stimulating an intention and that something more is needed to perform a motivational role. People sometimes find an action appealing, but intend not to act even when social pressures to act exist and when they believe they can act.

The missing motivational link in the attitude-intention relationship seems to be related to the subjective experience of desiring to perform an action (e.g., to acquire an object or to work toward a goal). To desire to do something implies a motivational commitment to do it, if we assume that a person believes he or she can do it. Yet to find an action appealing or pleasant or nice (i.e., to have a positive attitude) is not sufficient motivation. One also must want or desire to do it. Attitudes, as currently conceived, constitute evaluative appraisals of an action, but unless the appraisals are accompanied by a desire to act, an intention will not be forthcoming. A person who finds an act appealing may have no desire to perform it and either may intend not to do it or may form no intention one way or the other. In and of themselves, evaluative appraisals such as those found in attitudes do not imply motivational commitments. In contrast, the existence of a desire, in the presence of a belief that one can act, is a sufficient motivator to activate an intention and does not require a positive evaluation. A person can want or desire to do something even though it is unappealing, unpleasant, or in some other way evaluated negatively (e.g., Fred wants to go to his father's funeral although he is distressed at the prospect of doing so). Likewise, one can want or desire not to do something even though it is evaluated positively (e.g., Gail desires not to exercise today although she regards favorably the consequences of doing so). Of course, desires often coincide with evaluations, but it is important to recognize that these reactions are unique responses with potentially different antecedents and consequences.

In the interest of exploring the construct validity of conative states, a digression is in order. Often it is suggested that intentions, at least in part, are motivational states: "Intentions are assumed to capture the motivational factors that have an impact on behavior" (Ajzen 1987, p. 44). It is worth asking, then, whether desires are distinct from intentions. Fishbein implies that they are not: "Since we believe that intentions are motivational in nature, we feel that . . . the measure of desire, although not fully satisfactory, will come closer to capturing the meaning of an

intention than will a behavioral self-prediction" (Fishbein and Stasson 1990, p. 178).[1]

Against this point of view, we contend that desires and intentions are distinct, and we provide the following rationale. Although intentions presuppose desires in the sense that forming an intention to act requires a desire to perform the act, desires do not imply intentions. A desire will lead to an intention only when self-efficacy also is present. Likewise, to have a desire does not imply that self-efficacy exists (one often wishes for things beyond one's control); yet to have an intention does so imply. Hence intentions and desires are not the same thing, and in principle can achieve discriminant validity. In this connection, measures of desire correlated with measures of self-predictions at a lower level ($r = .37$) than with measures of attitude ($r = .71$) in Fishbein and Stasson's (1990) study of the prediction of training session attendance by administrative employees. Thus desires cannot be considered valid measures of intentions in their study because they achieved rather mediocre convergent validity and lacked discriminant validity with attitudes.

It seems clear that desires and intentions are distinct mental events, but are attitudes and desires each unique, or do they belong to the same category of mental response? We have suggested already that a desire implies a motivational commitment to act, whereas an attitude does not. Other distinctions also are possible. Desire refers only to a future state, for example, whereas attitude can apply to the past, the present, or the future. I can have a positive or a negative attitude toward the American Civil War, but I cannot desire the American Civil War. Likewise I tend to want my attitudes either to persist (e.g., I hope my feelings toward my partner continue) or to change (e.g., I wish my attitude toward exercise would become favorable). In contrast, I want my desires to be satisfied. Desires have a periodicity that attitudes lack. Satisfaction of a desire terminates it, at least temporarily, but it does not make sense to say that one satisfies an attitude. Still another difference between attitude and desire is that attitudes can be good or bad with respect to something, but a desire cannot. A person can only *direct* his or her desire toward the good or toward avoidance of the bad. Finally, intentions imply desires but do not necessarily imply attitudes (i.e., intentions can be stimulated by a desire but do not necessarily require an attitude). Some preliminary research shows that measures of attitudes and desires achieve discriminant validity (Bagozzi and Kimmel 1992).

If desiring is a fundamental psychological determinant of intentions, how do desires arise? How do attitudes relate to them? It is helpful to begin by thinking about two kinds of desires, the appetitive and the volitive (e.g., Davis 1984).

An appetitive desire is directed toward the consumption of things (e.g., a desire for a hot fudge sundae) or toward activities of consuming (e.g., a desire to have sex). In addition, appetitive desires are not based on reasons for performing activities per se. In this sense they differ from attitudes toward an act that can be based on consequences of the act: "There may be reasons why we have a desire to eat (such as food-deprivation), but we do not have reasons for having a desire to eat" (Davis 1984, p. 186). Common synonyms for appetitive desires are *appetite, craving, hungering, longing, urge,* and *yearning*. Davis (1984) maintains that appetitive desires appear as nouns in the following type of sentence: "S has a desire [to x] [for y]," where x is a verb phrase (e.g., "John has a desire to eat lobster") and y is a noun phrase (e.g., "Mary has a desire to have a large family").

A volitive desire, like an attitude toward an act, is based on reasons, but unlike attitude it implies a motivational commitment. Davis (1984) asserts that volitive desires appear as transitive verbs in the following type of sentence: "S desires [to x] [y]," where x again is a verb phrase (e.g., "Ruth desires to sing the lead part") and y is a noun phrase (e.g., "George desires to earn a college degree"). Common words expressing volitive desires are *want, wish, would like,* and possibly *covet*.

Appetitive and volitive desires can be independent of each other. A person has the former without the latter, for example, when he or she craves a dessert but maintains his or

[1] Fishbein equates intentions with self-predictions for cases in which people act volitionally: "[T]he distinction between self-prediction and intentions is only meaningful when one is dealing with nonvolitional behaviors, goals, or outcomes. . . . Thus, for behaviors under volitional control, measures of what one intends, will try, or will do are all valid indicants of the same latent variable, namely intention" (Fishbein and Stasson 1990, p. 177).

her resolve to not eat desserts while on a diet. A person has a volitive but not an appetitive desire, for instance, when he or she eats a disliked vegetable because of its nutritional properties or because it would be impolite to refuse it. The most interesting cases may concern the interplay between appetitive and volitive desires. Davis (1984) discusses how appetitive desires may be directed toward volitive or even other appetitive desires and how volitive desires may be directed toward appetitive and other volitive desires.

In an analogous way, we suggest that attitudes can stimulate volitive desires and can serve to free up appetitive desires. Let us consider how attitudes might influence volitive desires. Michael finds a winter holiday in the Bahamas highly pleasurable, and this pleasure leads to a desire to purchase a time-shared condominium for future holidays. Appetitive desires are not based on reasons; therefore attitudes cannot create such desires anew. Nevertheless, an attitude can function as a catalyst to release a hidden desire. Susan, previously an indifferent student, experiences positive consequences of learning while in college. She discovers that she values learning highly, and this discovery releases a latent desire to pursue a career in university teaching and research. "I thirst for knowledge" is her way of expressing this newfound appetitive desire.

In sum, I suggest that our traditional view of the energization of intentions by attitudes needs to be reconsidered. Attitudes can lead to intentions, but they appear to do so either by stimulating a volitive desire or by freeing up an appetitive desire (see Figure 2). Further, desires occasionally stimulate intentions without any influence by attitudes. Under the right conditions, evaluative reactions lead to intentions but intentions do not require evaluative reactions. Desires are necessary for the development of intentions and provide the impetus for action that is missing in attitudes. In their study of exercise and dieting, Bagozzi and Kimmel (1992) found that much higher variance in intentions was explained by desires than by attitudes. Likewise, Fishbein and Stasson (1990, Table 2, p. 186) found that desires, but not attitudes, predicted behavior.

A final issue concerns the measurement of desires. One way to measure desires is by asking how intense or how strong one's desires are. For example, the desire to contribute to a social cause might be measured on scales anchored with "no urge at all to donate" and "strong urge to donate" or with "no wish at all to donate" and "strong wish to donate." Reactions to fulfillment or frustration also might be used to measure desires: "If your desire to do x were fulfilled (frustrated), how would you feel?" Similarly, indications of desires could be made through representations of their persistence, resistance to change, pervasiveness of influence, and ease of satisfaction or frustration. Finally, the degree of effort made in trying to do or obtain something might serve as a behavioral indicator of desire.

The Emotional Self-Regulation of the Attitude-Intention Relationship

The theories depicted in Figure 1 conceptualize attitude as an evaluative appraisal of the consequences of acting or not acting. The appraisal is either favorable or unfavorable, and typically is expressed with good-bad, pleasant-unpleasant, or similar semantic differential items. Following the appraisal, intentions are expected to emerge if the evaluations are strong enough, but the qualities that make an evaluation "strong enough" and give it its motivational nature are not addressed in the theories.

One element missing from attitude theory is the mechanism that translates evaluations into intentions. To provide an explanation of this translation, it is useful to begin with Lazarus's theory of emotion and adaptation (e.g., Lazarus 1991; Smith and Lazarus 1990). Lazarus proposed that appraisal processes of internal and situational conditions lead to emotional responses; these, in turn, induce coping activities: appraisal → emotional response → coping.

An appraisal is the evaluation of internal or situational conditions as they apply to one's

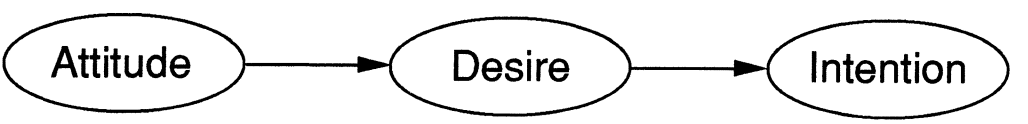

Figure 2. Attitude, Desire, and Intention

well-being. Two appraisal processes can be identified: primary and secondary. In a primary appraisal, one assesses 1) the motivational relevance of the conditions leading to the appraisal (i.e., their importance in terms of one's goals), 2) the motivational congruence, or the extent to which the conditions thwart or facilitate achievement of one's goals, and 3) one's ego-involvement. A secondary appraisal addresses the resources or options for coping with internal or situational conditions. Concerns in this area include 1) attribution to oneself or to another of credit or blame for any harm or benefit, 2) self-efficacy with regard to acting on the situational conditions, 3) self-efficacy with regard to regulating one's own internal states, and 4) expectations of forces operating beyond one's control.

Lazarus (1991) hypothesized that three possible outcomes arise as functions of appraisal, depending on the situation: biological urges to act, subjective experience or affect, and physiological responses. The unique combination of these outcomes determines which particular emotion (e.g., anger, anxiety, joy) will result from any appraisal. In the presence of a particular emotion, two coping responses then are possible. Problem-focused coping consists of efforts to overcome or reduce the effect of an undesirable situation. This response, for example, might entail changing the physical situation, breaking off a relationship, or persuading someone to do something to remove an external threat. Emotion-focused coping refers to cognitive strategies to master, reduce, or tolerate an undesirable situation. Such strategies might entail denial, avoidances of thinking about an appraisal, or reconceptualizing the source of dissonance or its meaning.

Lazarus (1991) was most concerned with the definitions of emotions and the distinctions between them, and with how people adapt to them and to the situation, particularly in the case of emotions related to harmful person-environment relationships. Nevertheless, we find it useful to adopt his general framework of appraisal → emotional response → coping to explain how attitudes lead to intentions. To do this, we begin by defining the idea of an *outcome-desire unit*. An outcome is an event that happens to one, that one produces, or that one can take steps to influence in the future. A desire is a conative state directed toward approaching or avoiding something. Outcome-desire units represent particular classes of appraisals with personal significance for an individual. Two classes, each with two subcases, are of particular interest to attitude theory.

The first class concerns reactions to planned or unplanned outcomes in the past or the present. A goal might be achieved or not; an unexpected event might be pleasant or unpleasant. Given a goal or event outcome in these senses, one can identify two general reactions (see Figure 3). When one fails to achieve a goal or experiences an unpleasant event, an *outcome-desire conflict* can be said to occur. This conflict will lead to dissatisfaction, despair, distress, disgust, jealousy, anger, sadness, compassion, or disappointment if the goal was a positive prospect or if the event was negative. In such cases, particular intentions are likely to form to cope with the outcome-desire conflict. That is, an actor will be motivated to avoid, relieve, change, tolerate, or in some other way do something about the negative condition. The specific coping response in this case (and for many of the other outcome-desire units discussed below) will depend on the particular emotion elicited; on whether the self, another person, or an external cause is responsible for the outcome; and on one's degree of self-efficacy in executing coping responses. For example, if an individual fails to win the lottery and then feels disappointed, he or she simply may intend not to play again because of a perceived lack of control over the outcome. In another example, a person who becomes angry because a careless truck driver nearly runs him or her off the road may decide to call the 800 "How am I driving?" number painted on the back of the truck. The intention here is predicted on the arousal of fear, the attribution of blame, and the belief that calling the truck company may yield some self-gratification, if it does not actually remove the chances of further harm to others and to oneself. In another example of an outcome-desire conflict, a personal loss leads to sadness; this, in turn, stimulates an intention to obtain help and support.

In contrast, when one achieves a goal or experiences a pleasant event, an *outcome-desire fulfillment* can be said to occur. This experience will lead to satisfaction, elation, pleasure, love, or joy if the goal or event was a positive prospect, and to relief if the goal or event was the avoidance of a negative

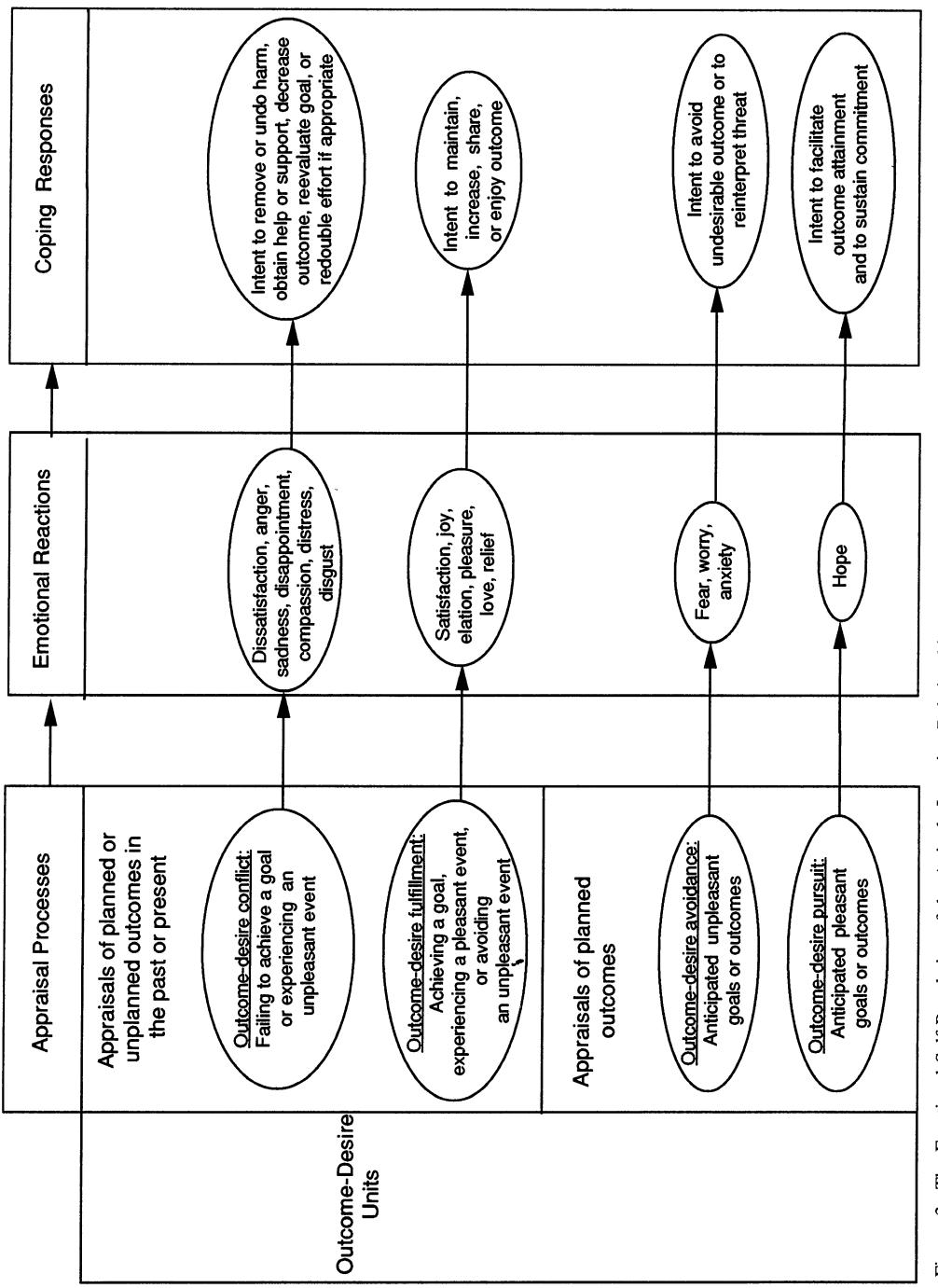

Figure 3. The Emotional Self-Regulation of the Attitude-Intention Relationship

prospect. Here, specific intentions probably will emerge to take steps to maintain or increase the satisfaction or joy, to share one's positive outcomes with others, or simply to savor the experience. Again, the specific coping response will depend on the particular emotion, on the attribution of responsibility, and on the degree of self-efficacy characteristic of this outcome-desire unit. An example of an intention arising from an outcome-desire fulfillment is a plan to return to a newly found restaurant after a delightful dinner.

The second class of interest concerns expected or possible outcomes. Two subcases are pertinent: outcome-desire avoidance and outcome-desire pursuit. *Outcome-desire avoidances* refer to results that one anticipates will be unpleasant. In such cases the emotional responses are fear, worry, or anxiety; intentions arise to activate plans and instrumental acts for avoiding the undesirable outcomes. For example, a person who dreads the impending extraction of his or her wisdom teeth might decide to speak with others who have gone through the procedure in order to lessen the fear.

Outcome-desire pursuits address goals or outcomes that one anticipates will be pleasant. Here the emotional response is one of hope; intentions form to activate steps needed to realize the goal or to facilitate the likelihood that the outcome will occur, and in general to sustain one's commitment and remain vigilant. For instance, Karen looks forward to a visit from her parents; in the hope that things will go smoothly, she intends to call them before they begin their trip in order to reassure them of her plans and her desire to reunite with them.

With respect to the measurement of the emotional self-regulation of the attitude-intention relationship, each of the three components—appraisal, emotional reactions, and coping responses—needs to be addressed. Appraisals of outcome-desire units can be measured by asking people to evaluate the relevance, desirability, accountability, and self-efficacy of outcome-desire units. Emotional reactions resulting from these appraisals might be obtained by asking people to select pertinent emotions from a checklist and then to express the intensity with which they experience each. Coping responses can be elicited by asking people to state which coping thoughts and actions they used in response to planned or unplanned outcomes or intend to use in relation to expected or possible outcomes. Guidelines and hints for measurement can be found in Lazarus's (1991, pp. 446–48) questionnaire on appraisal styles and Folkman and Lazarus's (1988) coping questionnaire.

In sum, we hypothesized the energization of the attitude-intention relationship to depend on conative or emotional self-regulatory processes. These are fundamental processes, but they have not been addressed before in attitude theory. We turn now to the role of social support in attitude theory.

THE SUBJECTIVE NORM-INTENTION RELATIONSHIP

Critique

According to the theories of attitude summarized in Figure 1, intentions to perform a behavior are hypothesized to be directly under the control of subjective norms concerning performance of the behavior. A subjective norm is the degree to which an individual feels that most people who are important to him or her believe he or she should perform a particular behavior. There is little doubt that intentions sometimes are associated positively with subjective norms (Ajzen 1991; Ajzen and Fishbein 1980). Nevertheless, it can be argued that the representation of normative influence by use of subjective norms is incomplete in two senses. To understand this argument, it is helpful to begin with the premise that at least part of one's experience of social action exists in terms of one's own sense of how he or she should think, feel, and behave.

One problem with limiting normative experiences to the influence of subjective norms is that the theory rests on an unidirectional interpretation of these experiences. Subjective norms function as a force pushing one to act in a particular way. Missing, however, is the process of taking the perspective of another person, such as occurs in role taking, which is an inherently social activity. Following Mead (1934; Joas 1985), we conceive of perspective taking as the use of symbols and images to bring about in one's own consciousness the expectations and response tendencies of, and the emotional relationship to, significant others. Rather than seeing the effect of normative experiences solely in stimulus-response terms (i.e., as the

impact of subjective norms on intentions), we sense a need to revamp attitude theory so as to take into account normative factors as self-regulatory activities performed within a social process.

We can regard the social process as one in which a person strives to solve the problem of coordinating mutual actions. Current attitude theories view a person as buffeted by social pressures rather than as coordinating his or her thoughts, feelings, and actions with those of significant others. Coordination takes place in cooperative, competitive, and conflict relationships and is less a reaction to another than an adjustment process that takes the other into account.

Normative experiences function in at least three social contexts: when a person is an independent agent, a member of a group, or part of a formal organization. When a person is an independent agent, he or she forms appraisals of coordinated expectations and commitments to significant others. In such cases the normative influence is a function of the links to others whereby each connection is relatively independent of the connections among the others. Normative experiences in groups or organizations entail conscious appraisals of the expectations and response tendencies of multiple actors as well as of oneself, because these appraisals relate to a system of interconnected roles and to their meaning for the welfare of the group and the focal action. In all three social contexts, one's role identity serves as a basis for appraisals and motivation to act (e.g., Burke and Reitzes 1991; Morgan and Schwalbe 1990; Stryker 1987). In the next titled section we will discuss how this phenomenon is manifested in normative experience and how current attitude theories can be reformulated to accommodate it.

A second problem with limiting normative experiences to the influence of subjective norms is that it neglects an important class of motivational elements: namely, normatively based emotions and their role in energizing intentions. In current theories of attitude, subjective norms are the direct determinants of intentions to act, but the theories have nothing to say about the emotional significance of the subjective norm. The motivation to comply covers only a portion of relevant emotional reactions; it is not part of subjective norms in attitude theory, but affects intentions indirectly by functioning as an antecedent to subjective norms. In this article we argue that a valid theory of social action requires a more direct and more comprehensive specification of the emotional significance of any social relationship.

We believe that any subjective norm has emotional content for the person experiencing the norm, and that this content arises in the person's mind in two interconnected ways. First, given a perceived subjective norm, a person will have an emotional reaction toward the self, whereby the subjective norm and the emotion pertain to his or her past, present, or possible future actions. Second, the focal person will perceive an emotional reaction in the significant other; again, the emotion pertains to action by the focal person. The emotions stem from the coordination of one's expectations and actions with those of another, and act to reinforce or retard the activation of an intention.

Imagine a closely knit group of colleagues gathering shortly before the lunch hour. They have not yet agreed upon a restaurant. To simplify things, let us limit consideration to one member of the group, Person X. Person X likes Restaurant A, but he refrains from mentioning it as a possibility because he knows that Person Y, and possibly others in the group, dislike the restaurant. Person X, in fact, feels guilt (or some other emotion of self-reproach) for even thinking of suggesting Restaurant A, and correspondingly is aware that feelings of resentment (or perhaps disdain or contempt) are likely to arise on the part of Person Y if he, Person X, recommends Restaurant A. Person X therefore intends not to mention Restaurant A. (As a parallel example, feelings of self-esteem and anticipated admiration from group members would lead to an intention to recommend Restaurant B, an alternative perceived as liked by others in one's salient group.)

Within the confines of current theories of attitude, the above example might be described as an instance in which Person X has a subjective norm to the effect that Person Y believes that Person X should not suggest Restaurant A. The possession of such a norm, however, says nothing about how one interprets that norm or reacts to it emotionally, nor does it necessarily imply a commitment to any intention. In contrast, feelings of guilt within oneself and of perceived resentment from another provide a motivational basis for forming an intention. The anticipation of

resentment from another toward one's possible course of action presupposes that one is aware of the other person's expectations and of the magnitude of the other's likely disapproval. The sense of guilt, in turn, constitutes one's self-awareness of the importance of approval (or at least of avoiding disapproval) from the other party. Together, guilt and perceived resentment function as coordinated emotions in the mind of a social actor, but are predicated explicitly on a formal process of taking the perspective of a significant other. Abe and Bagozzi (1992) examined measures of coordinated emotions in the context of fast-food restaurant patronage, and found that the measures achieved convergent validity and were distinct from measures of subjective norm. We turn now to an expansion of this way of viewing normative behavior, which includes a wider range of normatively based emotions than resentment and guilt and integrates these emotions into a theory of normative influence.

The Cognitive and Emotional Self-Regulation of Normative Experience

Normative influence can be considered the result of the integration of one's own expectations and feelings with significant others' perceived expectations and feelings with respect to the shared moral or social meaning of performing a prospective act. Three dimensions of normative influence require scrutiny: the social actors whose perspectives are to be integrated (i.e., the self and significant others), whether action encompasses conforming or not conforming to the expectations of the self and of others, and whether the emotional response is positive or negative. Thus, when contemplating whether or not one should act or which of a set of actions one should choose, a decision maker must weigh the consequences of positive and negative emotions of conforming and of not conforming to one's own and significant others' expectations. Table 1 presents many of the possible coordinated emotions that occur for the self and for significant others. Note that positive *and* negative emotions are possible with regard to conforming and not conforming. For instance, a person might feel pride or guilt toward the prospect of conforming or not conforming; one also could feel contempt or admiration toward a role partner for conforming or not conforming.

Table 1. Positive and Negative Emotions toward the Self and Significant Others in Normative Action

	Emotions	
	Postive	Negative
Self	Pride	Embarrassment
	Self-Esteem	Guilt
	Arrogance	Humiliation
	Haughtiness	Mortification
	Disdainfulness	Self-Blame
		Self-Condemnation
		Self-Reproach
		Shame
		Remorse
Perspective		
Significant Others	Admiration	Dismay
	Appreciation	Contempt
	Awe	Despising
	Esteem	Indignation
	Respect	Reproach
		Resentment

Again let us consider a group of colleagues gathering to decide where to eat lunch. To simplify things, we will address only the cases in which the self and significant others are presumed to experience positive emotions toward conforming and negative emotions toward not conforming, although in the general case we acknowledge the additional possibilities of feeling good about deviance by the self and others and feeling bad about compliance by the self and others. As a consequence, an actor must integrate four conditions: negative feelings toward a deviant group member, negative feelings toward a deviant self, positive feelings toward a conforming group member, and positive feelings toward a conforming self.

These reactions might be measured as follows. Negative feelings toward a deviant friend in a decision situation might be measured by one's degree of resentment, contempt, and indignation. Negative feelings toward a deviant self could be indicated by how much guilt, shame, and self-reproach one feels. Positive feelings toward a conforming friend might be measured by one's degree of admiration, respect, and esteem. Finally, positive feelings toward a conforming self could be indicated by how much pride, self-esteem, and self-respect one feels.

So far we have addressed the cognitive and emotional self-regulation of the normative-intention relationship for the case in which the self and specific others have more or less egalitarian relations in a small set of individ-

uals, such as a collegial group. More generally, it is possible to think of an actor's links to the larger social context in terms of role-identities (e.g., Burke 1980; Morgan and Schwalbe 1990; Stryker 1987; Stryker and Serpe 1982). Role-identities are self-images with respect to one's position in the social structure. A role-identify typically is represented in mental images or schemas (e.g., Markus 1977) and consists of internalized expectations and scripts of how one should act in particular situations. The internalization of role-identities has been called "role-person mergers" (e.g., Turner 1978).

In addition to providing internal guidance as to what one should do, role-identities are associated with motivational factors related to one's self-concept and self-esteem and to the rewards and punishments one can receive through the roles one enacts. The subjective norm-intention relationship can be thought to depend on *outcome-identity appraisals,* analogous to the outcome-desire appraisals described above for the attitude-intention relationship. Specifically we hypothesize that people evaluate the significance of events which promote or threaten one's self-image as it relates to particular role-identities. Somewhat similar ideas were proposed by Thoits (1983, 1991) in her work on "identity-relevant stressors."

Outcome-identity appraisals occur in response to two broad classes of events: those happening in the past or the present and those anticipated in the future (see Figure 4). An *outcome-identity conflict* refers to threats to one's self-image that have happened already or are ongoing in a role relationship. This conflict can occur in two ways. In one way, a focal person fails to perform an obligation or falls short of achieving the expectations of a role partner. In such cases the focal person's initial emotional reaction is one of guilt or shame, coupled with distress. The combination of self-disapproving emotions toward blameworthy actions with feelings of dissatisfaction leads to the compound emotion of remorse or even depression (e.g., Ortony, Clore, and Collins 1990, p. 148). A second cause of an outcome-identify conflict can occur when one's role partner fails to fulfill an obligation or falls short in achieving one's expectations. Here the focal person's initial emotional reaction is one of contempt or reproach, coupled again with distress. The combination of disapproving of another's blameworthy actions with displeasure yields the compound emotion of anger (see Figure 4).

Intentions in response to outcome-identity conflicts may take a number of directions. Three responses to remorse are possible. First, one might decide to protect or bolster the relationship directly because it is threatened in one sense. For example, a person who fails to perform an obligation might plan to apologize and make restitution as soon as possible, to be more responsible in the future, and in general to recommit himself or herself to the role relationship. Second, a person might decide to cope through cognitive strategies such as feeling sorry for oneself, repairing one's wounded ego, or redefining one's perceived responsibilities. A third strategy might be to withdraw from the relationship, especially in the case of less salient role-identities. Alternatively, when shame is a factor, one sometimes tries to hide.

Likewise, three coping responses are possible for anger. The person might intend to hide his or her anger to perceive the relationship, and then perhaps might attempt to induce the other person to perform more responsibly. As a second alternative, one might cope by deciding to confront the role partner, thereby protecting one's own ego and persuading the other to fulfill his or her obligations. Third, as with remorse, withdrawal may be planned for less important role-identities. Lazarus (1991, p. 232) considers still other coping responses to anger.

When an event already has happened or when an ongoing event continues to enhance one's self-image in a role relationship, an *outcome-identity fulfillment* can be said to occur. Two cases are of interest. In the first case, a focal person fulfills an obligation or achieves a role partner's expectations in some other way. Here the focal person's initial emotional reaction is one of pride, coupled with pleasure or satisfaction. The combination of approval of one's own praiseworthy actions with feelings of satisfaction leads to the compound emotion of gratification (e.g., Ortony et al. 1990, p. 148). The second case of an outcome-identity fulfillment occurs when one's role partner fulfills an obligation or achieves the focal person's expectation in some other way. Here the focal person's initial emotional reaction is one of admiration, appreciation, or respect, coupled with

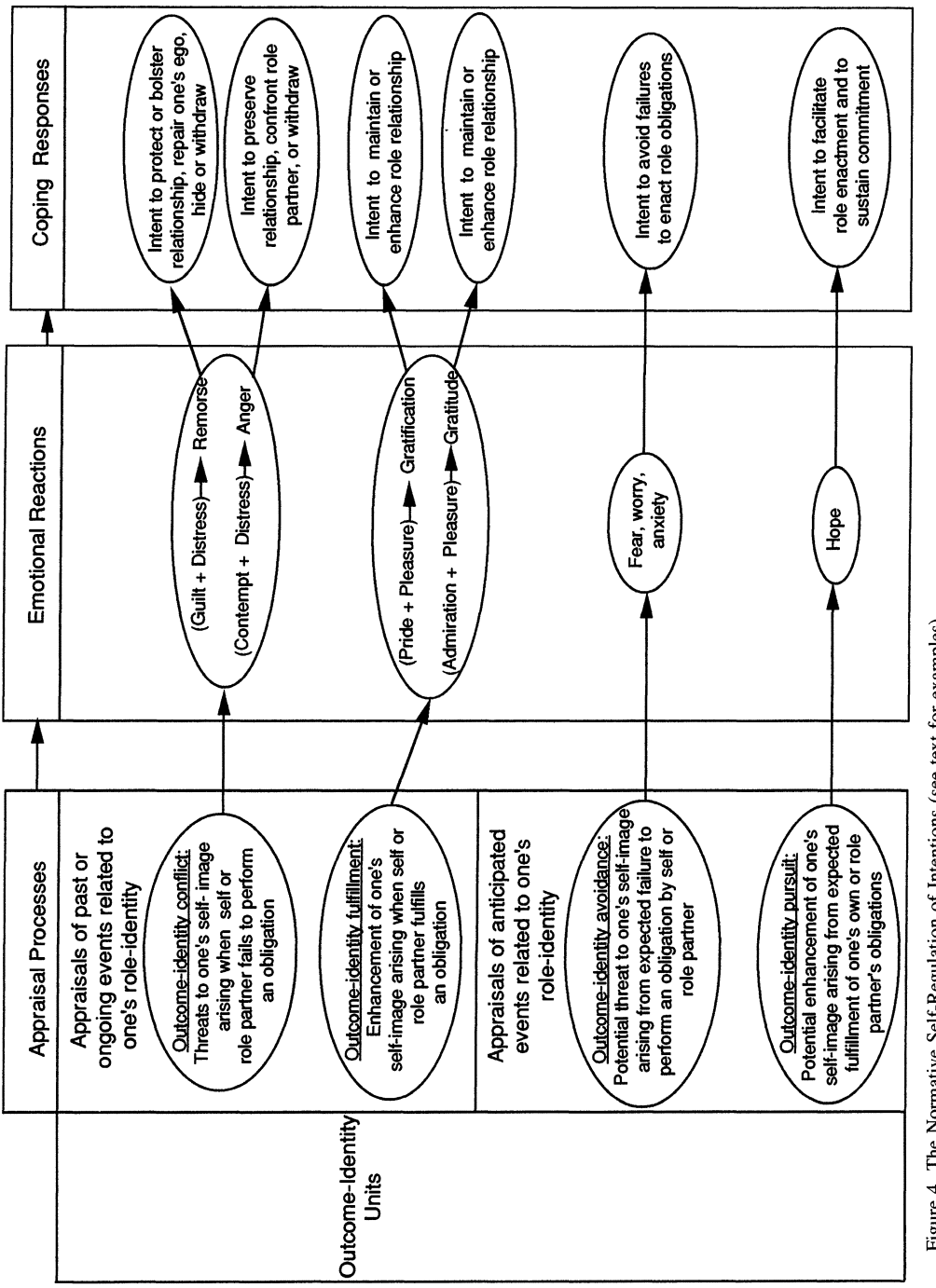

Figure 4. The Normative Self-Regulation of Intentions (see text for examples)

pleasure or satisfaction. When emotions associated with approving a role partner's praiseworthy actions are combined with feelings of satisfaction, the compound emotion of gratitude is the result.

In cases of gratification and gratitude, intentions likely will develop to maintain or enhance the role relationship. This process might involve decisions to renew one's commitments, to remind or inform role partners of one's own prior contributions, to praise role partners for fulfilling expectations, and to reflect on one's own accomplishments and thereby reinforce one's self-image with regard to one's role-identities.

Outcome-identity appraisals also occur for anticipated events. An *outcome-identity avoidance* refers to events that one anticipates will be unpleasant in a role relationship, such as one's own or a role partner's imagined substandard performance or failure to perform an obligation. An *outcome-identity pursuit* addresses events that one anticipates will be pleasant, such as one's own or a role partner's successful fulfillment of an obligation. Because outcome-identity avoidances and pursuits function as objectives, the emotional reactions and intention responses are similar to those noted above for outcome-desire avoidances and pursuits, and will not be repeated here (see Figure 4).

Although the self-regulation of the subjective norm-intention relationship has not been tested, several recent studies provide indirect support. Granberg and Holmberg (1990) found in their study of voting behaviors that self-identity had a stronger effect on intentions for strong than for weak partisans. Charng et al. (1988) discovered in their study of blood donation that measures of role-person merger and measures of commitment to social relations predicted intentions more accurately than subjective norms. Finally, in their investigation of continuing in school versus dropping out, Biddle, Bank, and Slavings (1987) showed that self-identity provided more explanatory power in predicting intentions than did attitudes and subjective norms.

A number of other factors must be considered in the self-regulation of the subjective norm-intention relationship. The parties in a social relationship are likely to differ in their ability to take other people's perspective, in their commitment to the relationship, and in their acceptance of norms. Likewise, conflicts are likely to exist among parties in a social relationship with respect to expectations, obligations, and the desirability of various actions. The above factors are likely to affect decision making, perhaps by moderating the effect of outcome-identity appraisals, but these are beyond the scope of this essay and are left for future examination.

THE INTENTION-BEHAVIOR AND INTENTION-OUTCOME RELATIONSHIPS

Critique

Each of the theories described in Figure 1 assumes that intentions directly determine action of one sort or another. Intentions lead to volitional behaviors in the theory of reasoned action, to nonvolitional behaviors in the theory of planned behavior, and to strivings in the theory of trying. One problem common to all of these theories is that the processes explaining how intentions produce action are left unexplored. How can an intention—a mental process—produce action, an observable event? What provides the bridge or transition between the mental and the physical? This question is a long-standing issue in philosophy, and we make no attempt here to address the philosophical underpinnings. Nevertheless, between the point at which at least some intentions are formed and the point at which a target action is finally executed, social psychological processes (and possibly instrumental acts) surely occur. Yet neither the theory of reasoned action, the theory of planned behavior, nor the theory of trying considers such possibilities. Nor do any of these theories address outcomes; yet people frequently form intentions to produce outcomes, and such intentions are contributing causes of their production.

To discover an important class of actions and outcomes when attitude theory needs refinement, it is useful to consider three species of intentions. The first two—present-oriented and future-oriented intentions—apply to actions proper, whereas the third—the goal-directed intention—addresses outcomes toward which one strives.

A present-oriented intention is a personal decision to act immediately. John sees a colleague across the square and alters his path with the intention to inform the colleague about the outcomes of the faculty meeting he

missed. Joan feels a pang of hunger and rises from her desk with the intention to purchase a candy bar from a vending machine. In both cases, the actions—the initiation of a conversation by John, the depositing of coins and pulling of the lever by Joan—occur immediately or almost immediately after formation of the intentions. Unless an unlikely event of sufficient magnitude arises straightaway, the present-oriented intention will lead to action. Here all three of the theories summarized in Figure 1 function well to explain the action.

A future-oriented intention is a decision to act later. Two cases are of interest. First, under a noncontingent future-oriented intention, one decides at t_1 to act at t_2. Obviously, as the gap in time between t_1 and t_2 widens, the chances will increase that one will change one's intention or that unexpected events will make one's intention impracticable or undesirable. Metaphorically, the noncontingent future-oriented intention functions as a stored promise whose fulfillment unfolds, as planned, at the appointed time (barring unforeseen circumstances, in which case the relationship breaks down).

Second, under a contingent future-oriented intention, a decision maker again makes up his or her mind at t_1 to act at t_2. Unlike t_2 in the noncontingent case, however, which is known precisely or within limits, this t_2 is an unknown future time whose occurrence is conditioned on the emergence of a problematic elicitor. For example, a consumer might intend to purchase a longed-for stereo component only when it goes on sale. The sale, in the eyes of the decision maker, will occur at random or perhaps never at all. In contrast, an intention to do the laundry next Saturday is a noncontingent future-oriented intention. Its fulfillment proceeds under its own momentum unless an event arises to interfere with its performance or unless one has a reason to change plans. The three theories of attitude outlined in Figure 1 can be seen to apply to future-oriented intentions. In the noncontingent case, a positive instance of an intention-behavior relationship confirms the theory; a negative instance can be explained by a change in intention. In the contingent case, a positive instance also confirms the theory; a negative instance is explained when no elicitor arises. In these senses, the theories are testable. Bagozzi and Warshaw (forthcoming) present empirical evidence supporting the distinction between noncontingent and contingent future-oriented intentions.

Problems arise for the theories of attitude when one intends to pursue a goal or produce an outcome. In this article we use the term "goals" to refer to behaviors that one strives to perform with the foreknowledge that any performance will be problematic. This use of "goal" is similar to the use of "goal-directed behavior" in the literature. An outcome is an end state that one attempts to produce, in which, as with a goal, the outcome is believed to be problematic in the mind of the decision maker. Note that goal-states (e.g., "achieve a 3.5 grade point average over four years of college") are essentially equivalent to outcomes under the definitions used in this article.

By definition, the theory of reasoned action addresses neither goals nor outcomes. The theory of planned behavior applies to goals but not to outcomes. In the goals to which it applies, however, an intention can contribute to goal attainment immediately after the formation of an intention, or when a present intention to pursue a goal in the future operates by resurrecting the same intention at the future point and when goal attainment follows immediately. The theory of planned behavior does not apply to cases in which mental steps must be taken after intention formation en route to goal attainment. The theory of trying applies neither to goal attainment nor to outcome attainment per se. Rather it extends only as far as efforts in pursuit of these goals, and fails to address the link between trying and either goal or outcome achievement (see Figure 1).

Our objective in the concluding section of this article, then, is to consider the social psychological mechanisms that intervene between the formation of an intention to pursue a goal or produce an outcome and the actual attainment of the goal or outcome. The intention to pursue a goal or produce an outcome is different from an intention to act. As we argue below, it represents an essential decision point that motivates consideration of the means to goal pursuit or outcome attainment. It arises, as Bagozzi and Warshaw (1990) argue, in response to attitudes toward success, failure, and the process of goal pursuit, in which evaluations of success and failure are weighted respectively by expectations of success and of failure. The intention to pursue a goal also can arise

through normative pressures. To explain goal or outcome attainment as a function of the intention to pursue the goal or outcome, it is necessary to expand the representation of volitional processes beyond the mere formation of an intention. For simplicity in the following discussion we omit references to outcomes, but parallel arguments apply for outcomes.

THE SELF-REGULATION OF GOAL ATTAINMENT[2]

Lewin sets the stage for our approach to volitions:

> Intentional actions are usually considered the prototype of all acts of will. Theoretically a complete intentional action is conceived of as follows: Its first phase is a motivational process, either a brief or a protracted vigorous struggle of motives; the second phase is an act of choice, decision, or intention, terminating this struggle; the third phase is the consummatory intentional action itself . . . The problem is: how does the act of intending bring about the subsequent action, particularly in those cases in which the consummatory action does not follow immediately the act of intending? (1951, pp. 95–96).

To answer this question, we must go beyond the ideas offered by Lewin and consider a finer-grained conceptualization of volitions in which a number of processes are proposed as intervening between the intention to pursue a goal and the attainment of the goal.

Figure 5 shows the central components of this expanded model of volitions. In the presence of an intention to pursue a goal, decisions are made with respect to means. This process leads to the performance of instrumental acts and expressions of goal-directed motivation. Goal attainment will be a function of the interplay between a decision maker's goal-directed behavior and the facilitating and inhibiting conditions in the goal setting. Overall the process involves appraisals, emotional and motivation reactions, and coping responses. We now discuss each component shown in Figure 5.

After a person forms an intention to pursue a goal, he or she is faced with the problem of how to reach that goal. For a goal that was pursued frequently in the past, a decision maker automatically might actuate a stored rule or script such as "Use the means I used last time." For a new goal low in salience or simple to achieve, the individual might apply a stored rule such as "Use the easiest means" or "Use the means that first come to mind." For a new goal high in salience or difficult to achieve, the rule might be "Generate alternative means (by a search of one's memory and external sources), evaluate them, and then choose the best" (e.g., Janis and Mann 1977). Thus, in the presence of an intention to pursue a goal of the latter type, the first stage of goal pursuit is the appraisal of means.

Three distinct appraisal tasks are performed on the means. In the first, termed *self-efficacies* with respect to means, a decision maker forms judgments of his or her degree of self-competency or confidence in performing each of the alternative instrumental acts in his or her set of choices of means. This observation is based on Bandura's (1977, 1982) work on self-efficacy. Although Bandura's concept of self-efficacy refers to goals and target behaviors, its extension to instrumental acts is straightforward. Whether one will try to pursue a goal or perform an action, we maintain, will depend in part on one's self-efficacy with respect to the means of goal pursuit.

The second appraisal process of means shown in Figure 5 is the formation of *instrumental beliefs*. These beliefs are judgments of the likelihood that each means will lead to achievement of a goal or to performance of a target behavior. Except when one embraces futile causes for symbolic reasons, one generally will not form an intention to act unless one perceives a strong enough connection between the means and goal attainment. Instrumental beliefs have been proposed as necessary determinants of decisions in theories of action considered by philosophers (e.g., Davidson 1980) but have not been addressed previously in attitude theory (cf. Vroom 1964).

The third appraisal process of means addresses the desirability of each means. Some means will be more attractive than others because of the relative pleasure and/or the lack of noxiousness associated with them. Decision makers are hypothesized to evaluate the process(es) needed to achieve a goal. In

[2] Some of the ideas developed here were presented first as an invited address to Division 23 of the American Psychological Association during the annual conference held in New Orleans in August 1989, and are described in Bagozzi (forthcoming).

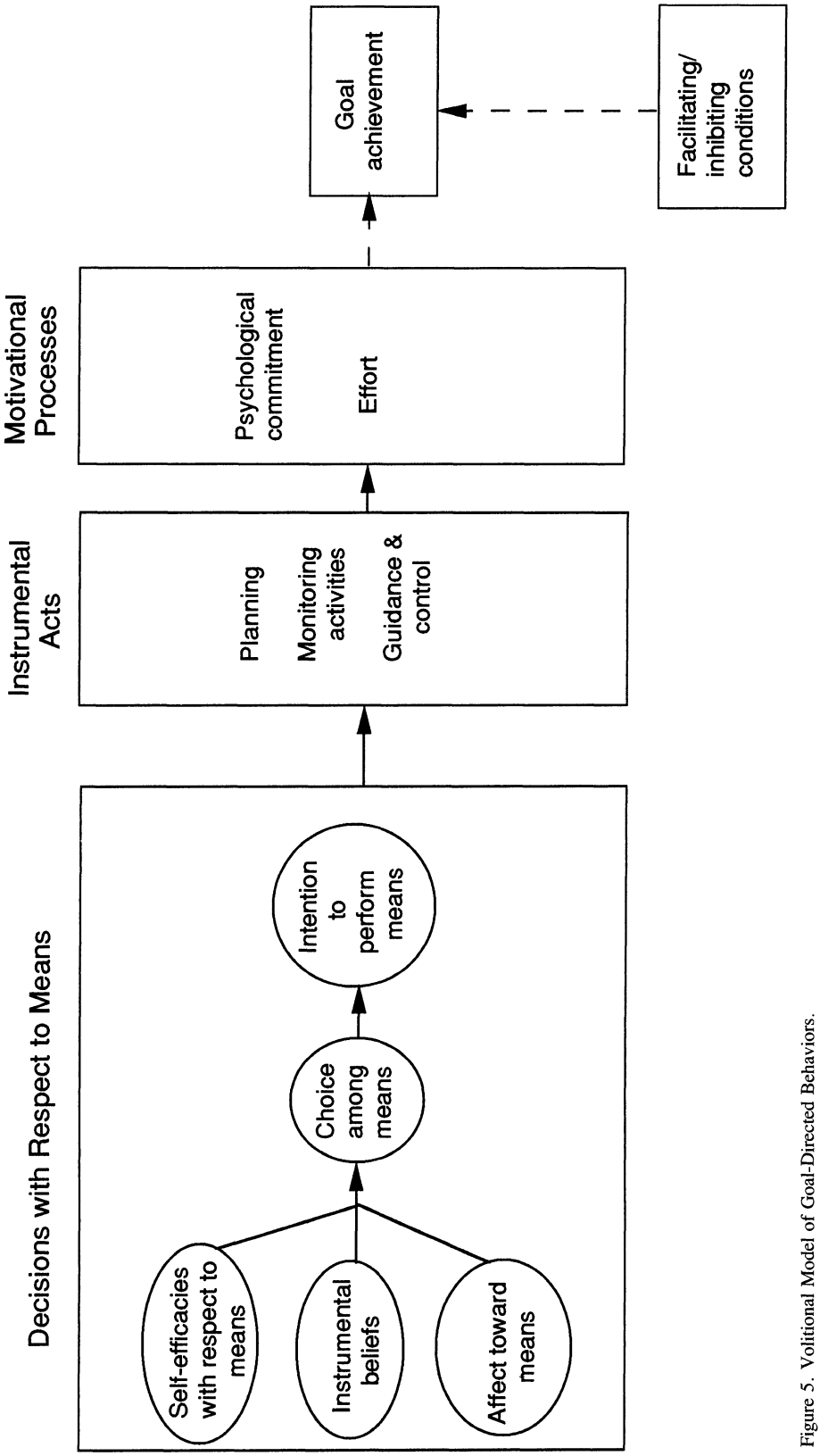

Figure 5. Volitional Model of Goal-Directed Behaviors.

Figure 5 this step is termed *affect toward means*.

The three appraisal processes are shown in Figure 5 as interacting to reflect the possibility that they are necessary criteria in the process of choice among means. The chosen means will be some optimum, or at least satisfying, option(s) scoring high in self-efficacy, instrumentality, and affect. We leave open the question whether the choice itself is implicit, based on the confluence of the three appraisal forces, or whether the decision maker follows an explicit decision process, applying decision rules (e.g., conjunctive, lexicographic) to the criteria (e.g., Payne, Bettman, and Johnson 1988; Svenson 1979). Some goals may require a choice of means that depends on the appraisal processes according to complex decision rules. For example, self-efficacies and instrumental beliefs might interact, and affect might function as a main effect, in their impact on the choice among means. (The exact combinatorial rules applied to the appraisal processes are left open for future research.) In their study of coupon use by consumers, Bagozzi, Baumgartner, and Yi (1992a) found a three-way interaction for the effect of self-efficacy, instrumentality, and affect on actual behavior.

Implementation processes follow closely upon decision making with respect to the means of goal pursuit. These are labeled *instrumental acts* in Figure 5; they consist of planning, monitoring, and guidance and control processes. These processes appear to capture much of the content implied but not specified in Ajzen's (1985, p. 30) concept of a "person's attempt to perform a behavior" and in Bagozzi and Warshaw's (1990) notion of "trying."

After an intention to pursue a goal is formed and a decision to use a particular means is made, various *plans* are formulated. The plans set the stage for instrumental acts needed to implement a contingent or noncontingent intention. Once the instrumental acts have been set in motion, they must be scrutinized to ascertain whether they begin and end when they are supposed to do so, whether they achieve their objectives, and whether new contingencies, impediments, or facilitating factors must be incorporated into the decision making. In Figure 5 the latter processes are termed *monitoring activities*.

The final implementation processes involve activities related to *guidance and control*. Problems in goal pursuit, failures to achieve subgoals, and actual or anticipated extraneous events that threaten plans or goal attainment are acted upon so as to modify one's plans and implementation of instrumental acts. One example of a model that integrates the monitoring and the guidance and control processes suggested here is Miller, Galanter, and Pribram's (1960) Test-Operate-Test-Exit (TOTE) paradigm. The TOTE paradigm, however, fails to consider emotive or motivational processes, which we propose reside in the antecedents to the intention to pursue a goal (i.e., conative and emotional processes with respect to attitudes toward the goal and toward normative pressure), in the choice among means (through affect toward means), and in psychological commitment (discussed below).

Kuhl's (1981, 1985) idea of action control captures part of the emotive aspects of implementation processes, especially for guidance and control activities. Action control is the tendency to approach or avoid decisions or goal-directed behaviors in either static (passive) or dynamic (active) ways. Kuhl believes that action control is a self-regulatory mechanism which helps overcome difficulties inherent in the enactment of action-related mental structures, particularly intentions. People with low self-regulatory capacity are called state-oriented and tend to engage in extensive planning and deliberation before acting. People with high self-regulatory capacity are called action-oriented and tend to act automatically or with little deliberation to enact plans. Kuhl (1985) developed three 20-item forced-choice scales measuring three forms of action control: performance-related, failure-related, and decision-related state versus action orientation. Bagozzi et al. (1992b) found in their study of coupon use that action control moderated the effects of attitudes and subjective norms. People high in action orientation based their decisions more on attitudes, whereas those high in state orientation relied more on subjective norms.

The motivational content of volitional processes has been neglected in attitude theories. Ajzen (1991, p. 181) recognizes that volitions have a motivational component when he notes that intentions "are indicators of how hard people are willing to try, of how much of an effort they are planning to exert." It seems, however, that we ask too much of

the concept of intentions when we expect it to capture directional, planning, and motivational elements in a single construct. Likewise, the frequently used measure of intentions (i.e., the likelihood that one will act) appears to be insufficient to describe the motivational aspect of volitions.

Two dimensions of the motivational nature of volitions, in addition to affect toward means, are psychological commitment and effort (see Figure 5). *Commitment* was defined originally as "the binding of the individual to behavioral acts" (Kiesler and Sakumura 1966, p. 349). We prefer to reserve this concept to refer to the binding of the individual to 1) the decision to try to achieve a goal or perform a behavior and 2) the decision to use a particular means. We reserve the idea of the bond to the action itself as an instance of self-attribution processes (e.g., Bem 1972). These processes occur after an action is performed, and feed back on psychological commitment to pursue a goal. Although organization psychologists have studied commitment extensively, they have neglected its meaning somewhat and instead have focused on its antecedents. For example, commitment has been found to depend on 1) the explicitness of an act, 2) the revocability of an act, 3) the degree of free choice perceived by an individual in performing an act, 4) the importance of an act to the individual, 5) the degree of public visibility of the act, and 6) the number of acts performed (Kiesler 1971; O'Reilly and Caldwell 1981; Salancik 1977). Most of these elements are important for intention formation, and in fact are encompassed in the attitudinal and subjective norm portions of attitude theory and the appraisal processes of means described earlier. Yet something is missing in commitment as it is conceived by organizational psychologists.

The meaning of commitment that we prefer is similar to Abelson's (1988) notion of conviction, which he described as "the phenomenology of having a strong attitude" (p. 268). Specifically we believe that Abelson's ideas of emotional commitment and ego preoccupation, two of three empirical subdimensions of attitudinal conviction which he found, can be adapted to represent the commitment to one's intention to try to pursue a goal and one's commitment to means. Emotional commitment involves a subjective certitude and might be expressed by statements such as "I can't imagine ever changing my intention to do X," "My intent was well thought through," and "My decision is a very good one." Ego preoccupation might be reflected in such statements as "My intention to do X is very important to me" and "I am committed to carrying out my intention." We hypothesize that the degree of commitment to one's decisions reflects a motivational aspect of intention formation heretofore neglected in attitude theory. Some support for the role of commitment can be found in a study by Sherman (1980), in which the very act of estimating one's likelihood of acting led to increased commitment for three behaviors studied (see also Locke, Latham, and Erez 1988; Meyer et al. 1989). Likewise it is possible to interpret Bagozzi and Yi's (1989) study of the degree to which intentions are well-formed, which they measured with items indicating the degree of confidence in one's intentions, as supporting a role for commitment in sustaining the pursuit of goals.

These notions of commitment function *after* the decision to pursue a goal arises. Commitment processes of a different kind are important *before* the intention to pursue a goal forms. Following Burke and Reitzes (1991), we believe that commitments to role-identities function as impetuses to pursue a goal and reinforce one's self-image. Commitments to role-identities also can sustain one's actual goal pursuit insofar as they confirm and support one's self-image.

The role of *effort* can be seen in Heider's (1958) consideration of trying, which he viewed as a motivational factor with directional and strength elements. Heider believed that intention was the directional aspect and exertion the strength aspect. Along with ability and environmental factors, he hypothesized that trying was a key determinant of action. Apparently in the years following publication of Heider's pioneering book, the exertion or strength aspects of trying never were incorporated into attitude theory, and the directional element was translated simply into the likelihood that one intends to act. In addition, a statement in an early article by Allport (1947) appears to have set the tone for this narrow view of intentions: "Let us define intention simply as *what* the individual is trying to do" (p. 186). This point of view was largely adopted by Heider (1958, pp. 83, 108). We think this viewpoint begs the

question of the meaning of volitional processes and instead focuses too much on its referent.

Another motivationlike constituent of volitions concerns the inertial properties that arise when an actor forms certain cognitive representations at various stages in goal pursuit. Under certain conditions, for instance, intentions form when a person imagines himself or herself attempting to perform a behavior (Anderson 1983), and self-schemata function to reinforce one's commitment to pursue a goal and/or to use a particular means (Markus 1977). These factors solidify decision making and maintain the momentum established through the initiation of instrumental acts. Closely related to this phenomenon and to the operation of monitoring processes and guidance and control activities is the notion of scripts. Once an intention to pursue a goal and/or employ a means is formed, it tends to continue unabated unless an unexpected event intervenes. This property of volitions functions in a self-fulfilling way, and some authors have made it a defining quality of intentions: "[B]ehavioral intentions are instructions people give to themselves to behave in certain ways . . . (and) involve ideas such as 'I must do X,' 'I will do X,' and 'I am going to do X'" (Triandis 1980, p. 203; see also Shank and Abelson 1977).

Goal achievement is not influenced solely by volitions but depends jointly on facilitating or inhibiting factors in the goal environment. These are termed "actual control" by Ajzen (1985), "resources" by Liska (1984), and "facilitating factors" by Triandis (1977). We use dashed arrows in Figure 5 to suggest that volitional processes and facilitating/inhibiting conditions interact to determine goal achievement. The role of facilitating and inhibiting conditions has been investigated only recently in the context of attitude theory (e.g., Ritter 1988).

In sum, the model of volitions outlined here attempts to explicate the processes that occur between intentions and goal-directed behaviors. These processes reflect the cognitive and emotional or motivational self-regulatory activities needed to enact one's intentions.

SUMMARY AND CONCLUSIONS

Our approach in this essay follows recent observations by one scholar in attitude theory, who forecasts "a renewal of substantial advances in attitude research, particularly in clarifying the content, structure, and functioning of attitudinal systems" (McGuire 1985, p. 304). In the long run, all theories either are replaced completely by new theories or are supplemented or modified to provide deeper insights into a never-ending evolution of theory development. Our purpose has been to reformulate the theories shown in Figure 1.

We have suggested that each of the key links in attitude theory needs refinement. Attitudes, subjective norms, and intentions are central elements in the explanation of action, but if each is to produce the predicted effects, certain self-regulatory processes are required. Generally the self-regulatory mechanisms encompass the following: appraisal processes → emotional reactions → coping responses.

With regard to the attitude-intention relationship, self-regulation is accomplished through conative processes and emotional responses stemming from outcome-desire interactions (i.e., outcome-desire conflict, fulfillment, avoidance, or pursuit). Appraisals of outcome-desire units lead to specific emotions and in turn stimulate coping responses of intentions directed toward specific actions.

The subjective norm-intention relationship is also hypothesized to be governed by cognitive and emotional self-regulatory processes. These reside in the integration of one's own with significant others' expectations and feelings with respect to the shared moral or social meaning of a focal act. Typically a social actor must reconcile specific negative feelings toward deviant others and a deviant self with positive feelings toward conforming others and a conforming self. Outcome-identity appraisals are associated with particular emotions which guide specific intentions that reinforce one's self-identity.

Finally, the intention-behavior relationship, particularly for goal-directed behaviors, is predicated on decisions with regard to means, instrumental acts, motivation, and conditions peculiar to the actor (e.g., abilities, liabilities) or the situation (e.g., facilitators, inhibitors). Some of these are cognitive processes such as judgments of self-efficacy and instrumentalities concerning means, as well as planning, monitoring, and guidance and control activities. Others are emotional or motivational in

content, such as affect toward means, psychological commitment, and effort.

Because the theory of self-regulation is more complex than current theories, it is useful to place its arguments in perspective.[3] The theories of reasoned action and planned behavior, and to a lesser extent the theory of trying, are reductionistic. That is, they use global or summary *psychological* variables to explain *social* action. Implicit in the theories is the assumption that individual psychological reactions become aggregated into singular constructs. For example, many beliefs and evaluations are translated into a global, unidimensional attitude. Likewise, the theories are noncontingent in the sense that attitudes, subjective norms, and intentions are presumed to function in all contexts, and no conditions are specified within the theories to explain when the components do or do not apply. Attitude theories, as currently formulated trade specificity for parsimony. This is both their strength and their Achilles' heel.

The theory of self-regulation developed in this article rejects reductionism and proposes a finer-grained alternative. We forgo parsimony in order to achieve a fuller explanation and understanding of social action and to enhance prediction. To do this, we broaden and deepen attitude theory to encompass specific motivational, social, and decision processes not included in current theories of attitude. By simplifying the determinants of action into a small number of unidimensional, global variables, current theories lose many of the qualities that constitute social action. We hypothesize a number of discrete appraisals which combine with conations to define classes of contingencies for action but which are obscured in current theories because the processes are lumped together under undifferentiated, summary attitudes and subjective norms. The specific appraisals and conations, in turn, are shown to be functions of unique generating conditions and to result in particular emotional and coping responses. In this sense, conditions for intention formation and action are integral parts of the theory.

The content of current attitude theories is criticized for presenting neither necessary nor sufficient reasons for the formation of intentions and the initiation of action. The missing motivational processes in current theories are specified in our theory of self-regulation and are hypothesized to be based on outcome-desire, outcome-identity, and means-appraisal processes. Moreover, the theory of self-regulation is more "social" than existing theories in the sense that interpersonal emotions and mutual expectations and role identities are parts of the specification. A final benefit of the theory is that it applies to a wider range of empirical phenomena than do current theories of attitude.

For too long, attitude theory has confounded evaluative or appraisal processes with emotional responses. At the same time, it is asking too much of the concept of attitude and its measures to hope that they will capture the numerous, discrete, and varied qualities of affective experience through an aggregate bipolar representation. Attitude theory also has neglected for too long the motivational processes governing decisions and stimulating action. Further, it has reduced the richness of social behavior to the psychological depository of two summary constructs: global attitudes and subjective norms. We hope that the ideas put forth in this article—which are embodied in distinct sequences of appraisal processes → emotional reactions → coping responses and which result in contingent hypotheses—will add to our understanding of social action.

[3] The ideas presented here were stimulated by comments made by a reviewer.

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