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Goal Effects on Action and Cognition

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Research and theorizing on goals and their effects on affect, behavior, and cognition has become very popular in social psychology, as documented by the many recent edited books (e.g., Frese & Sabini, 1985; Gollwitzer & Bargh, 1996; Halisch & Kuhl, 1987; Higgins & Sorrentino, 1990; Kuhl & Beckmann, 1985; Pervin, 1989) and review chapters (e.g., Bargh, 1990; Chaiken, Liberman, & Eagly, 1989; Karniol & Ross, 1996; Karoly, 1993; Kruglanski, 1990; McIntosh & Martin, 1992; Tetlock, 1992) on this theme. The reasons for this are manifold. Some are rooted in the theoretical developments in the psychology of motivation (see Geen, 1995; Gollwitzer, 1991; Heckhausen, 1991; Kuhl, 1983), others within the impact of the cognitive revolution on social psychology (see Fiske, 1993b; Higgins & Bargh, 1987; Smith, 1994; Stevens & Fiske, 1995).

The psychology of motivation has progressed within recent years from a focus on describing the choice of action goals (an emphasis on goal content) to explaining the processes involved in the willful control of goal-directed action (an emphasis on goal-related behavioral regulation). This new interest in volition led to the embracing of the goal concept, as goals are at the starting point of the willful control of action. Assuming that cognitive activity serves the purpose of controlling action (as noted by James, 1890, "My thinking is first and always for my doing"), process models have begun to examine goal effects on cognition that mediates the regulation of the individual's actions.

But goals also affect cognition for the purpose of aiding the perception of others and deriving meaning from observed social events (though one might argue that ultimately such cognitions are used to help one plan actions—what Bruner, Goodnow, & Austen, 1956, p. 12, called "instrumental activity"). In examining this theme within social psychology, there has been a similar progression from a

focus on describing the impact of a goal on social judgments (goal content) to explaining the willful control of the processes involved in producing judgments (goal-related regulation). This has produced a metaphor of humans as "flexible strategists" who perhaps have a predisposition toward being "cognitive misers," but are capable of exerting their will and controlling the nature of the cognitive processing they expend on a given task. This interest in volitional control of cognitive processing similarly has embraced the goal concept. Thus, despite the impact of the cognitive revolution on social psychology and the attempted neglect of motivational terms (e.g., needs, motives), the goal concept could not be swept away (see Miller, Galanter, & Pribram, 1960; Simon, 1967). Perhaps the goal concept was spared because goals and plans are highly suitable to a cognitive analysis (Carver & Scheier, 1981; Kruglanski, 1996) and played an important role in cognitive science and artificial intelligence (e.g., Wilensky, 1983).

CONSTRUCTION AND REGULATION AS BASIC PRINCIPLES

Research focused on goal content, within the domains of both action and thought, examines how the type of goal a person selects determines some measured outcome variable. Such research begins with a basic assumption that people are active builders of what is experienced as reality. By this it is meant that people bring to their meetings with stimuli from the environment more than the appropriate hardware that simply awaits being triggered by some property of that environment. People have selective interests (reflected by their needs, motives, and goals), either transient or long term, that help to shape the construal of their

social world. This makes action and cognition more than environmentally determined responses. We shall refer to this fundamental assumption as the principle of *active construction*.

Thus behavior is not triggered simply by features of the environment, but by the interaction of those features with the properties of the individual. People choose between many possible courses of action within a particular situation, with any given individual's chosen response to identical environmental features subjected to the review of that person's prevailing idiosyncratic goals. Similarly, features of the environment do not automatically trigger cognition. Rather than there being a one-to-one correspondence between the physical attributes of a stimulus and its mental representation (in which the processing system is seen as a recorder or camera, transcribing fact), perception and inference are viewed as subjectively determined (Allport, 1954). People choose between many possible interpretations within a particular situation, with any given individual's judgments and inferences from identical environmental features subjected to the review of prevailing goals. The individual contributes somewhat more than "a healthy pair of eyes and the appropriate response mechanisms" (Postman, Bruner, & McGinnies, 1948, p. 142). As Vives (1540) noted: "When we affirm that a thing is or is not . . . we judge not according to the things themselves, but rather according to the concept of our mind, because for us the mind is measure of reality, not reality itself."

Research focused on the processes through which goal effects are exerted also begins with a basic assumption. The assumption is that people have desired states toward which they aspire and continue striving toward these ends until the experienced state sufficiently approximates the desired state (or the desired state is altered). Attaining this state provides a sense of coherence for individuals as it allows them to experience the world in a manner that conforms to their beliefs, wishes, desires, values, and needs. Failure to attain it energizes the individual to strive toward achieving coherence. Such strivings, however, are of a procedural nature, and the procedures must somehow be regulated. They need to be protected from obstacles, altered in the face of changing environments and needs, and brought to a halt when either deemed no longer attainable or when sufficiently reached. We shall refer to this assumption regarding processes through which people pursue goals as the principle of *regulated coherence*. Thus, in examining action we shall see that the processes through which goals guide striving toward desired states are regulated through steps such as deliberating, planning, shielding an ongoing course of action, stepping up efforts, and evaluating one's attainments. Similarly, process models in social cognition describe people as striving toward having a sense of coherence with respect to their judgments and inferences. This desired state is met when currently accepted knowledge is experienced as being valid or sufficient (i.e., held with confidence). The processes through which people strive toward this desired state are regulated through steps such as utilizing (or not utilizing) categorizations, schemas, elaborations on new information, effortful consideration of individuating information and information inconsistent with

prior beliefs, reevaluations of previously processed information, and selective recall and attention.

Our objective in this chapter is to review the evidence for these goal-related principles as demonstrated through research on goal effects on action and social cognition. In each of these domains, we focus first on what we have labeled as goal content research and then on what we have labeled as regulated-process research. In each section, goal content research is described as concerned with goal influences on some outcome—how having a goal of a particular content versus one of a different content (or having no goal specified) determines responses. Goal content research on both action and cognition contains assumptions about the sources and the selection of goals, but each has focused more on the impact of a goal of specified content rather than on the manner in which that content becomes specified. Regulated-process research is described as concerned with the processes through which goals help the individual regulate a goal-directed response—how people go about negotiating their strivings. We begin with goal influences on behavior because traditionally goals have been analyzed as directors of action.

Before turning to the analysis of goal effects on action and cognition, we wish to stress the following two points:

1. The goal-related principles previously introduced are in fact partly derived from an assumption about human psychological functioning that has little to do with goals. This initial assumption is simply the belief that humans are bounded in their abilities to respond to the social world. Thus, with regard to action, all possible behavioral strategies within any given situation cannot be implemented, and thus needs and desires must be fulfilled by specifying subsets of goal-directed behavior, only some of which the individual can carry out. Additionally, certain behaviors within this subset may not be feasible to enact because the person lacks the *capability* to do so. It is within this realm of first deliberating on wishes and desires and then implementing the processes through which these get translated into action (in the face of obstructions and diversions) where goals exert their impact, and the choice as to how to regulate behavior begins.

Similarly, with regard to cognition, the stimuli presented in any situation are too numerous and complex for total representation by the information processing system.¹ Thus, only certain elements from the "great blooming, buzzing confusion of the outer world" (Lippman, 1922, p. 55) are selected for cognitive processing, with other information being "filtered" out (see Broadbent, 1958; Bruner, 1957; Deutsch & Deutsch, 1963; Treisman & Geffen, 1967). Additionally, certain information that the individual desires to process that passes through the attentional filter may not be feasible to deliberate on because he or she lacks the cognitive *capacity* to do so. Whereas performance of many tasks (such as identifying the letters on this page) proceeds relatively automatically (Bargh, Chapter 6, this volume), other more effortful tasks (such as making complex judgments) require mental operations that usurp capacity and may suffer deficits when requisite capacity is unavailable (e.g., Gilbert, 1989). It is within this realm of first selecting and

then processing information where needs, motives, and goals exert their impact, and the struggle as to how the individual will perceive a given piece of information begins. This human struggle to "capture" elements from the complex stimulus array bombarding their senses, and in so doing understand and attain meaning from their social world is the focus of social cognition.

2. In discussing willful control of action and thought, goals as related to issues of volition, and people as guided by *selective* interest, we are not suggesting that such control and selection must be conscious and effortful. Control can be passive—and this does not mean that people do not have volition, have not selected their goals, or are under the control of the environment (see also Fiske, 1989; Uleman, Newman, & Moskowitz, 1996). When goal pursuit is surrendered to an environmental triggering stimulus, this is not equivalent to saying the environment alone is determining responses. The environment is still interacting with goals simply in a passive way by routinizing the goals so that they operate efficiently and effortlessly (see Bargh, 1990; Bargh & Gollwitzer, 1994). People are active, flexible constructors of social reality, but this construction and their contribution to it either can be under conscious control, or it can be passive—exertions of the will need not be effortful and carried out only after other passive processes, such as inference or belief formation, have already been carried out (a position in contrast to arguments by Devine, 1989; Gilbert, Tafarodi, & Malone, 1993, and one we will return to later).

GOAL INFLUENCES ON BEHAVIOR

Historical Background

Behaviorism

According to the behaviorists, goal-directed behavior is easily recognized by a number of observable features. Tolman (1925) highlighted the following characteristics:

When a rat runs a maze, it is to be observed that his running and searching activities persist until food is reached. And it appears that his persistence is the result of the physiological condition of hunger. We do not know whether the rat, in so "persisting," is "conscious"; we do not know whether he "feels a purpose" (to use the terminology of the mentalists); but we do know that, given (1) the physiological condition of hunger and given (2) the objective conditions of the maze, the rat thus persists until the food is reached. It is this purely objective fact of persistence until a certain specific type of goal object is reached that we define as goal seeking. (pp. 285–286)

Later behaviorists (e.g., Bindra, 1959) extended this definition. Besides persistence, the main definitional feature mentioned by Tolman, researchers pointed to the appropriateness of goal-directed behavior in the sense that the goal-directed organism adopts an effective course of action in response to variations in the stimuli connected with the goal. If one route to goal attainment is blocked, another course of action to the same goal is taken. Or if the goal changes in its location (e.g., a rat trying to escape a cat), the goal-directed organism (i.e., the cat) readily adapts to these

changes by actions that correspond to the variations of the goal. Finally, besides persistence and appropriateness, goal-directed organisms also show hyperactivity when exposed to the stimuli associated with a previously experienced goal. This restlessness is commonly referred to as searching for the goal.

The behaviorists spelled out the observable features of goal-directed behavior (persistence, appropriateness, and searching), but what qualifies as an actual goal? According to the behaviorists, goals specify powerful incentives, whereby incentives are defined as objects and events that affect an organism's behavior radically and reliably (e.g., food, sexual stimulation, sudden loud noise). Whether an object or event is treated as a goal or an incentive, however, depends solely on the investigator's perspective on the organism's behaviors. If the investigator selects a certain incentive as the reference point for the description of behavior, this incentive becomes a goal. A behaviorist researcher's statement that food is a goal to the hungry organism means nothing more than (1) that it is known that food is an incentive to this organism, and (2) that the researcher has chosen to describe the behavior of the organism in relation to food rather than in relation to any other object or event.

In the behaviorist tradition, the reference point for goal-directed behavior is apparently not the intention or the goal set by the organisms themselves. Behaviorists do not analyze the internal goal or the goal-setting processes, and whether or how a self-set goal affects behavior. For the behaviorist, a goal is just an incentive that is chosen by the investigator as a reference point for describing observed behavior. Skinner (1953) phrased this most cogently when he referred to goal directedness as an effective and easy-to-handle category for the description of behavior resulting from some kind of operant conditioning.

The reference point of modern goal theories is, in contrast to the behavioristic view, the internal, subjective goal. Goal-directed behavior is studied in relation to goals held by the individual (e.g., a person's goal to stop smoking serves as a reference point for his or her efforts to achieve this goal). Research questions focus on whether and how setting such goals affects a person's behaviors. Some critics of modern theorizing on goals claim that goals are not important determinants of behavior; if anything, goals qualify as effective categories for the objective description of a person's course of action. This criticism, however, is uncalled for, given the many empirical demonstrations of the behavioral and cognitive effects of subjective goals in recent years (to be reported in this chapter). This critique is obviously stimulated by the behaviorist tradition of using goal-directedness as a descriptive category. But behaviorists never doubted that subjective goals may affect a person's behavior; they simply did not bother to analyze such effects and the mechanisms on which they are based (see Bindra, 1959).

Another behaviorist tradition has survived in modern theorizing about goals, this one being more profitable than harmful. It is the classic distinction between needs (motives), incentives, and goals. As seen in Tolman's vivid description of the hungry rat's persistent striving for food, it is the need (hunger) that points to a respective incentive

(food), and it is the animal's efforts at approaching the incentive that qualifies as goal striving. In a parallel way, social psychologists today speak of needs (e.g., need for approval) as circumscribing various classes of incentives (e.g., being popular or accomplishing outstanding scientific achievements), and of goals as intentions to attain these incentives. Geen (1995) has defined the concept of incentive as denoting a broadly defined desired outcome that subsumes several classes of lower order goals. Incentives (e.g., being popular with friends or outstanding scientific achievements) are considered to be the product of a person's need (i.e., the need for social approval) and aspects of the experienced situational demands (i.e., the person's friends or the scientific community, respectively). The intentions to attain the incentive to be popular or to accomplish outstanding achievements are understood as higher order goals that may be served by a multitude of lower order goals (e.g., intending to use the weekend to visit friends or to write an outstanding article, respectively).

Mentalism

The modern theoretical perspective that goal-directed behaviors are to be analyzed in relation to people's subjective goals has its own historical precursors. These reach back far beyond the heyday of behaviorism. William James (1890), in his *Principles of Psychology*, included a chapter on the will in which he discussed the following questions: How is it possible that a behavior which a person intends to perform (i.e., has been set as a goal by this person) fails to be executed? James referred to such problems as issues of the obstructed will, but he also raised questions related to what he called issues of the explosive will (i.e., How is it possible that an undesired behavior is performed even though we have set ourselves the goal to suppress it?). How different James's analysis of goal-directed behaviors is to that of the behaviorists becomes quickly apparent by considering James's well-known example, in which goal setting fails to have its desired effect:

We think how late it shall be, how the duties of the day will suffer; we say, I must get up, this is ignominious, etc. But still the warm bed feels too delicious, the cold outside too cruel, and the resolution faints away and postpones itself again and again just as it seemed on the verge of bursting the resistance and passing over into decisive act. Now how do we ever get up under such circumstances?

This example rests on the assumption that behavior can potentially be regulated by a person's resolutions (or intentions, subjective goals) even though in certain situations and at certain times this may be difficult. In any case, the individual's subjective goal is the reference point for the goal-directed action and not a powerful incentive focused on by an outside observer (or scientist). The question raised by James is whether people meet their goals in their actions, not whether their actions toward an incentive carry features of persistence, appropriateness, and searching.

A further prominent historical figure in the theorizing about subjective goals and their effects on behavior

is William McDougall. In his *Social Psychology* (1908/1931) he was so intrigued by the issue of purposeful or goal-directed behavior that he proposed a novel psychological theorizing (i.e., hormic psychology) to account for its uniqueness. McDougall explicitly saw the reference point for goal-directed behavior in a person's subjective purpose or goal. He postulated that subjective goals guide a person's behavior. This guidance is thought to be achieved through cognitive activity that pertains to the analysis of the present situational context and the envisioned event or goal state to be realized. Furthermore, progress toward and attainment of the goal are seen as pleasurable experiences, and thwarting and failure are seen as painful or disagreeable. With respect to the observable features of goal-directed activity, however, McDougall referred to the same aspects as the behaviorists (e.g., persistence, appropriateness).

German Will Psychology

In the history of German psychology, the issue of goal-directedness of behavior played a particularly prominent role and resulted in an intensive exchange of opinions. This controversy started at the beginning of this century and lasted up to the 1930s. The main protagonists were Narziss Ach (1905, 1910; for a summary, see Ach, 1935) on the one hand, and Kurt Lewin (1926) on the other. In an attempt to establish a scientific analysis of the phenomenon of volitional action or willing (*Willenspsychologie*), Ach employed a simple experimental paradigm. Subjects were trained to respond repeatedly and consistently to specific stimuli (e.g., numbers, meaningless syllables) with certain responses (e.g., add, rhyme). When these responses had habituated, subjects were instructed to employ their will and execute antagonistic responses (e.g., subtract, read). Ach discovered that forming the intention to respond to the critical stimuli with an antagonistic response helps "to get one's will."

The theorizing on how an intention achieves the reliable execution of the intended action was based on the concept of *determination*. Ach assumed that linking in one's mind an anticipated situation to a concrete intended behavior creates what he called a determination, and that this determination in turn would urge the person to execute the intended action when encountering the specified situational stimulus. The strength of the determination should depend on how concretely people specify the anticipated situation; concreteness was thought to intensify determination. Moreover, the intensity of the act of intending (willing) should also increase determination, because intensive willing induces a heightened commitment. Determination was expected to directly elicit the intended behavior without a person's conscious intent to get started. Ach speculated that determination may affect perceptual and attentional processes so that the specified situation is cognized in a way which favors the initiation of the intended action.

Kurt Lewin (1926), who scornfully termed Ach's ideas a "linkage theory of intention," proposed a need theory of goal striving. Intentions, like needs, are assumed to assign a valence (in German: *Aufforderungscharakter*) to objects and events in people's social and nonsocial surroundings.

For a person who intends to mail a letter (Lewin's favorite example), a mailbox entices (or at least calls or reminds) him or her to deposit the letter, much like food entices a hungry person to eat. Because needs can be satisfied by various types of behaviors, which may all substitute for each other in reducing need tension (e.g., eating fruit, vegetables, or bread), many different intention-related behaviors qualify for satisfying the quasi-need associated with an intention. The amount of the tension associated with the quasi-need was assumed to directly relate to the intensity of a person's goal strivings. The exact amount of tension may vary. First, it is affected by the degree of quasi-need fulfillment (i.e., tension comes to a final rest only when the goal is achieved), but it is also thought to depend on the strength of relevant real needs (i.e., superordinate drives and general life goals) and how strongly these are related to the quasi-need. For a person with strong affiliative needs but weak achievement needs (or professional goals) a mailbox, for example, acquires more valence when that person intends to send off letters inviting people to a party than when he plans to send out a job application. Lewin's tension state metaphor effectively accounts for the flexibility of goal striving (which is pointed to by the behaviorists with the concept of appropriateness). It is assumed that people commonly see more than just one route to goal achievement (e.g., contacting a friend), and that all these routes may substitute for each other (e.g., phone, fax, e-mail, letter). In other words, an intention can be realized many different ways, and the blocking of one of them should readily lead to attempts to realize the intention through alternative routes (Lissner, 1933; Mahler, 1933; Ovsiankina, 1928).

The major difference between Ach's and Lewin's accounts of how intentions affect behavior is the following: Lewin employed classic motivational variables such as needs and incentives (valences), and attempted to predict the effects of intentions on the basis of these variables. Ach, however, focused on how people form intentions, and attempted to predict the effects of intentions by the intensity of the act of intention formation and the framing of the intention. He postulated that these volitional (willing) variables functioned independently of the motivational basis of an intention.

Modern Goal Theories

Many of the ideas on goal-directed behaviors as presented by James, McDougall, the German psychology of will, and to a smaller degree the behaviorists, will be recognized by the reader as we proceed to present-day goal theories. There is a general difference in style of theorizing and doing research between then and now, however. Historic theorizing on goals is characterized by relentless conceptual and empirical battles (e.g., McDougall against the behaviorists, Lewin against Ach), but a scarcity of different ideas on the functioning of goals (e.g., only two opposing views in the German will psychology: Ach vs. Lewin). Today there are no big theoretical controversies, and we hardly observe experiments that critically compare different theories; but there is a wealth of different theories and ideas on goals and goal-directed behavior. To arrive at a

comprehensive presentation of these many different views, we have grouped them according to aspects of similarity, which has led to two major categories:

1. Content theories of goal striving, which attempt to explain differences in goal-directed behaviors and their consequences in terms of what is specified as the goal by the individual. Differences in goal content (in terms of structural or thematic features) are expected to drastically affect a person's behaviors.
2. Self-regulation theories of goal striving, which attempt to explain the volitional processes that mediate the effects of goals on behavior. Of the two types of self-regulation theory, one is more motivational, the other is more cognitive.

Goal Content Theories

Goal contents vary as goals may be challenging or modest, specific or vague, abstract or concrete, proximal or distal, framed with a negative or positive outcome focus, and so forth. But goal contents may differ not only in these structural features, but also in their thematic issues, as goals cover different themes depending on the type of needs and incentives on which they are based. Moreover, the kind of implicit theory the individual holds on the functioning of the subject matter involved further determines goal content.

Goal content theories analyze the effects of differences in goal content on various aspects of goal achievement (e.g., quantity and quality of goal achievement) and with respect to relevant side effects (e.g., subjective well-being) of the goal pursuit at hand. The research strategy adopted by goal content theorists contrasts goals of the dimension of interest (e.g., specific vs. vague goals, goals based on autonomy needs vs. goals based on material needs) on a relevant dependent variable (e.g., quantity or quality of performance or subjective well-being).

Goal Specificity. The prototype of a goal content theory is the goal-setting theory put forth by the organizational psychologists Locke and Latham (for a summary, see Locke & Latham, 1990). The theory was meant to offer applied psychologists a "theory of work motivation that works." The basic thesis is that challenging goals that are spelled out in specific terms have a particularly positive effect on behavior. In more than 400 mostly experimental studies (as counted by Locke & Latham, 1990), challenging, specific goals were superior to modest, specific goals, as well as to challenging, vague goals (i.e., "do your best" goals). In a typical study conducted in a work setting (Latham & Yukl, 1975), wood-cutters were sent out to the forest equipped with goals of different contents or no goals at all. Challenging goals (i.e., standards above what can be achieved with normal effort expenditure) led to higher productivity than that observed in the no-goal control group, but only when these challenging goals were formulated in specific terms (e.g., exact number of trees to be cut or number of m²). Specific nonchallenging goals implying modest standards failed to increase productivity, as did challenging but vague goals, such as "do your best."

Over many years of research, Locke and Latham have explored moderators and mediators of the observed goal specificity effect. What modifies the effect? Subjects need to get frequent performance feedback, they should feel highly committed to work on the tasks at hand, the tasks should not be too complex, and limitations in talent or situational constraints should not make task performance impossible. What does not seem to matter is whether goal setting is determined from outside (i.e., assigned goals) or freely chosen by the individuals themselves (i.e., self-set goals) or in interacting with others (i.e., participative goals). Locke and Latham speculate that assigned goals with high standards create a challenge similar to self-set goals of the same difficulty, and that difficult assigned goals are interpreted as a hint that somebody believes the individual can achieve the goal. This in turn should stimulate stronger feelings of self-efficacy and thus better performance.

Locke and Latham also raised the question of what mediates the goal specificity effect. Specific challenging goals increase people's persistence—they work longer on the task at hand. If the time to be spent on the task is limited, people work with greater intensity or effort. As heightened persistence and effort affect the quantity and quality of most task performance, these variables qualify as effective mediators of the goal specificity effect. Finally, Locke and Latham report that people with specific challenging goals focus their attention on the execution of behaviors that lead to goal achievement, while ignoring possible distractions. In addition, it is speculated that people with specific challenging goals show a greater readiness to plan their goal pursuits, which leads to conceiving more and better strategies to implement the goal. But most likely, specific challenging goals have feedback and self-monitoring advantages as is assumed by Bandura and Schunk (1981) for proximal goals compared with distal goals (to be discussed).

But what are the sources of specific challenging goals? Locke and Latham (1990) list two determinants, each affected by different factors. The first is the individual's perceived performance capability; the second is the perceived desirability of performance. The former is influenced by the individual's previous performance history and how it is interpreted by the individual (i.e., relevant outcome expectations, causal attributions, perceived ability, and experienced feelings of self-efficacy). The latter is affected by outside factors (e.g., goal assignments, role models, group norms, competitions, group goals) and inside factors (e.g., the valence of the goal as determined by the individual's needs, dissatisfaction with previous performances, or mood). For Locke and Latham (1990), however, it is not the difference in sources (e.g., different needs) that matters. What matters is whether the goal content is framed in a challenging specific or nonspecific way. They focus on a structural feature of goal content (i.e., specificity, challenge), and not whether the goal is based on one source or another.

Needs as Sources of Goals. Deci and Ryan (1991; see also Deci, 1992) have criticized this point of view by stating

that not all goals are "created equal." According to Deci and Ryan, goals affect a person's behavior differently depending on the kind of need that is the source of a person's goal setting. If two students in an art class contemplate creating an interesting painting, Student A may set herself the goal of pleasing her parents, whereas Student B focuses on her intrinsic joy in creating an interesting piece of work. Based on their self-determination theory, Deci and Ryan postulate that goals in the service of autonomy, competence, and social integration needs lead to better performances in the sense of greater creativity, higher cognitive flexibility, greater depth of information processing, and more effective coping with failure. Deci and Ryan argue that these effects are mediated by a certain kind of self-regulation; the respective needs of autonomy, competence, and social integration are assumed to further autonomous, self-determined, and authentic goal striving. This positive kind of goal activity is contrasted with being unreflectively controlled from outside (e.g., goal assignments by authorities) or from inside (e.g., goal setting based on feelings of obligation).

Deci and Ryan also discuss side effects of goal-directed actions. The effects of a person's goal-directed actions are not only analyzed in terms of the successful realization of the goal, but also in terms of various desired and undesired side effects. Goals based on autonomy, competence, and social integration needs are associated with more positive subjective well-being and higher life satisfaction. Kasser and Ryan (1993) differentiated the contents of various life goals in terms of how well they correspond to autonomy, competence, and social integration needs. Goal contents in accordance with these needs are, for instance, to cultivate one's relationships to friends, or to become active in communal services. Goal contents such as making money, becoming famous, and acquiring high status do not qualify. If people are setting themselves goals of the latter type, they experience a reduced level of subjective well-being. According to Kasser and Ryan, this is particularly true for people who feel highly efficacious with respect to relevant goal-directed actions. This finding implies that people who successfully implement materialistic goals are particularly at risk for low subjective well-being.

Subjective well-being has been analyzed within the framework of other goal content approaches as well. Emmons (1989, 1996) focuses on goals that specify what a person is typically trying to do. Examples of such personal strivings are "trying to overcome shyness with strangers," "avoiding being dependent on others," and "making others feel good about themselves." These goals, which cannot be achieved by a single course of action are, like other personality attributes, relatively stable over time and consistently expressed in a variety of situations. Emmons (1991, 1996) reports that a strong predictor of a person's positive subjective well-being is having a high proportion of intimacy strivings within the total number of strivings. A high proportion of achievement and power strivings, however, tends to be related to higher levels of negative well-being. The level of concreteness/abstractness of a person's strivings also seems to play an important role (Emmons, 1992). High-level