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An Attributional Theory of Achievement Motivation and Emotion

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A theory of motivation and emotion is proposed in which causal ascriptions play a key role. It is first documented that in achievement-related contexts there are a few dominant causal perceptions. The perceived causes of success and failure share three common properties: locus, stability, and controllability, with intentionality and globality as other possible causal structures. The perceived stability of causes influences changes in expectancy of success; all three dimensions of causality affect a variety of common emotional experiences, including anger, gratitude, guilt, hopelessness, pity, pride, and shame. Expectancy and affect, in turn, are presumed to guide motivated behavior. The theory therefore relates the structure of thinking to the dynamics of feeling and action. Analysis of a created motivational episode involving achievement strivings is offered, and numerous empirical observations are examined from this theoretical position. The strength of the empirical evidence, the capability of this theory to address prevalent human emotions, and the potential generality of the conception are stressed.

In 1645, Miyomota Musashi was contemplating the causes of his past success as a warrior. In *A Book of Five Rings* he mused,

> When I reached thirty I looked back on my past. The previous victories were not due to my having mastered strategy. Perhaps it was natural ability, or the order of heaven, or that other schools' strategy was inferior. (1645/1974, p. 35)

About 275 years later, and approximately 11,000 miles away, the editors of *Scientific American* were wondering why America was flourishing. They reasoned, "The wealth and general prosperity of the country are largely due to the intelligence and energy of its people, but it can hardly be disputed that it is equally due to the natural wealth of the country" (Staff, 1926, p. 228). Unfortunately, battles are lost as often as they are won, and countries undergo economic decline as well as enrichment. During our recent financial recession the *Los Angeles Times* reported,

> Timber industry experts blame high interest rates, the housing slump, tough logging regulation, and expansion of the Redwood National Park for their sorry state. Tim Skaggs, the union business agent, shrugged. 'You could spend a lifetime fixing blame,' he said. (Martinez, 1982, Pt. 5, p. 1)

And even the former coach of my favorite football team found it necessary to soul search about causality following a series of losses. Again from the *Los Angeles Times:*

> Here it is Thanksgiving week, and the Los Angeles Rams are looking like the biggest turkeys in town. Coach Ray Malavasi has eliminated bad luck, biorhythms, and sunspots as the reasons why his football team has lost 9 of its last 10 games. Now he's considering the unthinkable possibilities that: (a) he has lousy players or (b) they aren't really trying. (Robert, 1982, Pt. 3, p. 3)

Why this constant pursuit of "why"? A number of explanations come to mind (see Forsyth, 1980; Weiner, 1985). We might just want to know, that is, to understand the environment, to penetrate ourselves and our surroundings. This familiar motivational interpretation is known as the principle of mastery (White, 1959). In addition, it clearly is functional to know why an event has occurred. As Kelley (1971) stated, "The attributor is not simply an attributor, a seeker after knowledge; his latent goal in attaining knowledge is that of effective management of himself and his environment" (p. 22). Once a cause, or causes, are assigned, effective management may be possible and a prescription or guide for future action can be suggested. If the prior outcome

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was a success, then there is likely to be an attempt to reinstate the prior causal network. On the other hand, if the prior outcome or event was undesired—such as exam failure, social rejection, political loss, or economic decline—then there is a strong possibility that there will be an attempt to alter the causes to produce a different (more positive) effect.

Desire for mastery and functional search, two of the generators of causal exploration, do not seem to specifically characterize one geographical area or one period of human history. The Japanese warrior in the Middle Ages and today's union representative are engaged in the same endeavor: attempting to assign causality. Indeed, one might argue that adaptation is not possible without causal analysis. The warrior needs to know why he is winning battles so he can survive the next one, just as the union representative needs to explain why the industry is doing poorly in order to urge wiser actions in the future. Because of the apparent pancultural, timeless aspect of causal search and exploration, and because of the evident adaptive significance of this activity, causal ascriptions are proposed to provide the building blocks for the construction of a theory of motivation and emotion.

This article advances an attributional theory of motivation and emotion, with achievement strivings as the theoretical focus. Initially, the most salient causes of success and failure in achievement-related contexts are identified. The basic properties of these causes, or the structure of causal thinking, is then determined from both a dialectic and an empirical perspective. Three causal dimensions are discovered: locus, stability, and controllability. The structure of causal thinking is next related to emotion and motivation. Thus, this article progresses from a description of causal perceptions to causal structure, and then from causal structure to an examination of the dynamics of action. It is documented that causal stability influences changes in goal anticipations, while the three causal dimensions determine the emotional experiences of anger, gratitude, guilt, hopelessness, pity, pride, and shame. Guided by Expectancy × Value theory, I presume that expectancy and affect direct motivated behavior. Examples of research on the disparate topics of parole decisions, smoking cessation, and helping behavior suggest the generalizability of the theory beyond the achievement-related theoretical focus.

Perceived Causes of Success and Failure

In the opening paragraphs of this article, far-ranging examples of causal search are provided. Many investigations have been conducted that more systematically examine causal perceptions, particularly the perceived causes of success and failure in achievement-related situations. Two appropriate research procedures have been followed. In one, subjects are provided only with outcome information, namely, that success or failure has taken place. The outcome might be imagined, induced, or have occurred in a real setting, and might pertain to the subject or to another who is being judged. The subjects are then asked to explain the outcome, using a free-response procedure where the possibilities that come to mind are listed. In a related methodology, participants are provided with a large list of causes and rate the contribution of each cause to the outcome. These causes often were ascertained in pilot research using a free-response methodology, and represent the dominant perceptions or embracing categories.

A summary of 10 pertinent studies is presented in Table 1. Table 1 reveals the source of the data, the characteristics of the sample and task, and the four most dominant causal ascriptions for success. The data for failure reveal an identical story and are not presented. The message of Table 1 is clear, particularly inasmuch as the research investigations made use of a variety of types of subjects judging a variety of achievement situations, and involving the self or another. A virtually infinite number of causal ascriptions are available in memory. However, within the achievement domain, a relatively small number from the vast array tend to be salient. The most dominant of these causes are ability and effort. That is, success is ascribed to high ability and hard work, and failure is attributed to low ability and the absence of trying. This holds true for the majority of cultures that have been examined (see Triandis, 1972). The economy or simplicity in causal thinking evident in the achievement domain appears in the explanation of other outcomes, such as wealth and poverty (Feather & Davenport, 1981; Furn-

ham, 1982a, 1982b) and affiliative acceptance and rejection (Anderson, 1983a; Sobol & Earn, in press). However, relatively few studies have been conducted outside of achievement-related contexts.

The Structure of Perceived Causality

I now turn from causal description and identify the underlying structure of perceived causality. A reasonable initial question to raise is why does one want to determine causal structure? What purpose or role does this play in the goal of theory construction? In response to this query, consider that, within any particular activity, a myriad of distinct causal explanations are possible. Furthermore, for example, the causes of success and failure at achievement-related activities, such as ability and effort, may be quite unlike the perceived causes of social acceptance and rejection, such as personality or physical attractiveness. One puzzle that arises is the relation or the comparability between the various causal explanations—in what way(s) are ability and effort, or ability and physical beauty, alike and in what way(s) do they differ? A taxonomic structure enables this question to be answered, for by finding the underlying properties of causes, or their common denominators, previous incomparable qualitative distinctions can be replaced with quantitative causal comparisons. For example, rather than merely being *different,* both ability and physical beauty may be considered properties of the actor and thus are similar, whereas they both differ from a cause

Table 1
Investigations of the Perceived Causes of Success and Failure

Experiment	Subjects	Perspective	Task	Dominant attributions
Frieze (1976)	College students	Self and other	Hypothetical school and game performance	Effort, ability, luck, and other persons
Elig & Frieze (1979)	College students	Self	Anagrams	Task, ability, stable effort, and mood
Frieze & Snyder (1980)	1st–5th graders	Other	Hypothetical academic test, art project, sports, and game	Unstable effort, ability, interest, and task
Cooper & Burger (1980)	Teachers	Other	School performance of students	Typical effort, academic ability, immediate effort, and attention
Burger, Cooper, & Good (1982)	Teachers	Other	School performance of students	Ability, immediate effort, stable effort, and attention
Anderson (1983a)	College students	Other	Variety of hypothetical situations	Behavioral preparation, experience and skill, effort level, and general knowledge
Willson & Palmer (1983)				
Study 1	College students	Self	School exam	Effort, luck/chance, task characteristics, and interest
Study 2	College students	Self	School exam	Effort, ability, task characteristics, and interest
Bar-Tal, Goldberg, & Knaani (1984)	7th graders			
Study 1	Advantaged students	Self	Academic test	Test preparation, effort for study, concentration during study, and teacher's ability
Study 2	Disadvantaged students	Self	Academic test	Test preparation, concentration during study, effort for study, and self-confidence

that is not a property of the actor, such as the objective ease or difficulty of a task. This type of analysis facilitates empirical study so that other associations may be discovered that contribute to the meaning and significance of a cause.

Logical Analysis of Causal Structure

The first systematic analysis of causal structure was proposed by Heider (1958). Rightly called the originator of the attributional approach in psychology, Fritz Heider has been in the background of much of the present theory. The most fundamental causal distinction made by Heider (1958) was stated as follows: "In common-sense psychology (as in scientific psychology) the result of an action is felt to depend on two sets of conditions, namely, factors within the person and factors within the environment" (p. 82).

Since the early 1950s, psychologists have embraced an internal–external distinction (see Collins, Martin, Ashmore, & Ross, 1974). But the domination of internal–external comparisons in psychology arrived with the work of Rotter (1966), for his classification of individuals into internals and externals became a focus for research. Thus, the analysis of the structure of causality logically began with an internal–external (locus) dimension.

The argument was then made by Weiner et al. (1971) that a second dimension of causality was required. The reasoning was that, among the internal causes, some fluctuate, whereas others remain relatively constant. For example, ability (or, more appropriately, aptitude) is perceived as a constant capacity; in contrast, other causal factors including effort and mood are perceived as more variable, changing from moment to moment or from period to period. Among the external causes the same reasoning applies. For example, success in rowing across a lake may be perceived as due to the unchanging narrowness of the lake or because of the variable presence of wind. Weiner et al. (1971) thus characterized the causes they thought were most dominant in achievement-related contexts, namely, ability, effort, task difficulty, and luck, within a 2 × 2 categorization scheme. Ability was classified as internal and stable, effort as internal and unstable, task difficulty was thought to be external and stable, and luck was considered external and unstable.

It is now realized that there are many shortcomings of this classification (see Weiner, 1983). Ability may be perceived as unstable if learning is possible; effort often is perceived as a stable trait, captured with the labels of lazy and industrious; tasks can be changed to be more or less difficult; and luck may be thought of as a property of a person (lucky or unlucky). Thus, the causes within the four cells did not truly represent the classification system (i.e., they did not conform to the phenomenology of the naive attributor). Less ambiguous entries might have been aptitude, temporary exertion, objective task characteristics, and chance (see Weiner, 1983). Hindsight, however, is better than foresight, and the problems so evident now were not fully recognized in 1971.

A third dimension of causality was then established with the same deductive reasoning that led to the identification of the stability dimension. Rosenbaum (1972) recognized that mood, fatigue, and temporary effort, for example, all are internal and unstable causes. Yet they are distinguishable in that effort is subject to volitional control—an individual can increase or decrease effort expenditure. This is not typically true of mood or the onset of fatigue, which under most circumstances cannot be willed to change. The same distinction is found among the internal and stable causes. Some so-called traits such as laziness, slovenliness, or tolerance often are perceived as under volitional or optional control, whereas this is not characteristic of other internal and stable causes such as math or artistic aptitude and physical coordination.

The identification of this property, now called *controllability* (Weiner, 1979), enlightened and solved some issues while creating other difficulties. Among the illuminated topics was the distinction by Rotter (1966) between internal versus external perceptions of control of reinforcement. Within the three-dimensional taxonomy, two of the proposed causal properties are labeled *locus* and *control.* A cause therefore might be internal yet uncontrollable, such as math aptitude. If failure is ascribed to poor aptitude, then the performance is perceived as determined by skill and ability. According to Rotter, this indicates that the outcome is perceived as subject to internal control. Yet a genetically determined aptitude will not be perceived as controllable by a failing

math pupil. Thus, confusion is evident in the Rotter one-dimensional taxonomy. Locus *and* control, not locus *of* control, describe causal perceptions. To avoid confusion, the locus dimension should be labeled *locus of causality.*

Empirical Analysis of Causal Structure

The logical analysis of causal structure has an inherent limitation: Causal dimensions are derived from attribution theorists, rather than from their subjects. It is conceivable that each theorist might have his or her own rational scheme of causal organization and that these postulated structures will not be identical between theorists nor the same as those of the layperson. Empirical evidence therefore is needed concerning the organization or the interrelations in causal structure. Three mathematical techniques have been used to analyze the responses of research participants for underlying causal structure: factor or cluster analysis (Foersterling, 1980; J. Meyer, 1980; J. Meyer & Koelbl, 1982; Wimer & Kelley, 1982), multidimensional scaling (Falbo & Beck, 1979; Lee, 1976; Michela, Peplau, & Weeks, 1982; Passer, 1977; Passer, Kelley, & Michela, 1978; Stern, 1983), and correlations with a priori schemes (Stern, 1983).

A brief summary of the empirical research concerning causal structure is shown in Table 2. Table 2 includes 7 of the 10 pertinent investigations already cited. The research of Foersterling (1980) and Lee (1976) is omitted because they only examined the ratings of four causes (they did find the locus and stability dimensions). In addition, the study by Falbo and Beck (1979) is excluded because of methodological flaws (see Michela et al., 1982; Weiner, 1983).

It is evident from Table 2 that all studies, with the possible exception of Passer et al. (1978), identify a locus dimension of causality. Given the prominence of this psychological property, perhaps this finding increases one's belief in the entire set of data. Turning to the stability dimension, investigators with the exception of Passer (1977), and perhaps Passer et al. (1978) and Wimer and Kelley (1982), find a temporary–enduring property of causality. Finally, all of the investigations save those by Michela et al. (1982) and Wimer and Kelley (1982) describe a dimension called either *control* or *intent* (a possible distinction between these labels will be examined). In three investigations other dimensions have emerged, but they are not manifest in more than one study.

The data therefore strongly support the contention that there are three dimensions or properties of perceived causality, which is consistent with the causal properties derived from the logical analysis (although it must be recognized that even in the empirical studies the dimensions require a subjective or experimenter labeling, and at times the empirical methodologies have imposed constraints on the causal perceptions of the subjects). The empirical dimensions that have emerged are reliable, general across situations, and meaningful. Other suggested dimensions are either unreliable (perhaps intimating that they are specific to a particular context) and/or are not clearly meaningful, as the unnamed factor isolated by J. Meyer and Koelbl (1982).

It also seems to be the case that the structure of causality is not merely a convenient classification system imposed by attribution theorists (see Schütz, 1967, p. 59). The scaling and the correlational procedures, as well as those of factor analyses, yielded comparable dimensions corresponding to those that evolved from the logical thinking of attribution theorists. The dimensions, therefore, may be considered part of lay psychology. Finally, there is a relative simplicity in the organization of causal thinking, just as there is in the selection of specific causes.

Causal Comparisons

Recall that one of the purposes of creating a causal taxonomy is to enable the investigator to compare and contrast causes. Consider, for example, low math aptitude and physical unattractiveness as respective causes of achievement failure and social rejection. Both appear to be internal, stable, and uncontrollable causes. Similar correspondence can be found between other causes of achievement and social failure such as "the school has hard requirements" versus "religious restrictions on dating" (both being external, stable, and uncontrollable). This demonstrates that the structural analysis is not limited to achievement

contexts, which is an important consideration in the search for theoretical generality.

Issues Concerning Causal Structure

Although the rational (deductive) and empirical (inductive) approaches converged and identified the same three causal properties, a number of pertinent questions nevertheless remain to be addressed. Definitive answers can be provided only to some of these questions.

Might there be less than three dimensions? This question is guided by a reliable finding that the dimensional ratings of causes are cor-

Table 2
Empirical Studies of Causal Dimensions

			Dimensions			
Experiment	Procedure	Domain	Locus	Stability	Control (intent)	Other
Meyer, J. (1980)	Factor analysis	Achievement (hypothetical exam of others)	X	X	X	
Meyer, J. & Koelbl (1982)	Factor analysis	Achievement (examination performance)	X	X	X	Unnamed
Wimer & Kelley (1982)	Factor analysis	All	X[a]	X?		Good–bad; complex–simple; motivation
Passer (1977)	Multidimensional scaling	Achievement (hypothetical exam performance)				
		Failure	X		X	
		Success	X		X[b]	
Passer, Kelley, & Michela (1978)	Multidimensional scaling	Marital conflict (hypothetical other)				
		Actor			X	Attitude toward partner
		Partner	X?	or X?		Attitude toward partner
Michela, Peplau, & Weeks (1982)	Multidimensional scaling	Loneliness (hypothetical other)	X	X		
Stern (1983)	Correlation with a priori scheme using concept formation tasks	Achievement (academic & sports)				
	Free-sort		X	X	X	
	Sort-resort		X	X	X	
	Sequential sort		X	X	X	
	Graph building		X	X	X	
	Multidimensional scaling		X	X	X	

[a] Unipolar.
[b] Only internal causes.

related. Consider, for example, a representative study by Anderson (1983a). Anderson had subjects generate causes for success and failure in both achievement and social contexts. The 63 most dominant causes were then rated by other subjects on the three causal dimensions. These ratings were highly intercorrelated, suggesting that the dimensions are not independent and that there may be less than three underlying causal properties.

A number of arguments can be marshaled against this position. Many causal perceptions, particularly in social contexts, implicate traits. Traits tend to be perceived as both internal and stable. Inasmuch as a preponderance of causal ascriptions then fall within an internal–stable quadrant, the locus and stability dimensions will be correlated in the causal ratings.

However, as also noted by Anderson (1983a), a failure of orthogonality at the empirical level does not invalidate separation at the conceptual level. For example, height and weight are positively correlated but nonetheless are distinct characteristics; certainly tall, light individuals as well as those who are short and heavy can be identified. As Passer et al. (1978) state, "There is no necessity that the elements used in multidimensional scaling be distributed evenly over the space identified by the analysis. In fact, there may be psychological reasons . . . for certain regions of the space not to contain any elements" (p. 961).

Might there be more than three dimensions? Two other properties of causes have been suggested, intentionality (Weiner, 1979) and globality (Abramson, Seligman, & Teasdale, 1978). These are discussed in turn.

The logical analysis of causality strongly hints that intentionality is a causal property, and this label also was suggested in some of the empirical investigations. Consider, for example, a logical examination of effort versus strategy as perceived causes of success and failure. One might succeed because of hard work or because of proper strategy while studying, or fail because of insufficient effort or poor strategy. Failure due to lack of effort meets the criteria to infer personal responsibility, inasmuch as not trying is carried out "purposively, knowingly, recklessly, and/or negligently" (see Fincham & Jaspers, 1980). But these criteria are not met given poor strategy as a cause of failure. One does not purposively or knowingly use bad strategy. The property that perhaps best describes the contrast between effort and strategy has been labeled *intentionality* (Weiner, 1979).

Intent and control generally covary highly, with reported correlations near $r = .90$ (see Anderson, 1983a). Individuals intend to do what is controllable, and can control what is intended. But there are important instances where intent and control are distinguishable. For example, an overachiever might state that he or she intends to take some time off from work, but cannot control his or her working habits. Or, one might not have intended to kill a pedestrian, but should have controlled his or her speeding. The differentiation between intent and control lies at the heart of the distinction between murder and manslaughter.

It seems reasonable, then, to separate control from intent and consider them both dimensions of causality. A difficult conceptual problem, however, is created. A cause is not intentional—intent describes an action, or a motivational state of an organism. One might refer to aptitude as internal, or stable, but can it be described as unintentional? It seems not; intent does not appear to be a characteristic of a cause. But solving this difficult philosophical problem is beyond the scope of this article and, even further, beyond the capability of this writer. Thus, the possibility that intentionality is a dimension of causality is put aside for now.

The contention of Abramson et al. (1978) is that some causes are specific to a situation, whereas others generalize across settings. For example, an individual may perceive failure at math as due to low math aptitude (specific) or to low intelligence (general). Intelligence is perceived as influencing performance in a greater variety of situations than is math aptitude.

The argument in favor of a distinction between general and specific causes certainly cannot be faulted on grounds of face validity. To elevate this distinction to a dimension, however, does pose some problems. A general–specific property has not emerged in a single empirical investigation. Thus, it is not known whether this distinction held by some attribution theorists also is perceived or unknowingly made by the layperson.

When personality psychologists discuss traits, both temporal aspects (consistency over

time) and generalizability (consistency across situations) are considered. In a similar manner, causes can logically be construed in terms of those two characteristics. Globality therefore might be a basic property of causes, but more evidence is needed before this possibility is accepted.

Is the dimensional location of a cause constant? Attributional decisions represent phenomenal causality—the causal world as perceived by the viewer. Perceived causality certainly will differ from person to person and within an individual over occasions. This is true not only for a specific causal inference, but also for the meaning or dimensional location of the cause. For one individual, luck may be perceived as an external, unstable cause of success; for another, luck is conceived as an enduring personal property. Indeed, a cause might convey different meanings in disparate contexts (e.g., effort ascriptions connote greater stability given success than given failure; see Dalal, Weiner, & Brown, 1985). But although the interpretation of specific causal inferences might vary over time and between people and situations, the underlying dimensions on which causes are "understood" or given meaning remain constant. That is, dimensions are conceived as invariant, whereas the location of any specific cause on a dimension is variable (see Weiner, 1983).

Motivational Dynamics of Perceived Causality: Expectancy Change

Thus far it has been suggested that individuals search for causality and that a relatively small number of causes are particularly salient. In addition, causes share three properties (locus, stability, and controllability) and perhaps can be characterized according to intentionality and globality. I now turn from causal description and causal structure to the dynamics of behavior. Two topics are of special importance in the understanding of action tendencies: expectancy and value.

Goal expectancies is a concern that keeps reappearing in the study of motivation. Every major cognitive motivational theorist includes the expectancy of goal attainment among the determinants of action. If one hopes to construct an attributional theory of motivation, it would therefore seem necessary to search for some connection, some linkage, between attributional thinking and goal expectancy.

Two possibilities come to mind. On the one hand, the influence of causal variables on the absolute expectancy of goal attainment could be ascertained. Heider (1958), for example, reasoned that goal expectancies in achievement-related contexts are determined by perceived ability and planned effort expenditure, relative to the perceived difficulty of the task. This is an enticing analysis to follow, inasmuch as attributional concepts already are introduced.

But other theorists have had completely different notions about the antecedents of goal expectancy. Tolman (1925), for example, stipulated that expectancy is a function of the frequency, primacy, and recency of reinforcement. According to Rotter (1966), expectancies are determined by the percentage of reinforcements of a particular response in a particular setting, the percentage of reinforcements of this response in similar situations, and individual differences in the belief that reinforcements are under personal control. And for Atkinson (1964), expectancy is influenced by the number of individuals against whom one is competing, prior reinforcement history, and communications from others concerning the likelihood of success. It therefore is evident that consensus does not exist about the antecedents of goal expectancy, although all theorists would agree that past reinforcement history does play some important role.

A second possibility is initially to find relations between attributions and changes in expectancy, and then use this information to determine the relation between causal ascriptions and absolute expectancy of success. Inasmuch as attributional search is initiated following an outcome—so that change can be examined—this seems to be a promising lead. In addition, perhaps change in goal expectancy, as opposed to absolute expectancy level, is more amenable to a general law that transcends the situational context.

Investigations of Expectancy Change

Three psychological literatures are directly related to changes in goal expectancy, and again the pertinent research has primarily been conducted in achievement-related contexts.

One set of investigations is associated with level of aspiration; the second concerns the effects of outcomes at chance tasks on probabilities of future success; and the third research endeavor is linked with resistance to extinction and beliefs about locus of control.

Level of aspiration. A number of quite replicable findings emerged from level of aspiration research. Among the most important for present purposes is that subsequent aspiration level is in part dependent on the prior outcome. In the vast majority of instances, aspiration increases after goal attainment and decreases if a prior aspiration has not been fulfilled. These so-called goal discrepancies are referred to as "typical" aspiration shifts.

It has been assumed that aspiration level in good part reflects the subjective expectancy of success: The higher the expectancy, the higher the aspiration level. Hence, the aspiration literature can be interpreted as revealing that increments in expectancy follow success, whereas expectancy decrements follow failure. This conclusion also has been documented extensively in contexts where expectancy is directly measured, rather than inferred from statements about goal aspiration (see, e.g., Diggory, Riley, & Blumenfeld, 1960; Montanelli & Hill, 1969; Zajonc & Brickman, 1969).

This is not the complete story, however, for in games of skill "atypical" reactions also are sometimes observed. In these instances, there is a decrease in aspiration level following success and an increase after failure. For example, Lewin, Dembo, Festinger, and Sears (1944) noted,

> In the case of nonachievement which is linked, for instance, to outside disturbances, the subject is not likely to lower his aspiration in a way that he would if he believed that the nonachievement reflected a genuine decrement in his performance ability. (p. 367)

Chance tasks. A divergent pattern of data emerged from research on the subjective probability of success at games of chance. Here the *gambler's fallacy* often is observed. That is, after winning, a loss is expected, and after losing, a win is anticipated (see Cohen & Hansel, 1956). A related phenomenon at games of chance is labeled the *negative recency effect.* This is illustrated in the increased expectancy of a *heads* after the appearance of a *tails* on a coin toss. That is, atypical shifts are frequent at games of chance. There are, however, some exceptions to this general rule. At times, gamblers exhibit the belief that they are on a winning or losing streak and anticipate repetitions of the prior win or loss. Thus, typical shifts also are observed in chance settings, but with less frequency than are atypical shifts. Note that this is the mirror image of the data pattern given skill tasks.

Social learning theory integration. The problem is to create a conceptual framework able to incorporate the observations of typical and atypical shifts in situations of skill and chance. Social learning theorists attempted to do just that, primarily examining resistance to extinction while manipulating skill and chance task perceptions. They contended that expectancy change following success or failure is influenced by the perceived locus of control of the outcome, with internal or personal beliefs about causality (skill tasks) producing typical shifts, while external perceptions of causality (chance tasks) generate atypical shifts. In addition, given that some individuals might perceive skill tasks as determined by chance, and chance tasks as determined by personal factors, occasional reversals in the usual pattern of data would be observed. In sum, social learning theorists were the first to relate the structure of perceived causality (the locus dimension) to expectancy change (see Rotter, 1966).

Attributional Approach to Expectancy Change

In this article I have reasoned, however, that Rotter and his colleagues gave insufficient attention to the richness of causal explanation and confounded dimensions of causality. Ability (skill), in addition to being internal, also is perceived as relatively stable. On the other hand, in addition to being external, luck is perceived as relatively unstable. Hence, ability and luck differ in subjective stability and not merely on the locus dimension of causality. The observed differences in expectancy shifts given skill versus chance tasks may therefore either be attributed to the locus or to the stability dimension of causality.

The attributional position is that the stability of a cause, rather than its locus, determines expectancy shifts. If conditions (the presence or absence of causes) are expected to remain

the same, then the outcome(s) experienced in the past will be expected to recur. A success under these circumstances would produce relatively large increments in the anticipation of future success, and a failure would strengthen the belief that there will be subsequent failures. On the other hand, if the causal conditions are perceived as likely to change, then the present outcome may not be expected to repeat itself and there is likely to be uncertainty about subsequent outcomes or a belief that something different will result. A success therefore would yield no increments in subsequent expectancy and could give rise to decrements in the subjective probability of future success. Similarly, a failure will not augment the belief that there will be future failures.

These principles are able to explain the data in level of aspiration research and in studies involving chance tasks. Success and failure at skill tasks most usually are ascribed to ability and effort. Ability is thought to be a relatively fixed property, and the belief that success was caused by hard work usually results in the intent to again work hard in the future (Dalal et al., 1985). Inasmuch as the causes of a prior success are perceived as relatively stable given skill-related tasks, future success should be anticipated with greater certainty and there will be increments in aspiration level and expectancy judgments. Occasionally, however, outcomes at skill tasks are ascribed to unstable factors, such as the "disturbances" noted by Lewin et al. (1944). In addition, if failure is ascribed to low effort, then the failing person may anticipate working harder in the future. In these circumstances there would be atypical or minimal shifts in expectancy following failure.

Conversely, success at chance tasks tends to be ascribed to an unstable factor. The actor is likely to reason, "I had good luck last time, but that probably will not happen again." Expectancy therefore should not rise and indeed could drop following a positive outcome. But, occasionally, one might conclude that he or she is a lucky or an unlucky person or is on a winning or losing streak. In these instances, the cause of the outcome is perceived as stable, so that typical shifts will be displayed. In sum, the attributional position can account for the observed typical and atypical shifts in chance as well as in skill settings.

These ideas gave rise to a wealth of pertinent research, primarily in achievement-related contexts. Two research strategies were represented—correlational, and the manipulation of causal ascriptions. In the correlational research, subjects were induced to succeed or fail at some laboratory task and their expectancies of future success as well as causal ascriptions were assessed. In the causal manipulation procedure, perceptions of task outcomes as caused by ability, effort, luck, and so forth were induced, and expectancy of success was ascertained following success or failure. Table 3 includes a considerable (but far from complete) sample of investigations reporting that stable, relative to unstable, ascriptions are related to high expectancies of success after goal attainment and to low expectancies of success following a failure. None of the studies are definitive in that often other possible interpretations of the data have not been ruled out; nonetheless, the consistency of the findings is quite compelling.

In addition to the data reviewed in Table 3, a number of "real-life" behaviors without apparent phenotypic overlap have been shown to be genotypically comparable and explainable given an attributional perspective. These studies have taken place in nonachievement as well as in achievement-related contexts. More specifically, for example:

1. Parole decisions are in part based on the perceived stability of the cause of the crime (Carroll, 1978; Carroll & Payne, 1976, 1977). A criminal perceived as committing a crime because of stable causes (e.g., a psychopathic personality) is considered more of a risk than is one perceived as committing a crime because of unstable causes (e.g., temporarily unemployed). In a similar manner, criminals as well as prison officials believe a crime due to stable causes is more likely to be repeated when the offender is released than is a crime perceived as due to unstable causes (Saulnier & Perlman, 1981). Criminals judge the causes of their crimes to be more unstable than do prison-related officials; they also are less likely to expect recidivism.

2. Rejection when soliciting blood from potential donors that is ascribed to unstable causes (poor soliciting strategy, lack of effort) results in higher expectancy of success and greater persistence at solicitation than does re-

jection attributed to stable factors such as an inability to persuade others (Anderson, 1983b; Anderson & Jennings, 1980).

3. Intentions to reenter school after dropping out, to enroll in another psychology course although doing poorly in one, or to resubmit a rejected manuscript for publication are greater when the prior "failures" are ascribed to unstable causes (e.g., need a break from school, poor manuscript reviewers) rather than to stable causes (e.g., cannot benefit from school, poor research training; see Day, 1982; Pancer, 1978; Crittended & Wiley, 1980).

4. When product failure is perceived as due to stable factors (e.g., a bad company), consumers anticipate future product dissatisfaction and express a desire for a monetary refund; if the failure is perceived as due to unstable causes (e.g., bad shipment of goods), then subsequent product satisfaction is expected and there is a preference for product exchange (Folkes, 1984).

Table 3
Research Relating Attributions to Expectations

Experiment	Subjects	Task	Attribution measurement	Expectancy measure
		Correlational studies		
Meyer, W. (1973)	German high school students	Digit–symbol substitution	Percentage rating	Probability of future success
McMahan (1973)	American grammar, high school, & college students	Anagrams	Paired comparison	Confidence of future success
Weiner, Nierenberg, & Goldstein (1976)	American college students	Block design	Within-dimension scale rating	Anticipated performance
Inagi (1977)	Japanese college students	Puzzle	Percentage rating	Probability of future success
Kovenklioglu & Greenhaus (1978)	American college students	Test performance	Paired comparison	Anticipated performance
Ronis, Hansen, & O'Leary (1983)	American college students	Unspecified achievement stories	Dimension scale rating	Confidence in outcome repetition
		Research manipulating attributions		
Rosenbaum (1972)	American college students	Unspecified "project" (hypothetical)	Causes given in description	Expected project outcome
Neale & Friend (1972)	American college students	School exam (hypothetical)	Causes given in description	Anticipated grade
Fontaine (1974)	Australian college students	Unspecified "tasks"	Fictitious ascriptions of others	Expected score
Valle (1974)	American college students	Sales (hypothetical)	Causes given in description	Anticipated performance
Pancer & Eiser (1977)	British college students	Anagrams	Fictitious information from others	Performance prediction
Heilman & Guzzo (1978)	American college students	Job performance (hypothetical)	Causes given in description	Predicted personnel action

Summary and Conclusions

Individuals classify their thoughts into broad categories. Hence, phenotypic dissimilarities might be connotatively, or genotypically, similar. Failure in athletics because of lack of height, failure in math because of low aptitude, failure in politics because of poor charisma, and social rejection because of unattractive features are phenotypically different events with diverse specific causes. Yet the causes are likely to be similarly categorized as enduring or stable. Hence, future hopes in these heterogeneous contexts will be minimized. On the other hand, failure in athletics because of insufficient practice, failure at math because of temporary illness, failure in politics because of a current recession, and interpersonal rejection because the desired partner is ill are diverse events that are likely to be categorized as due to unstable causes. Hopes for the future therefore are likely to be maintained.

The amount, extensity, and consistency of the empirical findings, in conjunction with the logical analysis, documents a fundamental psychological law relating perceived causal stability to expectancy change:

Expectancy Principle. Changes in expectancy of success following an outcome are influenced by the perceived stability of the cause of the event.

This principle has three corollaries:

Corollary 1. If the outcome of an event is ascribed to a stable cause, then that outcome will be anticipated with increased certainty, or with an increased expectancy, in the future.

Corollary 2. If the outcome of an event is ascribed to an unstable cause, then the certainty or expectancy of that outcome may be unchanged or the future may be anticipated to be different from the past.

Corollary 3. Outcomes ascribed to stable causes will be anticipated to be repeated in the future with a greater degree of certainty than are outcomes ascribed to unstable causes.

Motivational Dynamics of Perceived Causality: Affective Reactions

It has been rather definitively documented that causal attributions influence expectancy of success. This is a necessary linkage for the development of an attributional theory of motivation, inasmuch as goal anticipations certainly affect other thoughts and actions. But it also is quite evident that goal expectancies are not sufficient determinants of action. After all, there are an infinite number of actions not undertaken in which expectancy of the goal is absolutely certain.

Both cognitive and mechanistic conceptions of behavior have identified another class of variables with motivational impact. They are called *goal incentives,* or the properties of the goal object. Motivation is believed to be determined by what one can get (incentive) as well as by the likelihood of getting it (expectancy). This is the essence of the position of Expectancy × Value theorists.

There seems to be no blatant reason to believe that objective value (i.e., the inherent properties of a goal object) is influenced by perceived causality—the reason why the goal was reached. A dollar has the value of one dollar whether it is attained because of good fortune, hard work, or as a gift from another. On the other hand, instead of conceiving incentive values in terms of the objective properties of the goal, consider *incentive* to mean the consequences of goal attainment for the actor, or the subjective value of the goal. We prefer a dollar to a nickel because the anticipated consequences will make us happier, give greater satisfaction, and the like. Although causal ascriptions do not influence the objective properties of goal objects, they do determine or guide emotional reactions, or the subjective consequences of goal attainment. For example, a dollar attained because of good luck could elicit surprise; a dollar earned by hard work might produce pride; and a dollar received from a friend when in need is likely to beget gratitude. In a similar manner, a gift from a beloved will have different affective significance than does this same gift from an enemy (Heider, 1958). These diverse affective reactions could generate quite disparate actions. For example, gratitude but not pride might give rise to reciprocal helping behavior. It therefore seems reasonable to pursue the idea that causal ascriptions influence emotions, and that emotional reactions play a role in motivated behavior.

The Attribution–Emotion Process

The field of emotion is vast and complex; the formulation of a complete theory of emo-

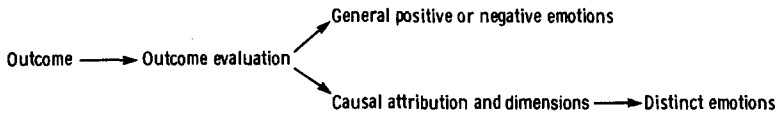

Figure 1. The cognition–emotion process.

tion is not my goal. Rather, the aims of this section of the article are to offer an attributional view of the emotion process and to propose and document laws linking attributional thinking and specific feelings (for a discussion of the assumptions guiding this approach to emotion see Weiner, 1982; Weiner & Graham, 1984).

Most emotion theorists with a cognitive persuasion conceive of emotional experience as a temporal sequence involving cognitions of increasing complexity. Arnold (1960) and Lazarus (1966), for example, contend that the perception of a distal stimulus gives rise to a primary appraisal and to a rather primitive emotional reaction. Primary appraisal is believed to be followed by a secondary appraisal that often involves ego-related or more advanced psychological mechanisms such as ego defenses. The elicitation of these processes can intensify or modulate the emotional experience or alter the quality of the emotion.

Schachter and Singer (1962) proposed the most oft-cited emotion sequence. They hypothesized that the initial step in this sequence is the experience and recognition of nondifferentiated internal arousal. Then the source of the arousal is determined on the basis of situational cues, and this cognitive labeling plus the arousal give rise to emotional states (although the cognition of the arousal and the cognition of the source of the arousal often take place simultaneously).

The attributional framework advanced here also assumes a sequence in which cognitions of increasing complexity enter into the emotion process to further refine and differentiate experience. It is contended that, following the outcome of an event, there is a general positive or negative reaction (a "primitive" emotion) based on the perceived success or failure of the outcome (the "primary appraisal"). These emotions, which include *happy* for success and *frustrated* and *sad* for failure, are labeled as *outcome dependent–attribution independent,* for they are determined by the attainment or nonattainment of a desired goal, and not by the cause of the outcome.

Following outcome appraisal and the immediate affective reaction, a causal ascription will be sought. A different set of emotions is then generated by the chosen attribution(s). For example, success perceived as due to good luck produces surprise, whereas success following a long-term period of effort expenditure results in a feeling of calmness or serenity. Emotions such as surprise and serenity are labeled *attribution dependent,* inasmuch as they are determined by the perceived cause of the prior outcome. Note that increasing cognitive involvement generates more differentiated emotional experience (for somewhat related conceptions see Abelson, 1983; Roseman, 1984; C. Smith & Ellsworth, 1985).

Additionally, causal dimensions play a key role in the emotion process. Each dimension is uniquely related to a set of feelings. For example, success and failure perceived as due to internal causes such as personality, ability, or effort respectively raises or lowers self-esteem or self-worth, whereas external attributions for positive or negative outcomes do not influence feelings about the self. Hence, self-related emotions are influenced by the causal property of locus, rather than by a specific cause per se.

The cognition–emotion process suggested in the above paragraphs is depicted in Figure 1. It is evident from Figure 1 that this approach to emotions assumes that feelings arise from how an event is construed or evaluated. The figure also indicates that general and distinct emotions are independent, but this remains to be fully resolved (see, e.g., McFarland & Ross, 1982).

The cognition–emotion process that has been proposed provides the focus and outline for the following pages. I first briefly examine outcome-related affects and then consider in detail the associations between causal dimensions and affects, ignoring here the relations between specific causes and emotional reactions (see Weiner, Russell, & Lerman, 1978,

1979). I focus on dimension-linked affects because they have had the most extensive empirical support. These associations, just as the one between causal ascription and expectancy change, form powerful and general laws.

Outcome-Generated Emotions

Two research paradigms, one simulational and reactive, the other retrospective and operant, were first used to document the associations between outcomes and emotions. Again these studies were conducted in achievement-related contexts. In the former paradigm, participants were asked to imagine that a student succeeded or failed an exam for a particular reason, such as hard work or bad luck. The subjects then reported the intensity of the affective reactions that they thought would be experienced in this situation (Weiner et al., 1978). Intensity was indicated on rating scales for a number of preselected affects. In the second paradigm, participants were asked to recall a time in life when they succeeded or failed for a specified reason. They also recounted the affects they experienced at that time (Weiner et al., 1979).

These studies revealed that one determinant of affect is the outcome of an action: Success at achievement-related activities was associated with the affect of *happy* regardless of the cause of that outcome, and failure seemed to be related to frustration and sadness. Thus, for example, given athletic competition, one tends to experience happiness following a victory whether that win was due extra training, the poor play of the competitor, or good luck. Outcome-dependent affects also have been documented in quality of life research. Investigators have reported that satisfaction, unhappiness, and frustration are related to objective life outcomes, such as income level, independent of attributions (see Bryant & Veroff, 1982; E. Smith & Kluegel, 1982). In addition, outcome-dependent affects have been postulated in the interpersonal domain. Kelley (1983) stated,

> I am pleased or displeased by the more specific and concrete things I experience [in close relationships]. So when my wife prepares a picnic lunch for the afternoon's outing, my pleasure–displeasure comes partly from the quality of the lunch itself, and also (as a partly separate matter) from the quality of love and thoughtfulness I attribute to her effort. (p. 15)

Dimension-Related Emotions

As previously indicated, the bulk of the pertinent attribution–emotion research relates causal dimensions, rather than specific causes, to affects. The emotion of pride and feelings of self-esteem are linked with the locus dimension of causality; anger, gratitude, guilt, pity, and shame all are connected with the controllability dimension; and feelings of hopelessness (hopefulness) are associated with causal stability. These relations are described here, but without detailed documentation (see Weiner, 1982, and Weiner & Graham, 1984, for fuller discussions).

Pride (self-esteem). A relation between causal locus and self-esteem has been long recognized by many well-known philosophers. Hume, for example, believed that what one is proud of must belong to the person; Spinoza reasoned that pride consists of knowing one's merits; and Kant nicely captured the locus–pride union by noting that everyone at a meal might enjoy the food, but only the cook of that meal could experience pride.

It is therefore reasoned that pride and positive self-esteem are experienced as a consequence of attributing a positive outcome to the self and that negative self-esteem is experienced when a negative outcome is ascribed to the self (Stipek, 1983; Weiner et al., 1978, 1979). The relation between causal locus and feelings of self-worth also is part of naive psychology and is used by the layperson to influence the emotions of others. Thus, individuals tend to communicate ascriptions external to the requester when rejecting that person for a social engagement so that "feelings of self-esteem are not hurt" (e.g., they indicate that they are ill rather than truthfully telling the requester that he has a poor personality; see Folkes, 1982). Children as young as 5 years of age have demonstrated an understanding of the relation between causal locus and hurt feelings, given a rejection (Weiner & Handel, 1985). A voluminous attributional literature also documents existence of a *hedonic bias,* or a tendency for individuals to ascribe success to internal factors and failure to external factors. As Harvey and Weary (1981) noted, "By taking credit for good acts and denying blame for bad outcomes, the individual presumably may be able to enhance or protect his or her self-

esteem" (p. 33). Pride and personal esteem therefore are self-reflective emotions, linked with the locus dimension of causality.

Anger. A large survey study by Averill (1982, 1983) illustrates the attributional antecedents of anger. Averill asked his respondents to describe a situation in which they were made angry, and then examined the characteristics of these situations. He concluded,

> The major issue for the person in the street is not the specific nature of the instigating event; it is the perceived *justification* for the instigator's behavior. Anger, for the person in the street, is an accusation . . . Over 85% of the episodes described by angry persons involved either an act that they considered voluntary and unjustified (59%) or else a potentially avoidable accident (e.g., due to negligence or lack of foresight, 28%) . . . More than anything else, anger is an attribution of blame. (Averill, 1983, p. 1150)

Many others have reached a similar conclusion. For example, among the very first of the pertinent investigations, Pastore (1952) demonstrated that aggression (and, by implication, anger) is not merely the result of nonattainment of a desired goal, but rather follows when a barrier imposed by others is *arbitrary* (e.g., "Your date phones at the last minute and breaks an appointment without adequate explanation") rather than *nonarbitrary* (e.g., "Your date phones . . . and breaks an appointment because he (she) suddenly became ill)." To summarize, the attributional antecedent for anger is an ascription of a negative, self-related outcome or event to factors controllable by others (see Weiner, 1980a, 1980b; Weiner, Graham, & Chandler, 1982).

Pity. In contrast to the linkage between controllability and anger, it is hypothesized that uncontrollable causes are associated with pity. It is said that when Helen Keller began her training, her teacher stated to Ms. Keller's family: "We do not want your pity," thus conveying that a target of pity is associated with an uncontrollable deficit. This analysis is similar to Hoffman's (1982) conception, for he stated, "It is only when the cues indicate that . . . the victim had no control that the . . . partial transformation of empathic into sympathic distress may apply" (p. 296).

A number of research studies support this contention. Another's loss of a loved one because of an accident, or difficulties because of a physical handicap, are prototypical situations that elicit pity (see Graham, Doubleday, & Guarino, 1984; Weiner, 1980a, 1980b; Weiner, Graham, & Chandler, 1982). Note, therefore, that the perceived controllability of a cause for a negative outcome in part determines whether anger or pity is directed toward another. We feel anger toward the lazy and therefore punish lack of effort, but we feel pity toward the unable and therefore do not punish lack of ability (Weiner & Kukla, 1970).

The relations between controllability–anger and uncontrollability–pity also are part of naive psychology and are used in everyday life to control or manipulate the emotions of others. Thus, when providing an excuse (ex = from; cuse = cause) for failing to appear at a social engagement, uncontrollable causes tend to be communicated (e.g., "My car had a flat tire") rather than controllable ones (e.g., "I decided to watch TV"; see Weiner, Amirkhan, Folkes, & Wachtel, 1985). One hopes that this communication defuses anger and perhaps even alters the reaction to pity. Similar interpersonal strategies are understood and used by children as young as 5 years of age (Weiner & Handel, 1985).

Guilt and shame. Philosophers and social scientists have devoted considerable attention to the experience of guilt, its antecedents, and its consequences. Reviewing the guilt literature, Wicker, Payne, and Morgan (1983) concluded, "In general, guilt is said to follow from acts that violate ethical norms, principles of justice . . . or moral values. Guilt is accompanied by feelings of personal responsibility" (p. 26). In a similar manner, Izard (1977) concluded that "Guilt occurs in situations in which one feels personally responsible" (p. 423), and Hoffman (1976) more precisely reasoned, "Blaming oneself becomes possible once one has acquired the cognitive capacity to recognize the consequences of his action for others and to be aware that he has choice and control over his own behavior" (p. 139). In support of these interpretations, my colleagues and I have found that the most prevalent guilt-eliciting situations among college students involve lying to parents, cheating on an exam, or being disloyal to a dating partner (Weiner, Graham, & Chandler, 1982), although it is evident that guilt may be evoked by either the commission or the omission of particular actions (see Hoffman, 1970).

Guilt and anger therefore are elicited by

controllable causes, but guilt is directed inward, whereas anger is typically (but not necessarily) directed outward. Thus, for example, we tend to feel guilty when we have lied to others, but angry when we have discovered that someone has lied to us (see Weiner, Graham, & Chandler, 1982). In a similar manner, lack of effort toward an important goal tends to elicit anger from others (such as teachers) and also generates personal guilt.

Shame frequently is contrasted with guilt, although both involve "negative self-evaluations that are painful, tense, agitating . . . depressing" (Wicker et al., 1983). Although there appear to be different kinds of shame, it is believed that one antecedent is an attribution for failure that is self-related and uncontrollable, such as lack of ability. In studies testing uncontrollability–shame and controllability–guilt associations, Brown and Weiner (1984), Covington and Omelich (1984), and Jagacinski and Nicholls (1984) have reported that shame-related affects (disgrace, embarrassment, humiliation, and/or shame) are linked with failure due to low ability, whereas guilt-related affects (guilt, regret, and/or remorse) are associated with failure due to lack of effort. It also has been documented that shame-related emotions give rise to withdrawal and motivational inhibition, whereas guilt-related emotions promote approach behavior, retribution, and motivational activation (Hoffman, 1982; Wicker et al., 1983). Hence, there are linkages between low-ability–shame-inhibition and between lack-of-effort–guilt-augmentation. It also is of interest to repeat that anger tends to motivate aggression, so that three patterns of behavior noted by Horney (going toward, going away from, going against) are related to causal controllability and the respective affects of guilt, shame, and anger.

Gratitude. There is relatively little research concerned with gratitude, but the evidence suggests that gratitude toward another is elicited if and only if the act of the benefactor was under volitional control and was intended to benefit the recipient. For example, Tesser, Gatewood, and Driver (1968) presented subjects with scenarios that involved a benefactor and asked the subjects how grateful they would feel under the various circumstances that were portrayed. They found that reported gratitude was maximized when the gift was intended to benefit only the receiver (as opposed to a situation in which the gift enhanced the reputation of the giver). In other supporting research it has been documented that reciprocity is more likely when a gift is given deliberately rather than accidentally (Greenberg & Frisch, 1972) and when help is voluntary rather than compulsory (Goranson & Berkowitz, 1966).

Hopelessness. It has been convincingly documented that causal stability in part determines expectancies regarding future success and failure. Thus, any emotion involving anticipations of goal attainment or nonattainment will likely be influenced by causal stability. One such affect has been labeled *hopelessness.* It has been found that hopelessness and resignation are elicited given an attribution for a negative outcome to stable causes (Weiner et al., 1978, 1979). That is, if the future is anticipated to remain as bad as the past, then hopelessness is experienced. In addition, affects such as pity are exacerbated when the cause of the negative state is stable rather than unstable (e.g., we tend to pity the blind more than we pity those with temporary eye problems). Similarly, we tend to be more angry at others when perceived controllable behavior, such as lack of effort, is stable (a trait) rather than an unstable state (Weiner, Graham, & Chandler, 1982).

Summary and conclusions. Attributions play a key role in affective life. Seven emotions were briefly examined that relate to causal structure: pride (self-esteem), anger, pity, guilt, shame, gratitude, and hopelessness. These are among the most frequently reported and written-about affective experiences (see Bottenberg, 1975; Davitz, 1969). Sociobiologists have specified that four of these emotions—anger, pity, guilt, and gratitude—are of special importance in promoting gene survival (see Trivers, 1971). These four emotions are related to the causal dimension of controllability, which is consistent with the sociobiological position that emotions are used to aid in maintaining the social order. Finally, although the bulk of the supporting data have been generated in achievement-related contexts, the relations specified above do not seem to be confined to a particular motivational domain. As previously suggested, aptitude as a cause of achievement success, and physical attractiveness as a cause of social success, are conceptually similar

in that both are internal, stable, and uncontrollable. Thus, success or positive outcomes due to these factors should enhance pride and positive self-esteem, just as negative outcomes because of their absence should lower esteem. But nonattainment of a goal for these reasons should provoke neither anger from others nor personal guilt. Rather, failure given both these specific ascriptions is likely to elicit pity from others and produce feelings of shame and hopelessness in the frustrated individual.

A word of caution, however, is needed about the preceding discussion. Given a causal ascription, the linked emotion does not necessarily follow. For example, one may not have put forth effort at something important, yet still be free from guilt. Or one may attribute success to help from others, yet not feel grateful. Furthermore, an emotion may be experienced in the absence of its linked antecedent. For example, one may not be responsible for an outcome, but will experience guilt (see Hoffman, 1976). Hence, the position being espoused is that the dimension-affect relations are not invariant, but are quite prevalent in our culture, and perhaps in many others as well. This position is similar to the argument that there is a linkage between frustration and aggression, although frustration elicits reactions other than aggression, and aggression has other antecedents in addition to frustration.

The Complete Theory

It is now possible to present an attributional theory of motivation and emotion based on the prior discussion of the theoretical components. The theory is presented in Figure 2. In contrast to other Expectancy × Value approaches, this conception is represented as a historical or temporal sequence; motivation is not conceived as an "ahistorical problem" (Atkinson, 1964, p. 146). In addition, the theory to be proposed departs from prior Expectancy × Value conceptions by linking value to the affect elicited following goal-directed activity. Other theories of motivation have been remiss by virtually ignoring the emotions, save for an acceptance of the general pleasure–pain principle. The sequence depicted in Figure 2 will be used to discuss the following contrived (but surely extant) scenario: "A Little League baseball player performs very poorly during a game. Instead of appearing for the next contest, the boy stays at home." Other scenarios, such as the boy taking extra batting practice following failure (rather than missing the game) or taking extra batting practice after playing well (success), could have readily been used to portray how the theory shown in Figure 2 conceptualizes an achievement-related motivational episode. This is followed by an examination of achievement change programs, for these therapeutic attempts illustrate both how the theory has been used and document its incomplete utilization. After these analyses, I consider the generality of the theory beyond the achievement domain.

Figure 2 reveals that a motivational sequence is initiated by an outcome that individuals interpret as positive (goal attainment) or negative (nonattainment of the goal). Inasmuch as affects are directly linked with outcomes (the primary appraisal), Figure 2 includes a connection between outcome and the reactions of happy (for success) and frustrated or sad (if the outcome was interpreted as a failure). These associations are designated with a *1* in the figure. In the baseball scenario, the boy performed poorly at the game and this will elicit general negative reactions.

A causal search is then undertaken to determine why the outcome occurred (Linkage 2). Some of the conditions that particularly promote this search, which were not discussed in the present article (see Weiner, 1985), are indicated in the figure. In our example, failure at a subjectively important act should result in the boy overtly or covertly wondering, "Why did I perform so poorly?" A large number of antecedents influence the causal explanation(s) reached. This popular topic also was not discussed in the present article. Some of the known attributional antecedents are included in Figure 2, such as specific information (e.g., past personal history, performance of others; see Kelley & Michela, 1980). The blanket etcetera at the bottom of the antecedents merely conveys that there are many unlisted determinants of the selected attribution.

The causal decision is biased toward a relatively small number of causes such as ability and effort in the achievement domain (see Table 1). Again Figure 2 is not complete, as denoted by the etcetera at the bottom of the causal lists. In our example, assume that the

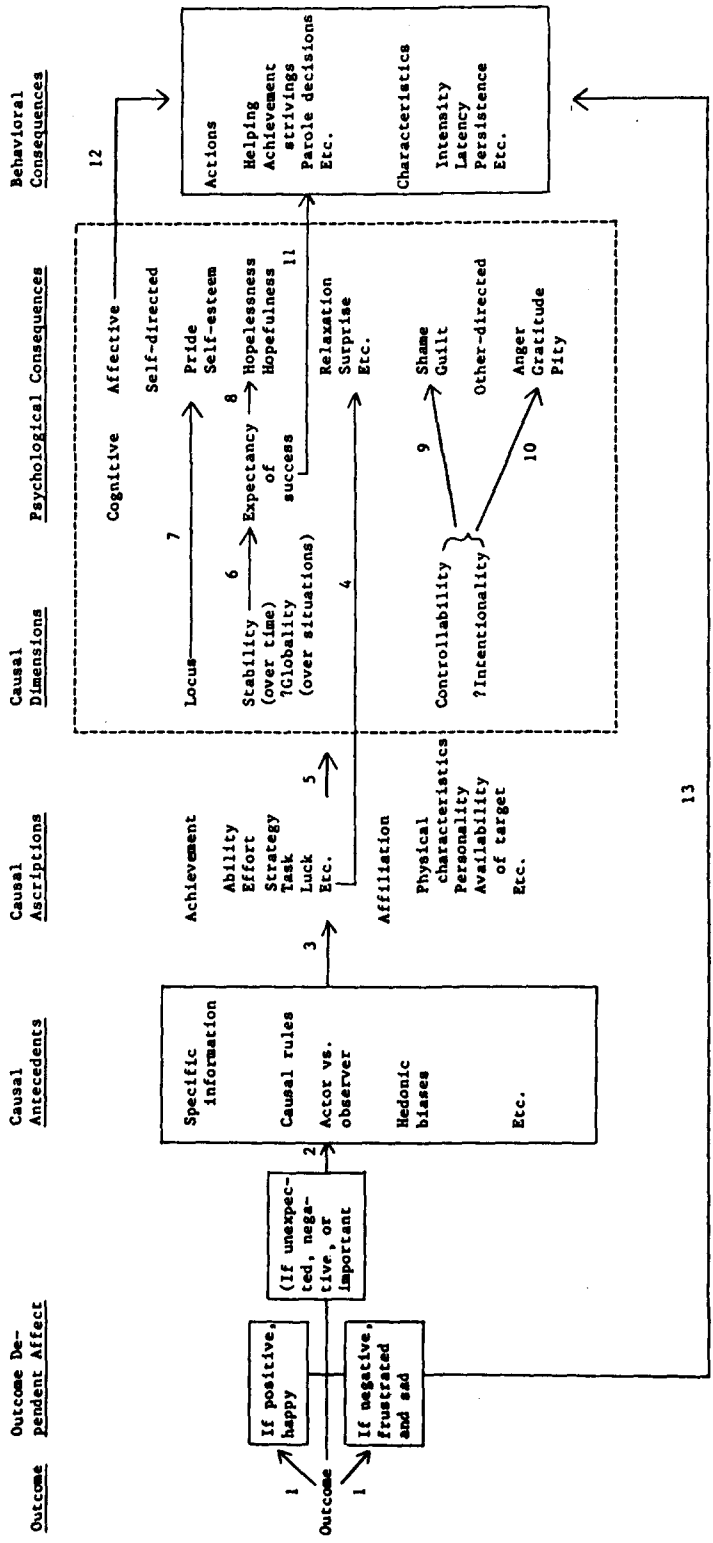

Figure 2. An attributional theory of motivation and emotion.

boy has played quite poorly in the past and that other children on the team are playing well. The boy also practiced many hours. On the basis of the past outcome history, social comparison, and effort expenditure, the boy decides that he is low in baseball-playing ability. That is, he thinks, "I failed because I am not any good at baseball" (Linkage 3). A unique affective reaction may be elicited by this causal decision (Linkage 4).

The cause is then located in dimensional space. This is depicted as Linkage 5 in the figure. As documented in Table 2, the three main properties of causes are locus, stability, and controllability, with globality and intentionality considered possible causal properties (and therefore accompanied by question marks). The Little Leaguer ascribed his performance to lack of ability, which is likely to be perceived as internal, stable, and uncontrollable (although that placement must be analyzed from the phenomenology of the perceiver). It also might be unintentional and global ("I am poor at sports").

Causal dimensions have psychological consequences, being related to both expectancy and affect (which is presumed in this conception to be the value of goal attainment). The stability of a cause influences the relative expectancy of future success (Linkage 6). This association is documented in Table 3. In our scenario, the boy anticipates repeated failure inasmuch as low ability is perceived as a stable cause. He also might have increased expectancy of failure in other sporting activities if the cause is perceived as global. That is, stability influences temporal aspects of expectancy, whereas globality influences cross-situational expectancies.

Turning to affective consequences, the locus of a cause exerts an influence on self-esteem and pride—internal ascriptions elicit greater self-esteem for success and lower self-esteem for failure than do external attributions (Linkage 7). The boy in our story failed because of a cause considered internal, and therefore he should be experiencing low self-esteem. The stability of the cause, by affecting expectancy, also fosters feelings of hopelessness (or hopefulness); this is indicated in Linkage 8. The Little Leaguer, with a history of failure and ascription of the current failure to low ability, should be feeling hopeless. Finally, controllability influences social emotions; controllable causes of personal failure promote feelings of guilt, whereas uncontrollable causes generate shame (Linkage 9). These are represented in the figure as self-directed affects, as are the specific attribution-linked emotions of relaxation and surprise. Among the affects directed toward others are anger (given a cause of failure controllable by others), pity (given an uncontrollable cause of failure), and gratitude (given a controllable cause; Linkage 10). The failing Little Leaguer is likely to be feeling ashamed of himself and humiliated (but not guilty), whereas his coach or his mother feels pity or feels sorry for him (but not angry).

Finally, expectancy and affect are presumed to determine action (Linkages 11, 12, and 13). The actions can be described according to their intensity, latency, and so on. In the baseball scenario, the boy has a low expectancy of future success and is feeling sad, low self esteem, ashamed, and hopeless. These conditions promote withdrawal and behaviors that are not instrumental to the attainment of the desired goal. He then stays home from the next game.

Although Figure 1 appears to depict an exhaustive conceptual analysis, even greater complexity has been documented. The linkages in the figure all are unidirectional, although it is known that this is not the case. For example, expectancy of success influences attributions (see Feather & Simon, 1972). Thus, if our baseball player succeeded, his low expectancy of success would foster an attribution to an unstable cause such as good luck. In addition, affects such as pity and anger are important attributional cues (Graham, 1984; Weiner, Graham, Stern, & Lawson, 1982). For example, directing pity toward the Little Leaguer will increase his belief that personal failure was due to low ability. And feelings of happiness and sadness influence outcome perceptions (see Bower, 1981). Hence, the boy in the story might perceive an ambiguous outcome during the game as a failure because of his unhappiness and other negative affective experiences initiated prior to the outcome in question. These added intricacies are neglected here, but deserve full incorporation into the theory.

Achievement Change Programs

I now turn from the devised scenario to an ongoing topic of research. There is an increas-

ingly popular therapeutic treatment that induces participants to alter their attributions for success and failure (see Foersterling, in press). Often the participants in these programs were selected because they ascribe personal failure to low ability. The main empirical finding in these studies is that persistence in the face of failure is enhanced when attributions for failure are changed from low ability to lack of effort (Andrews & Debus, 1978; Chapin & Dyck, 1976; Dweck, 1975; Zoeller, Mahoney, & Weiner, 1983), to poor strategy (Anderson, 1983b; Anderson & Jennings, 1980), or to temporary external barriers (Wilson & Linville, 1982, 1985).

To alter attributions, in the treatment techniques the experimenter often directly communicates to the participants the attribution that is desired to be induced (e.g., "You failed because you did not try hard enough" or "Success depends entirely on finding the right strategy"). Following the logic of Figure 2, the participants use this information to reach a causal conclusion. Furthermore, they apparently accept the communicated ascription, rather than attributing induced failure to low ability. Attributions thus are altered from stable to unstable, which should (and does) result in the maintenance of goal expectancy (see Anderson, 1983b; Anderson & Jennings, 1980). This sequence is depicted in Linkages 3, 5, and 6 in the figure. The investigators all reported increments in persistence of achievement strivings in the face of failure following the treatment and assumed that the behavior change was mediated, in part, by shifts in the subjective expectancy of success, as indicated in Linkage 11 (although Wilson & Linville, 1982, questioned the consciousness of this estimate, and Dweck, 1975, stressed the controllability rather than the stability of the induced causal ascription).

It is therefore evident that the researchers have focused attention on expectancy of success. Although consistent with the theory, it also is clear that the conceptualization is not fully brought to bear on the phenomena, inasmuch as emotions are entirely neglected. As previously revealed, ascriptions to ability, effort, strategy, and external barriers have disparate affective consequences. For example, a program that induces effort rather than ability ascriptions for failure theoretically is altering reactions of shame and humiliation to guilt. This new emotional reaction, rather than (in addition to) a change in expectancy, may be responsible for the increments in motivated behavior. On the other hand, a program that promotes task difficulty ascriptions (Wilson & Linville, 1982, 1985) theoretically is enhancing the self-esteem of the participants, for the attribution is being shifted from internal to external (in contrast to the controllability alteration that precedes the hypothesized affective shift from shame to guilt). Perhaps increments in self-esteem rather than (in addition to) expectancy maintenance is responsible for the augmented achievement strivings. In sum, the attributional conception in Figure 2 suggests that the change programs may be more complex, and less similar to one another, than has been recognized.

Theoretical Generality

It has been intimated throughout this article that the theory shown in Figure 2 is conceived as a general conceptual framework, although it has been acknowledged that the vast amount of supporting data has been generated in achievement-related contexts. Thus, although the focus of the theory concerns achievement strivings, it is tentatively believed that the conception has a wide range of applicability. This is similar to the position espoused by Atkinson (1964), who also assumed that he was developing a general theory of motivation, although achievement settings provided the site of the experimental research.

The foundation for generality in the present approach is provided by two conceptual mechanisms. First, it is proposed that a motivational episode is initiated following any outcome that can be construed as attainment or nonattainment of a goal. Achievement success and failure clearly capture this requirement, but acceptance and rejection in the affiliative domain provide a ready parallel (see Anderson, 1983a; Sobol & Earn, in press). In addition, the conception has been used to examine a number of social and personal "failures," including, for example, alcoholism (McHugh, Beckman, & Frieze, 1979); crime, and parole decisions (Carroll, 1978); depression (Abramson et al., 1978); deprivation (Mark, 1985); loneliness (Peplau, Russell, &

Heim, 1979); need for help (Betancourt, 1983; Reisenzein, in press; Weiner, 1980a, 1980b); maladaptive reactions to rape (Janoff-Bulman, 1979); smoking (Eiser, Van der Pligt, Raw, & Sutton, in press); and wife battering (Freize, 1979). It is especially worth noting that the popular attributional analysis of depression advanced by Abramson et al. (1978) and the oft-cited distinction between characterological versus behavioral self-blame (Janoff-Bulman, 1979) both have the present attributional approach as their source.

In these analyses, the authors first determine the perceived cause of the outcome, such as the cause of a crime or the cause of depression. Although these causes vary widely, both within and between the domains under consideration, they can be described according to their structural properties of locus, stability, and controllability. The dimensional analysis furnishes the second key mechanism for theoretical generality, for once the structure of the cause is ascertained, then its impact on expectancy, affect, and action can be tested. Consider, for illustrative purposes, the application of the theory to the disparate areas of criminal behavior (parole decisions), smoking cessation, and help giving. The latter two research topics have been subject to examination by means of path-analytic techniques, thus providing a full or partial test of the proposed temporal sequence outlined in Figure 2.

Parole decisions. According to Carroll (1978) and Carroll & Payne (1976, 1977), parole decision makers search for a cause of a crime when reaching their decision, utilizing and integrating a variety of available information such as the past criminal record, circumstances at the time of the crime, and so on. According to Figure 2, the perceived stability of the cause determines the risk of the criminal to society, that is, the expectancy that another crime might be committed. The controllability and/or intentionality of the crime influence(s) the anger at the criminal. Risk and anger (expectancy and affect), in turn, are hypothesized to affect the parole judgment.

Carroll (1978) and Carroll and Payne (1976, 1977) furnished evidence that this analysis does capture the parole decision process. It was found, for example, that an individual with a record of conviction who committed a long-planned crime is less likely to be paroled than is one without a previous history who impulsively committed the same crime. This is in part because criminal history is a cue used to determine the stability of the cause of the crime; an extensive history results in the perception of the cause of the current crime as stable and recidivism is therefore anticipated. Parole board members do consider nonattributional factors in their decisions and, as opposed to college students simulating parole officials, base their decisions entirely on risk factors. However, the decisions made by judges and by college students also take into account beliefs regarding "deserved" punishment. Crimes committed because of intentional and/or controllable factors are believed to be more deserving of punishment than are crimes due to unintentional and/or noncontrollable causes.

In this research, as in the work on achievement change programs, the full theory has not been applied because of the neglect of emotions. This is not the fault of the researchers, for the introduction of emotion into this theory came well after their studies. Hence, a reasonable direction for these investigations is to incorporate feelings, particularly anger and pity, into the determinants of sentence and parole decisions.

Cessation of smoking. A great deal of attention has been devoted by psychologists to an examination of why people do not give up smoking, given the known negative consequences of this behavior. Eiser and Sutton (1977) argued that the decision facing a would-be quitter is not whether to smoke or to quit, but whether to smoke or to try to quit. This shifts the theoretical focus from the determinants of quitting to the subjective expectancy that an attempt at quitting will be successful.

In a large survey study, Eiser et al. (in press) examined the attributions that smokers give for the failure of others to give up smoking, as well as the reasons for their own personal failure at cessation attempts. Path analyses revealed that the perceived stability of the cause of prior failure attempts of both others and oneself was related to personal confidence about giving up smoking in the future. Confidence, in turn, was related to the behavioral intention to try and quit, and intention was associated with actual abstinence attempts. Hence, the temporal sequence of cause, causal

stability, expectancy of success, and behavior was confirmed in this health-related context. Again, the role of emotions was neglected, and the possibility arises that affects such as shame or guilt might also be predictive of attempts at quitting (also see Goldstein, Gordon, & Marlatt, 1984).

Helping behavior. According to the present attributional analysis, when a person is in need of aid, the potential helper attempts to determine why help is needed. If the cause is uncontrollable, then pity is experienced and help should be offered. On the other hand, if the cause is perceived as controllable, then the person is held responsible, anger is experienced, and help should be withheld. Extensive research has revealed positive associations between perceived controllability–anger-neglect and between perceived uncontrollability–pity-help (see J. Meyer & Mulherin, 1980). For example, it has been documented that individuals on a subway are more likely to help a falling person who is ill (uncontrollable) rather than drunk (controllable; Piliavin, Rodin, & Piliavin, 1969; Reisenzein, in press; Weiner, 1980a); that students are more likely to lend another student their class notes if the other student has an eye problem (uncontrollable) rather than if the student needs notes because he or she went to the beach (controllable; Betancourt, 1983; Reisenzein, in press; Weiner, 1980b); and that teachers are more likely to help a shy (uncontrollable) rather than a hyperactive (controllable) student (Brophy & Rohrkemper, 1981). Note that the attributional approach points out the similarity, and like consequences, between drunkenness and going to the beach, or between illness and shyness, by indicating their comparable subjective placements on the causal dimension of controllability.

This research, in direct opposition to the study of achievement change programs, parole decisions, and attempts to quit smoking, has typically ignored the role of causal stability and expectancy in the motivational sequence and has focused on affect. Thus, the entire theory depicted in Figure 2 again has not been engaged. Aid may be more likely to be extended if the cause of the need is perceived as stable as well as uncontrollable, so that there is relative certainty that the needy person will be unable to help him- or herself in the future. Thus, students may be more likely to lend their notes to a blind person rather than to a person with a temporary eye problem. In addition, stable uncontrollable causes of need elicit greater pity than do unstable uncontrollable causes.

Concluding Comments

During the decades between 1930–1950 the field of motivation was central in psychology. At present, this field is not particularly active. I suggest that one reason for the relative demise in the perceived importance of motivational thinking has been the unreliability of the "reference experiments," that is, the basic investigations that provide the empirical foundations for the theories. For example, regarding the unequal recall of incompleted versus completed tasks, or what is known as the *Zeigarnik effect,* Lewin (1935) stated, "All later experimental investigations were built upon this" (p. 240). But the differential task recall observed by Lewin and Zeigarnik is not a reliable finding. In a similar manner, Atkinson (1964) contended that individuals classified as high versus low in achievement needs exhibit opposing risk preferences, given tasks differing in perceived difficulty. This central prediction from Atkinson's conception is not reliably found (see W. Meyer, Folkes, & Weiner, 1976); one suspects this is partially responsible for the lessening influence of this conception. And differences in expectancy shifts between people labeled as *internal* and *external* in perceptions of control has not been reliably demonstrated, although this is a fundamental prediction of Rotter's (1966) conception.

The empirical foundation for the theory presented here—the existence of causal search, the dominant causal perceptions, the structure of perceived causality, the relation between causal stability and expectancy change, and the associations between causal structure and the emotions of pride, anger, pity, guilt, gratitude, shame, and hopelessness, is robust. I believe that these facts and relations will survive, independent of the fate of the entire theory. In addition, the present conception has other virtues perhaps less evident in prior motivational conceptions: A full range of cognitions and emotions are incorporated and there is an explicit concern with the self. Furthermore, an attempt has been made to relate the structure

of thought (in this case, causal thinking) to the dynamics of feeling and action. This is one of the basic tasks that motivational theorists must solve.

In conclusion, I believe that some attention also must be paid to the "nothing but common sense" criticism leveled at times against attributional approaches. When critics charge that an attributional approach is "mere" common sense, they are exclaiming that the relations pointed out or predicted by the theory represent shared knowledge (see Fletcher, 1984). I agree that the linkages in Figure 2 between, for example, stable causes and repeated effects, internal locus and self-esteem, and causal controllability and anger, gratitute, and guilt, generally are known or at least will be positively acknowledged when presented to the lay public. What is not shared knowledge, however, is the conceptual analysis—the linking of various "understood" empirical relations and the use of similar principles to explain a vast array of phenotypic observations. The layperson does not appreciate that expecting to be rejected for a social engagement because of prior attribution to lack of attractiveness and feeling grateful and returning a favor because of a volitionally given gift are part of the same conceptual network. It is this systemization, that is, the higher order relations between associations realized in everyday life, that represents much of this attributional contribution. That the individual parts or components are naively shared underscores their veridicality, thus further supporting the certainty of the empirical relations and thereby providing a strong foundation for theory building.

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