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Gunilla found the beautiful formal she wanted for the prom, but she needed to lose some weight. Her friend, fresh from a social psychology course, recommended that she set a specific, daily caloric goal. On the third day, after eating a serving of "lite" spaghetti, Gunilla read the package and realized that she was slightly over her daily goal. Her response was interesting: She said to herself, "What-the-hell. Since I'm already over my goal it doesn't matter what I eat." And she proceeded to consume half of her mom's apple pie.

There is a lot of research and even more in the way of common wisdom pointing to the effectiveness of goals in human accomplishment. The more concrete the goal and the more proximal the subgoals the better the performance. In spite of having a proximal, concrete goal, Gunilla's very small failure led to a highly dysfunctional abandonment of the goal system. Her "what-the-hell" response is not unusual.

This chapter is an attempt to understand the what-the-hell response. To do that, we review some of the evidence for the effectiveness of goal setting and then introduce research documenting the existence of the what-the-hell effect. Following that, we explore a variety of parameters that, while important to goal functioning, appear unable to account for the what-the-hell effect. Our own model of the effect implicates the interaction of goal proximity and goal framing. The model suggests that when the goal is framed in terms of gains, the relationship between subgoal proximity and task performance will be more positive than when the goal is framed in
terms of prevention of loss/inhibition. After presenting some evidence for this model, we discuss some practical and research implications.

GOALS FACILITATE PERFORMANCE

The effectiveness of goal setting on human performance has been firmly established in numerous studies (Locke & Latham, 1984). A goal has been defined as an image of a future level of performance (Garland, 1985); what an individual is trying to accomplish; the object or aim of an action (Locke, Shaw, Saari, & Latham, 1981); and as the determination to perform certain activities or to attain certain future conditions (Bandura & Simon, 1977). These definitions have several factors in common:

1. A goal is cognitive; a goal is an image of some ideal occurrence stored in memory for comparison with the actual occurrence.
2. A goal represents a future consequence or outcome that influences present behavior.
3. A goal is desirable to the individual who seeks to obtain it; some degree of expected satisfaction or pleasure is associated with reaching the goal.
4. A goal is a source of motivation; it is an incentive to action.

Data show that having goals, relative to not having goals, increased performance in every area of human behavior studied (Latham & Yukl, 1975; Locke et al., 1981). Goal setting affects the amount, the perseverance, the direction, and the strategy of behavior. In a study by Locke and Bryan (1969), subjects given feedback on five different dimensions of driving performance improved only on the one dimension on which they were given a goal. Terborg (1976) found that subjects with goals spent more time looking at text material to be learned and more often used learning strategies than those with no goals. Subjects increased reaction speed (Locke, Cartledge, & Knerr, 1970); wrote shorter sentences (Rosswork, 1977); and changed standards (Sales, 1970) in response to simply being given a goal. Goals increase the amount and the duration of effort expended. Subjects work faster (Bassett, 1979; Latham & Locke, 1975); harder, as evidenced by heart rate increase and greater output (Sales, 1970); and spend more time at the task (LaPorte & Nath, 1976; Rothkopf & Billington, 1979) when provided with goals, compared to subjects without goals. Additionally, goals may serve to enhance cognitive processing of performance related information (Bandura, 1986). So, goals have been shown to be helpful. However, there is also some evidence that goal setting can have negative effects. This has been demonstrated most clearly in research on dieting.
DIETING AND THE "WHAT THE HELL" EFFECT

Goal setting is apparent in many aspects of human behavior. For example, we set career goals, budget goals, fitness goals, relationship goals, even spiritual goals. One common area in which goals are utilized is that of dieting. With at least one third of all adults in the United States 10% or more above normal weight (Taylor, 1986), the desire to be healthy and physically attractive motivates a large proportion of the population to diet. Surveys of the U.S. population indicate that at any given time, approximately two thirds of the public can be said to be dieting. In accordance with traditional goal-setting/weight-loss approaches, a diet generally means setting an endgoal of a specified amount of weight to be lost, as well as a daily subgoal of caloric intake. Although dieting is considered to be at least part of the proper approach to weight loss by lay people as well as the medical profession, results are notoriously bad (Polivy & Herman, 1985). Even among those who do have some success (i.e., weight loss), the pounds are usually regained rapidly (Taylor, 1986).

Restrained eaters, defined by Herman and Mack (1975) as any person who is consciously and continuously aware of their eating behavior even if normal weight, have shifted the control of eating behavior from physiological control to cognitive control. The dieter must learn to suppress normal physiological cues to eat in favor of cognitive controls that permit him or her to eat only what has been predetermined to be proper for the day. According to Polivy and Herman (1985), this shift in control of food intake from physiological to cognitive may result in a reaction that they termed the what-the-hell effect. This effect is seen in restrained eaters who are induced to eat more calories than is allowed for any one day. Because they perceive that the day is lost, so to speak, there is no longer any incentive for continued restraint, so they overindulge. This effect was seen in restrained eaters who were given milkshakes in a taste perception experiment (Herman & Mack, 1975); those who were led to expect a period without food (Lowe, 1982); those who observed a model overeating (Polivy, Herman, Younger, & Erskine, 1979); those who perceived alcohol intoxication (Polivy & Herman, 1976); and even in those who only thought they were taking in extra calories (Polivy, 1976; Spencer & Fremouw, 1979).

Polivy and Herman (1985) presented three aspects of this phenomenon. First, while cognitive controls allow one to eat in accordance with a caloric goal, they are also very susceptible to disruption so that when one starts to deviate from that goal, cognitive controls are usually incapable of stopping the slide. Second, when the cognitive controls are intact, the dieter tends to eat very little, essentially creating an eat/don't eat, good/bad dichotomy. Third, the dieter tends to think irrationally about his or her diet, perceiving caloric limit in diurnal units, so that if the limit is exceeded, there is no need
to attempt further restraint for that subgoal (i.e., the day). Goals and related cognitive processes are usually effective in aiding performance behavior. Why do they appear to cause irrationality and the what-the-hell effect? Perhaps a closer look at what makes goals effective will aid in understanding this puzzle.

SOME CONSEQUENTIAL ASPECTS OF GOALS

Probably the most consistent and powerful attribute in goal setting is the difficulty of the goal. Goal-striving behavior occurs within a range of difficulty; this difficulty level has been termed level of aspiration (Lewin, Dembo, Festinger, & Sears, 1944). Harder or more difficult goals are goals that require expenditure of greater effort and attention or that require more knowledge or skill than easier goals (Locke et al., 1981). Locke (1966) found that the more difficult the goal, the higher the resulting performance level. This linear relationship held even when the goal was set so high as to be obtainable only 10% of the time. More recent studies have overwhelmingly supported these findings (Garland, 1982, 1983; Latham, Mitchell, & Dossett, 1978; Latham & Yukl, 1975; Locke, 1968). Losing weight has the reputation of being difficult, but doable. Thus, the what-the-hell effect is not likely to be due to goal difficulty.

Another goal dimension is specificity. Specific, clearly stated goals lead to higher performance than general or do-your-best goals. The superiority of specific goals in generating output has been shown in numerous experiments (Locke et al., 1981). A goal that is both challenging (i.e., difficult) and specific leads to higher performance levels than either type of goal alone (Locke, 1968; Latham et al., 1978). Specific and challenging goals produced better performance in dieting (Bandura & Simon, 1977), sentence construction (Rothkopf & Billington, 1979), driving (Locke & Bryan, 1969), and in many other laboratory and field studies. Locke and his colleagues (1981) reported that of 110 studies reviewed, 99 reported that specific, hard goals yielded better performance than easier goals, no goals, or vague, do-your-best goals. It is difficult to imagine a more specific goal than caloric intake. Thus, lack of goal specificity cannot account for the what-the-hell effect.

Acceptance of or commitment to a goal is expected to lead to better performance than failure to accept the goal. (Locke, 1968). Although few studies have directly addressed this issue, those that have generally fail to find significant results (Hom & Murphy, 1985; Yukl & Latham, 1978), but these negative results may be in part because of the measures of acceptance utilized (Locke et al., 1981). Closely related to the issue of goal acceptance/
commitment is the idea that goals that are set by the participant (i.e., self-determined) are more likely to be better accepted by the person than goals that are assigned by an experimenter or supervisor (see Sansone & Harackiewicz, chap. 12, this volume). However, studies show no consistent results for participative-set goals being superior to assigned goals when goal difficulty is held constant (Dossett, Latham, & Mitchell, 1979; Latham & Saari, 1979; Locke & Schweiger, 1979). However, it has been shown that participatively set goals may lead to higher performance because participation generally produces higher goals than would be assigned, and higher goals result in better performance (Latham & Saari, 1979; Latham & Yukl, 1975). Because dieting goals are generally self-imposed, acceptance does not appear to be a good candidate to explain the what-the-hell effect.

The role of incentives (i.e., money or other reinforcer) in influencing the effectiveness of goal setting is unclear. While it has been shown that monetary offers can dramatically increase worker output (Locke, Feren, McCaleb, Shaw, & Denny, 1980), these offers must be fairly substantial (Pritchard & Curtis, 1973), and the effects diminish or disappear when goal level is controlled (Latham et al., 1978; Pritchard & Curtis, 1973; Terborg & Miller, 1978). Locke et al. (1980) interpreted these data to indicate that reinforcement affects performance by increasing the likelihood of setting goals, increasing goal level, and/or increasing the value or desirability of goal attainment. (See Sansone & Harackiewicz, chap. 12, this volume, for a discussion internal vs. external goal issues.) It is possible to conceive of dieting goals as under the influence of external reinforcement, (i.e., looking good). However, the literature seems unclear that such reinforcement leads to goal success.

Self-efficacy, or what Garland (1985) referred to as performance expectancy, plays a key cognitive role in goal-setting behavior. Perceived self-efficacy strongly influences the level of future performance and, in turn, is very dependent on past performance (Bandura, 1982; Garland, 1985; Locke et al., 1984). The stronger a person's perceived self-efficacy, the more effort they will expend, and the longer they will persist at a task, resulting in better performance (Bandura & Cervone, 1986). Self-efficacy judgments also influence decisions involving choice of activities and goal level. People tend to choose situations and activities they perceive themselves capable of handling and to avoid those in which they feel incapable (Bandura, 1977).

Because self-efficacy depends heavily on the evaluative comparison process between goals and performance, Bandura (1986) proposed that frequent feedback as to goal progress is needed. Distal or long-term goals are too far off to provide accurate information about current behavior. By dividing a distant end-goal into proximal subgoals, one is able to obtain ongoing information as to accomplishments. Frequent feedback regarding
subgoal successes serves to strengthen self-efficacy, thereby sustaining end-goal motivation. In short, the theory predicts that proximal goals will generally be more effective than distal goals.

Again, this does not appear to explain the effect. Indeed, the prediction from self-efficacy theory appears to be nontrivially inconsistent with the what-the-hell effect. Self-efficacy theory predicts that proximal goals will be more effective than distal goals. Yet, the what-the-hell effect appears to be a result of adopting a more proximal goal over a more distal one. For example, if an individual maintains a weekly caloric goal then exceeding one seventh of it (the daily equivalent) in a single day would not lead to overeating. It is precisely because the goal is diurnal (rather than weekly) that the effect emerges. Because the what-the-hell effect clashes so strongly with theory on this dimension, we believe that the dimension of goal proximity may be crucial to understanding the effect. But still another piece of the puzzle is missing.

In sum, we have examined a number of aspects of goals in order to better understand the what-the-hell effect. None of these dimensions seems to provide a reasonable explanation. Losing weight is admittedly difficult to do. However, difficult goals are generally more efficacious than less difficult goals. So, difficulty does not appear to be responsible. We learned that specific goals are better than general goals in promoting effective behavior. But, what can be more specific than a caloric goal? The specificity dimension is ruled out. Commitment appears to be important in maintaining goal behavior. However, most dieters are highly committed to their goals. They often spend substantial sums of money and are quite public about their intentions to lose weight. Thus, the what-the-hell effect does not seem to be based on a lack of commitment. The literature on the role of incentives is mixed so what to conclude on that dimension is unclear. We turn now to what we think are important aspects of the what-the-hell effect.

**TWO CRUCIAL PARAMETERS: GOAL PROXIMITY AND GOAL DIRECTION (FRAMING)**

The failure of cognitive goals as controls in dieting behavior (i.e., the what-the-hell effect) may be related to the way in which the behavior is framed. Review of the goal-setting literature reveals that goal-setting studies focus on behavior that one would like to enhance or increase (Garland, 1985; Locke et al., 1981), whereas dieting involves inhibiting or decreasing a behavior (i.e., eating). Any behavior that a person is trying to decrease or eliminate entirely can be viewed as an inhibitional behavior. Such behavior would include drinking, smoking, and inappropriate social behavior, as well as overeating, all refractory behavior (Bandura & Simon, 1977; Taylor,
Behavior that one is attempting to increase or gain, such as skill or competency, can be conceived as *acquisitional behavior*.

A similar distinction has been drawn in a variety of other contexts. Gray (1982) for example, distinguished between appetitive behaviors (and the activation system) and avoidance behaviors (and the inhibition system). Several of the authors in this volume find the distinction useful as well. Carver, Lawrence, and Scheier (chap. 2, this volume) distinguish between approach and avoid goals. From the perspective of control systems theory approach goals are associated with a negative feedback loop (i.e., behavior is consistently moved toward a reference value). When it comes close enough to that value the system is turned off. Avoidance goals, on the other hand, are associated with positive feedback. Because the goal is to move away from the reference value, the system can never be satisfied and turned off. In assessing personal strivings, Emmons and Kaiser (chap. 4, this volume) find that most goals that persons strive for are positive (acquisitional) but that persons generally have a few avoidance (inhibitional) goals as well. Interestingly, the greater the percent of these avoidance goals the lower his subjects' general well-being (i.e., less positive affect, more anxiety, and more physical symptoms). Singer and Salovey (chap. 10, this volume) find it useful to distinguish between memories associated with approach goals and those associated with avoidance goals. The former memories tend to be associated with success and the latter with failure. And, while Strauman (chap. 8, this volume) does not stress this aspect of self-discrepancy theory in his chapter, Higgins and colleagues (e.g., Higgins, 1987) showed the generality of differences in approach-type psychological situations (associated with ideal discrepancies) and avoid situations (associated with ought discrepancies, see also Carver et al., chap. 2, this volume, for further discussion of this issue.) Even mood seems to have different effects on attitude change, depending on whether the attitude change message is framed as approach or avoid (Wegener & Petty, chap. 14, this volume.)

Because current theories of goal-setting behavior conceptualize cognitive processes as key influences in the effectiveness of goals in enhancing human performance, any perceptual differences between inhibitional and acquisitional behaviors could have considerable impact. Evidence that the perception of inhibitional and acquisitional behaviors may differ can be found in Kahneman and Tversky's (1979) presentation of prospect theory. They showed that people tend to perceive a loss as a greater negative than lack of an equivalent gain. Failure to reach an inhibitory goal (i.e., a goal that requires abstaining from a behavior) can be viewed as a loss, because by performing said behavior the person is losing what he or she did have when not performing the behavior. For example, if the goal is not drinking alcohol, then prior to taking that drink, the person has the desired goal of not drinking. Once a drink is taken, however, then the goal is lost. On the
other hand, not reaching an acquisitional goal (i.e., one that requires emitting a behavior) can be seen as simply a lack of gain, because the goal was not in the possession of the individual and so cannot be lost. Although the results are equal in distance from the goal, the perception is that the failure to inhibit a behavior is greater than the failure to acquire a behavior.

Inhibitional failure may be seen as an all-or-none phenomenon insofar as any emission (or overemission) of the behavior in question results in loss of the immediate subgoal, regardless of behavior before or after. That is, successfully inhibiting a behavior for a portion of time followed by emitting the behavior is viewed as failure. For example, because dieting usually involves calorie counting on a daily basis such that a set limit of calories may be consumed in one day, each day of a diet becomes a goal in and of itself. The overall goal of losing weight has not changed, but the dieter's perception of the goal may have shifted so that the dieter focuses on the subgoal. Overindulgence on one day will obviously not aid weight loss, but neither does it eliminate the possibility of ever losing weight. Yet when the dieter begins to perceive a set number of calories per day as the goal, and that number is exceeded, then the goal may be perceived as lost and a failure is recorded.

Acquisitional failure may be a more graded occurrence because any period of time in which the desired behavior is emitted is seen as some progress even when followed by lack of the behavior, eventually resulting in not reaching the goal. Although failure is the result in both cases, some progress is perceived with acquisitional effort perhaps because any attempt to do something is more tangible and can more easily be cognitively represented for use as feedback information. Likewise, only failure may be perceived with imperfect inhibitional effort, inasmuch as one cannot as easily conceptualize noneffort in the cognitive comparison process. In a study on dieting behavior, restraint monitoring, noting the desire to eat without carrying out the action, did not provide enough information to be utilized as behavioral feedback (Baron & Watters, 1982).

When the focus is on decreasing or inhibiting a behavior, anything short of that may be seen as a failure. If a dieter exceeds a daily caloric quota, she may see herself as failing; it is an all-or-none perception. When persons are attempting to increase a behavior, even if they do not acquire the desired level they can still perceive some progress. It is not an all-or-none situation. If one perceives failure as anything in excess of the goal (e.g., a set number of calories per day), then frequent failures may result. Frequent failure could lead to lower perceived self-efficacy (Bandura & Simon, 1977), which, in turn, leads to lower goal commitment, lower goal level, lower performance, and in the case of the dieter, overeating (Polivy, 1976). Additionally, the closer to the goal one perceives their progress, the more personal

Goal-setting effectiveness depends on the availability and use of feedback information regarding actual performance for comparison with a cognitive representation of ideal performance (Bandura, 1986; Garland, 1985; Locke et al., 1981). Such feedback information about ongoing performance is most often obtained through self-monitoring procedures in which one observes and evaluates their own behavior (Bandura, 1986; Kazdin, 1974). Inhibitional goal setting and acquisitional goal setting result in differential self-monitoring. Acquisitional goals direct attention toward recognizing and recording valued or desired behaviors that one is trying to increase, an orientation that is termed positive self-monitoring. Negative self-monitoring, the tracking of negative behaviors that one desires to decrease, results from inhibitional goal setting. Acquisitional goals lead one to focus on the positive and remember correct actions; inhibitional goals cause one to focus on the negative and to note one's errors.

Relative to positive self-monitoring, negative self-monitoring is detrimental to performance (Kirschenbaum & Karoly, 1977). Focusing on the negative aspects of one's behavior decreases reward, increases anxiety (Bandura, 1986; Kirschenbaum & Karoly, 1977), and reduces the frequency of self-observations (Gottman & McFall, 1972). Ultimately, these decrease overall performance level (Kirschenbaum & Karoly, 1977; Kirschenbaum, Ordman, Tomarken, & Holtzbauer, 1982). Sieck and McFall (1976) found that negative self-monitoring actually increased the incidence of smoking in those attempting to decrease. Negative feedback seems to have a more adverse effect in persons who already have low self-perceptions (Schrauger & Rosenberg, 1970), as may be the case for those individuals who are unsatisfied with their present behavior enough to attempt to decrease it. Low self-esteem plus negative focusing may result in even lower self-esteem, lower self-efficacy, and lower performance.

Moreover, recent research has shown that inhibition has an additional undesirable consequence. Wegner and his colleagues (e.g., Wegner, Schneider, Carter, & White, 1987) showed, for example, that after attempting to suppress or inhibit a thought there is a rebound effect. That is, following an attempt to suppress a thought, the suppressed thought enters consciousness more frequently than if there was no attempt to suppress the thought. This rebound may be due to associative processes. During suppression, when the unwanted thought appears people may use a variety of distractors to get rid of it. These multiple distractors may later serve to trigger the thought (Wegner, et al., 1987). Another explanation suggests that the appearance of unwanted thoughts during suppression is experienced as a failure to suppress the thought. The failure to meet the goal sets up a
tension toward completion sometimes known as the Zeigarnik effect. The rebound may be due to reducing this motivational tension (Martin & Tesser described in Martin, Tesser, & McIntosh, 1993). Whatever the precise mediating processes, failure at inhibition has enduring consequences.

Positive self-monitoring has been shown to create more positive affect, raise self-evaluation (Kirschenbaum & Karoly, 1977), and enhance performance on mathematical problems (Kirschenbaum et al., 1982), general school performance (Gottman & McFall, 1972), and motor responses (Sieck & McFall, 1976). Kirschenbaum and Karoly (1977) suggest that positive self-monitoring may be especially beneficial at the beginning of a self-regulation attempt to provide incentive through the recognition of progress.

Inhibitional behavior and goal setting are triggered by past or present personal dissatisfaction or failure, are viewed as all-or-none with regard to success or failure, are perceived as easy, activate negative self-monitoring, and have lasting effects. These factors combined with possibility of frequent failure and little, if any, positive feedback create a negative, failure-oriented perception. Goal-setting behavior with an acquisitional direction is not as likely to begin with a negative self-perception, focuses attention on positive actions, allows for detection of some progress (i.e., positive feedback) even if failure is the final outcome, and is perceived as more difficult. Acquisitional behavior and goal setting is more likely to encourage a positive, successful orientation.

Although the perceptual differences between inhibitional and acquisitional behavior have strong impact on the cognitive mediators of goal-setting behavior, it does not mean that goal setting is detrimental in inhibitional efforts. Even in refractory behavior such as the inhibition of eating or alcohol consumption, goal setting still leads to better performance than no goal setting (Bandura & Simon, 1977; Dubbert & Wilson, 1984).

In summary, acquisitional and inhibitional goals are qualitatively different. Although goal setting is a useful strategy for both, acquisitional goals fair better than inhibitional goals. Because dieting is an inhibitional goal, this analysis provides a partial, but only a partial, explanation of the what-the-hell effect. A fuller understanding follows from integrating our observations about the proximity of goals and the direction of goals.

TOWARD SOLVING THE WHAT-THE-HELL EFFECT PUZZLE: GOAL PROXIMITY AND GOAL DIRECTION INTERACT

When one is attempting to increase the probability of a behavior occurring, frequent feedback provides a yardstick by which to evaluate progress.
When people see that they have increased the behavior, they feel self-satisfied and rewarded; when they see that they have not increased the behavior, they feel self-dissatisfied and renew their efforts (Bandura & Cervone, 1986). In both instances, however, the emphasis is on increasing or acquiring desirable actions, and the focus of the frequent feedback is generally positive. When one is attempting to eliminate or decrease a behavior, the focus is failure-oriented and frequent feedback may serve to multiply negative aspects. By adjusting the proximity of goals through utilization of subgoals and endgoals, it may be possible to manipulate the cognitive processing of goal-related information and increase the effectiveness of inhibitory and acquisitional self-regulation.

It is proposed that an acquisitional goal is enhanced through the use of proximal subgoals that provide feedback concerning progress by encouraging positive self-monitoring. This positive feedback, cognitively multiplied by the use of frequent subgoals and positive self-monitoring, serves to increase self-efficacy and self-evaluation. Additional personal satisfaction may be gained from evidence of progress even if failure also occurs. Higher self-reactions lead to increased effort, increased goal level, and better performance.

It is proposed that task performance under an inhibitional goal is enhanced by the use of more distal subgoals or endgoals only. Because the dominant focus of inhibitional behavior is negative, the use of fewer subgoals will reduce the frequency of negative feedback concerning one's mistakes. With less negative self-knowledge, self-efficacy and self-evaluation will remain stronger and more positive. By reducing the amount of negativity contained in the information while still providing the necessary knowledge of results, it is believed that distal goals will allow for the maximum enhancement of inhibitional performance.

A fuller understanding of the what-the-hell effect begins to emerge. Rather than being an acquisitional goal, dieting is an inhibitional goal. Whereas proximal goals appear optimal for acquisitional behaviors, distal goals are more efficacious for inhibitional behaviors. It is the combination of adopting a proximal goal (diurnal) for an inhibitional behavior (dieting) that results in the what-the-hell effect. Daily caloric limits are only subgoals, the actual goal is a distal one—that of weight loss. It is not necessary to calculate caloric intake in daily units. If one were to adopt a longer unit, say weekly, then one slip may be much less likely to cause unrestrained eating, because the extra calories could be compensated for later in the same subgoal unit (Polivy & Herman, 1985). By calculating desired inhibitional goals in distal terms, even weekly or monthly units, one would not only be less likely to be thrown off by a minor transgression but, even if those transgressions occur, failures would be much less numerous.
THE STUDY

The present study was designed to examine the relationship between proximity of goal setting and type of goal setting—inhibitional or acquisitional. That is, it was designed to investigate the hypothesized interaction between goal proximity and goal direction on performance. We hypothesize that on a task in which the direction was inhibitional (not losing points), more distal subgoals should result in better performance (i.e., fewer errors) than more proximal smaller subgoals. When the direction is acquisitional (gaining points), more proximal subgoals should result in better performance (i.e., more points earned) than more distal subgoals.

Note that the use of points as a dependent variable is only an indirect reflection of the what-the-hell effect. The what-the-hell effect refers to a motivational shift where, as a result of failure on a subgoal, the individual abandons the discipline associated with attempting to meet the long-term goal. Achieving points in the experimental task is a nice behavioral measure of achievement. However, it is influenced by a variety of things, including skill and chance effects, as well as motivation. Since there is no apparent reason to expect that skill or chance factors differ across cells, we take systematic differences in points to reflect motivation.

When subjects arrived at the laboratory they were seated at a microcomputer. Software was written specifically for this experiment. The program presents a task in which a small black square (1 mm.) appears on the screen for $1\frac{1}{2}$ seconds. The subject's task is to move the mouse pointer onto the square and click the mouse before the square disappears. Ten squares appear on the screen per trial with two seconds between presentation of squares. The squares are randomly located on the screen using a $319 \times 319$ matrix with a total of 101,761 possible appearance locations.

Subjects were told they had an opportunity to earn points that could be traded in for extra-credit points toward their final course grade. The total number of extra-credit points earned depended on performance. The subject was then allowed one practice trial of the program. After the practice trial, the subject was asked to set a goal for the actual computer task consistent with the conditions described.

Each trial of 10 squares was presented automatically by the computer. Subjects initiated the next trial by hitting the return key. The computer recorded the number of points earned or lost on each trial for each participant. Pilot work showed that the task is difficult enough that it is virtually impossible not to make occasional misses with the mouse. However, it is not so difficult that the average person cannot perform it successfully on many attempts.

Subjects were randomly assigned to one of four behavior-goal conditions. In the two acquisitional conditions they were told that they would
earn one point for each square they clicked on with the mouse before it disappeared from the screen and that they were to try to earn as many points as possible but especially to try to reach the set goal. Subjects in the two inhibitional conditions were told that they would begin the task with 100 points and that they would lose a point each time they made an error by failing to click on the square before it disappeared. They were also told that they were to lose as few points as possible but particularly not to make more errors than the set goal.

**Acquisitional-Proximal**: Subjects were told that they had 10 trials and that the average person earns 8 points per trial. They were then asked to set and state a per trial goal for all 10 trials.

**Acquisitional-Distal**: Subjects were told that they had 10 trials and that the average person earns 80 points over 10 trials. They were then asked to set and state an overall goal for the 10 trials.

**Inhibition-Proximal**: Subjects were told that they had 10 trials and that the average person makes two errors per trial. They were then asked to set and state a per trial goal for all 10 trials.

**Inhibition-Distal**: Subjects were told that they had 10 trials and that the average person makes 20 errors over 10 trials. They were then asked to set and state an overall goal for the trials.

When all trials were finished, the participant was asked to complete a postexperimental questionnaire. The entire procedure required approximately 20 minutes (see Fig. 5.1).

The manipulations appeared to be successful. Subjects in the acquisitional conditions (points earned for correct hits) reported greater focus on correct hits than subjects in the inhibitional conditions (points lost for errors) who reported greater attention to errors made. Subjects in the proximal goal (per trial goal) conditions reported greater focus on each trial than those in the distal goal (per session goal) conditions who reported greater attention to the session.

**Task Performance**

Recall that performance refers to the number of times the subject, using the mouse, covered the spot before it disappeared. It was hypothesized that acquisitional goals would be associated with better performance than inhibitional goals. Moreover, when the focus was inhibitional (not losing points), distal goals (10 trials) would result in better performance than proximal subgoals (each trial). When the focus was directed to be acquisitional (gaining points), proximal subgoals would result in better performance than distal subgoals. These hypotheses were supported by the data.
Each of these predictions was realized (see Fig. 5.2). There was a significant interaction effect of behavioral focus × proximity of goal. Performance in the inhibitional proximal condition was the lowest, whereas those in the acquisitional-proximal condition performed best. Indeed, both simple effects of goal proximity was significant: When subjects performed the task with an acquisitional focus, as predicted, the more proximal the goal the better the performance; when subjects performed the task with an inhibitional focus, also as predicted, the less proximal the goal, the better the performance. There was a marginal main effect for behavioral focus with better performance in the acquisitional conditions than in the inhibitional conditions. But, as noted earlier, this was true only for the proximal goal conditions.
Subjective Goal: A Potential Mediator

The goal that participants set for themselves prior to beginning the actual computer task was affected by proximity of the assigned goal. Those in the distal goal conditions set higher goals than those in the proximal goal conditions. Also, there was a significant correlation between subjectively set goal and performance ($r = .23$).

The literature shows that the higher a person sets his or her goal, the better he or she performs (Garland, 1982, 1983; Latham, et al., 1978; Latham & Yukl, 1975; Locke, 1968). Because of the established relationship between set goal and performance, a covariance analysis of performance was done with set goal as covariate. This analysis also resulted in a significant interaction effect of behavioral focus and goal proximity with those in the acquisitional condition and setting proximal goals performing best and those in the inhibitional condition and setting proximal goals performing worst (i.e., the means were all correctly ordered). The simple main effect of proximity was significant in the acquisitional condition but not significant in the inhibitional condition. Therefore, although goal proximity had an effect on how high the participants set their goal, this set goal cannot account for the observed differences in task performance.

Perception of Performance:
The Postexperimental Questionnaire

A composite index was calculated for perception of task and performance by combining items asking about distance from goal, difficulty of task, performance compared to other students, and perceived performance on task.
With this composite index as the dependent measure in a 2 × 2 ANOVA with behavioral focus and proximity of goal as between subjects' factors, a significant main effect was found for behavioral focus with subjects in the acquisitional conditions perceiving better performance than those in the inhibitional conditions. This was an accurate perception; the correlation between actual performance and perception of task and performance was substantial, \( r = .70 \).

Where Do We Go From Here?

This study was undertaken in an effort to understand the what-the-hell effect. Whereas more proximal subgoals are generally understood to be associated with better performance, there are circumstances under which the failure to obtain a proximal goal leads the individual to say to himself or herself "what-the-hell" and to stop trying. Herman and his colleagues have systematically observed this effect among dieters. Jefferson Singer (personal communication, 1993) reported a similar phenomenon with drug and alcohol abusers.

Our theoretical analysis of this effect led us to expect an interaction between goal proximity and goal direction (framing). As reported elsewhere in this volume, most personal goals are positive (Singer & Salovey, chap. 10, this volume; Emmons & Kaiser, chap. 4, this volume), or what we term acquisitional. The cognitive construal of such goals is such that even partial progress leaves the individual better off than before; failure is merely a smaller profit. Adequate progress on such goals leads to positive affect (Carver & Scheier, 1990). Inadequate progress is not devastating; although one does not have all that is wanted one is still better off than before. The negative emotion likely to be experienced under acquisitional goal failure is depression, an emotion that is unlikely to be associated with the energy necessary for the initiation of the decision to abandon the goal. Thus, under acquisitional goals, more frequent feedback (i.e., proximal goals) should facilitate performance.

Negative goals, or what we call inhibitional goals, are less frequent (Singer & Salovey, chap. 10, this volume; Emmons & Kaiser, chap. 4, this volume). The focus here is not on acquiring something but on holding back or preventing loss. Failure to meet this goal results in the perception of loss, and losses are regarded as more impactful than logically equivalent gains (Kahneman & Tversky, 1979). Success on such goals merely maintains the status quo and should be associated with less positive affect than success on an acquisitional goal. Failure, however, leads to the emotion of anxiety and agitation (Carver, Lawrence, & Scheier, chap. 2, this volume), a high arousal state that can supply the energy to initiate the decision to abandon the overall goal. At the same time, failure (i.e., an uncontrolled loss) may
tend to be seen in all-or-none terms. Thus, with inhibitional goals more frequent (i.e., proximal) goals may be unproductive and lead to the what-the-hell effect.

The original observation of the what-the-hell effect was associated with real-world, socially consequential phenomena. However, our theoretical abstraction of what is crucial to the phenomenon led us to the laboratory to develop an experimental test. We were able to create a situation in which it was possible to orthogonally manipulate goal focus and goal proximity and to unambiguously measure performance. Our general expectations were confirmed. Overall, performance was best under a positive or acquisitional goal frame. More importantly, we also observed the predicted interaction. For acquisitional goals, more proximal goals resulted in better performance than more distal goals. For inhibitional goals, distal goals resulted in better performance than more proximal goals. The practical implications of this work seem clear and are taken up later. In spite of the fact that the results provided very nice confirmation for our hypotheses, they raise many more questions than they answer. We touch on some of these now.

Some Questions Raised By the Data

Our theoretical analysis for the interaction between goal frame and goal proximity was based on an analysis that overdetermined the outcome. That is to say, the results could have been predicted from our cognitive analysis or motivational/affective analysis alone. For example, positive goals focus on gains rather than losses, and inhibitional goals focus on losses rather than gains. Because gains and losses are differentially weighted (Kahneman & Tversky, 1979), this difference alone could account for the interaction.

It is not clear exactly how to proceed to test this possibility, but it suggests studies in which beliefs alone are free to vary while holding motives and emotions constant. Perhaps preliminary scaling studies could tell us what level of loss is equivalent to what level of reward in some domain. Then losses can be psychologically (rather than logically) matched to gains. If the predicted interaction is significantly decreased (Baron & Kenny, 1986), we would know that this aspect of the differing psychological situations is consequential.

Perhaps what is important in producing the interaction is the agitation associated with failure on an inhibitional goal. It is also difficult to manipulate emotions or motives without also manipulating concomitant beliefs. However, possibilities do suggest themselves. Products containing caffeine produce mild forms of agitation. If affective differences are crucial, then persons who have ingested coffee might be expected to perform more poorly with proximal goals than subjects who have not ingested coffee.
Even more fundamentally, we also do not know if we succeeded in producing a what-the-hell effect. Have subjects in the inhibitional-proximal condition really given up and figuratively (or literally) said what-the-hell and quit trying? How would we know? Asking them is a possibility. Trusting the answer could be risky. Subjects may not be aware of their changing state of mind, and the answer they give readily lends itself to both self- and other deception. Another possibility is refined observation. Giving up implies a qualitatively new psychological state that should be observable: There should be a discontinuity in the behavior. Performance should drop suddenly and stay consistently poorer after someone gives up compared to before giving up. If the model is correct, then trial-by-trial performance should reveal such discontinuities in the inhibitional proximal conditions more than the others. Moreover, these discontinuities should be more likely after failure to meet the subgoal than after success. Obviously, a large number of experimental variations are possible. The point is simply that more theoretical and empirical work is necessary to better understand these results.

Implications

Although more theoretical and empirical work is clearly needed in order to better understand what is going on, there do seem to be some implications from the model for practical situations concerning such behaviors as weight control and alcohol abuse. One implication is relatively straightforward. Although most goals tend to be positive (acquisitive) goals, the reduction of eating or stopping the use of alcohol or drugs are negative or inhibitional goals. If possible, a change to a positive frame would seem productive. Recall that positively framed goals are more productive than negatively framed goals.

How is it possible to frame obviously inhibitional goals positively? A baseball player concerned with batting can have an (inhibitional) goal concerning the number of strikes or an (acquisitional) goal concerning the number of hits. Similarly, instead of thinking that he must cut down on caloric intake, a dieter can reward himself or herself for each meal under a thousand calories. The drug addict can reward himself or herself for time units (e.g., days) with no drugs. In each of these reframed cases, the goal is acquisitional: The individual is trying to amass particular kinds of meals or particular kinds of days.

If reframing an inhibitional goal to an acquisitional goal is too difficult, it may be possible to operate on the proximity of the goal. Recall that goal proximity is negatively related to productivity under inhibitional goals. Thus, if the goal remains inhibitional it would be productive to make the goals more distal. Instead of having a calorie goal per day, the goal could be changed to weekly or even monthly. Less feedback, at least up to a point, seems to result in better inhibitional performance. This solution, however,
is not expected to be as effective as changing the frame to acquisitional. Fewer, more distal subgoals will lead to fewer occasions for the what-the-hell effect but will also decrease the benefit associated with positive feedback (reviewed in the introduction of this chapter).

Even more speculatively, one can focus on the presumed affects associated with acquisitional and inhibitional failures. We have suggested that it is the arousal associated with the failure to obtain inhibitional goals that might provide the energy to change and give up the goal. Therefore, another tack to take with inhibitional goals is to reduce the agitation. Tranquilizers or beta blockers, for example, decrease arousal and, hence, at least theoretically, should decrease the tendency to give up the goal. Giving drugs, however, may provide the wrong example to persons trying to give up drugs or alcohol! (It is noteworthy in this context that amphetamines are often used as appetizer suppressants, and they have the effect of increasing arousal!)

Goals are a ubiquitous form of self-regulation. They facilitate performance in almost every domain. The what-the-hell effect calls our attention to the possibility that there are conditions under which goals are less productive and may even be counterproductive. The identification of such conditions is important for maximizing desirable behavior as well as controlling undesirable behavior. The understanding of such conditions will move the psychology of motivation significantly forward.

SUMMARY

Although proximal goals are often thought to be more effective than distal goals, we have seen that under certain circumstances just the opposite is true. This has been identified as the what-the-hell effect. Our theoretical analysis led us to expect to find the what-the-hell effect when individuals hold inhibitional goals and when their subgoals are relatively proximal. Indeed, when goals were manipulated to be either acquisitional or inhibitional, and when the subgoals were manipulated to be either proximal or distal, these variables interacted to predict performance. Subjects performed better under acquisitional than proximal goals, and goal proximity was positively related to performance under acquisitional goals and negatively related to performance under inhibitional goals. Speculation about theoretical mediators and about applications were also provided.

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