

Motivation

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Glossary

Achievement motive A capacity to derive pleasure from mastering challenging tasks.

Affiliation motive A capacity to derive pleasure from having close, harmonious relationships with others.

Extrinsic motivation Externally regulated, controlled form of goal pursuit.

Incentive Affectively charged stimulus that elicits goal-directed, motivated action.

Intrinsic motivation Internally, autonomously regulated goal pursuit.

Mastery goal A goal that aims at improving one's competence or performance level relative to one's previous performance.

Motivation Affectively charged state that energizes and directs action aimed at the attainment of a reward (or avoidance of a punishment).

Motivational congruence State of alignment between a person's implicit motives on the one hand and explicit goals and values on the other.

Motive A stable disposition to seek a particular type of reward and experience its attainment as pleasurable. Stable personality disposition to experience particular types of incentives as pleasurable.

Performance goal A goal that aims at demonstrating one's competence relative to others or a social norm.

Power motive A capacity to derive pleasure from having physical, social, or emotional impact on others.

Self-determination The autonomous setting and pursuit of a goal.

Introduction

The term *motivation* characterizes an affectively charged state that energizes and directs action aimed at the attainment of a reward or avoidance of a punishment. For instance, a food-deprived bear experiences hunger (*affectively charged state*) and therefore orients its attention and behavior toward cues in its environment that signal the availability of food (*directing function* of motivation). The hungrier it is, the more vigorously, quickly, and frequently it will go after berries, honey, and prey (*energizing function* of motivation). Here, the reward is food, and obtaining sufficient amounts of it will satisfy the bear's hunger and thus end this particular motivational episode.

In this case, the affectively charged state at the core of the motivational state was due to deprivation – the bear had not eaten for a long time and the body's nutrient levels had to be replenished. Still, the bear had to be sensitive to suitable cues in the environment that signaled the availability of food – so-called incentives – and ignore many other cues. This highlights an important principle in motivation science: goal-directed behavior is a joint product of the individual's internal need (hunger in this case) and situational incentives (food-related cues) that allow the expression of this need. This also means that individuals with a stronger need become more motivated by the same incentive cue than individuals with a weaker need. Thus, individual differences in transient as well as enduring motivational needs are important for motivation. Conversely, some incentives are more 'incendiary' and luring than others, with the former eliciting more motivation than the latter in individuals with similar motivational needs. In extreme cases, high incentive value can even beat motivational need, as when people ignore signs of satiety after a full meal

and cannot resist the lure of an ice cream box or a bag of potato chips.

The fact that the bear ceases its search for food after it has gorged itself on berries and honey, that it has actually stopped being motivated to seek food, highlights another important principle of motivation: it is dynamic. A specific episode of motivated behavior is set in motion by the interplay of an internal need and the presence of suitable external incentive cues and persists until the individual reaches the desired reward. Motivation for pursuing the reward then stops and the individual is free to engage in other motivational pursuits. For instance, a person who was hungry and in single-minded pursuit of food will be free to think of and do other things once the craving for food has been stilled by eating a full meal.

Motivation also guides learning of reward-predictive signs and behaviors that are instrumental for obtaining a reward. For instance, the bear from the above example may learn to associate a certain patch of the woods or a particular smell therein with the taste of mushrooms and berries, because both can be found on a specific type of soil with its characteristic look and scent and both signal that food can be found with high likelihood here. And it may learn to carefully pluck the berries from the bush with its snout without getting pinched by the thorns. The more motivated the bear is, the quicker it will learn both the food-predictive signs and effective food-gathering behavior.

While the above examples only involved motivational needs and processes that all higher species share (such as hunger and feeding, and also dominance, affiliation, sexual reproduction, etc.), there is an important distinction between animals and humans: only the latter can set and pursue abstract goals, goals that are rooted in a person's culture, that can be verbally communicated to and coordinated with other

humans, and that have the capacity to override and suppress more biologically based forms of motivation. For instance, people can set and pursue diet and fitness goals that make them forsake food and leisure time that their bodies may crave but that provide them with a sense of meaning and purpose, sometimes even at the expense of hedonic pleasure. There is thus a fundamental difference between verbally mediated, conscious forms of motivation, represented by the goals people set and pursue in their daily lives, at home and at work, and the types of motivation humans share with other animals and that do not necessarily require language or consciousness for their proper enactment (e.g., eating, drinking, social closeness, dominance, sex). Both types of motivation can effectively guide behavior, but for different reasons: biologically based motivation, because it ensures the attainment of pleasurable, rewarding, and ultimately survival-enhancing goal states; and culturally based goal pursuits, because they enhance social coordination and provide human lives with a sense of meaning.

Motivational dispositions and processes are most frequently studied from the perspective of biopsychology, social psychology, and personality psychology. Biopsychology, using animals as research subjects, allows the experimental manipulation of brain areas assumed to be involved in motivation across mammalian species and studies the effects of these manipulations on behavioral markers of motivation. Social psychology studies the effect of situational factors on human motivation, as assessed through questionnaires, cognitive processes, and behavioral observation, and is interested in drawing conclusions about general features of motivating stimuli and contexts as they apply to all people. Personality psychologists are interested in individual differences that make people respond differently to the same types of incentives. Individual differences in motivational dispositions and processes are most frequently assessed through questionnaire measures, although indirect measures (such as content coding of verbal material) and cognitive-process measures are also employed. Affective and social neuroscience, an emerging new field that cuts across the three previously mentioned research approaches and that uses brain imaging methods in combination with behavioral and questionnaire data in human subject populations, rapidly provides new approaches and opportunities for studying motivational dispositions and processes.

Approach and Avoidance Motivation

A fundamental distinction in the psychology of motivation is the one between approach motivation (aimed at the attainment of rewards) and avoidance motivation (aimed at the avoidance of frustrations and punishments). The latter can be subdivided into active avoidance, characterized by active execution of instrumental behavior aimed at moving away from a punishment (such as running away from a predator if it is still some distance away), and passive avoidance, characterized by the behavioral inhibition of behavior in order to avoid a punishment (such as being very still when a predator passes by in the vicinity).

Based on the distinction between approach and avoidance motivation, Jeffrey Gray developed reinforcement sensitivity theory, a biopsychological model that incorporates three basic systems presumed to underlie any motivated behavior.

(1) A behavioral approach system (BAS) that energizes behavior aimed at the active attainment of learned and natural rewards as well as attainment of stimuli indicating safety or nonpunishment. The BAS is essential not only for active approach motivation, but also for active avoidance motivation, because it facilitates behavior aimed at reaching rewarding safety. It is associated with the brain's mesolimbic dopamine system, a key structure for motivated behavior. (2) The fight-freeze-flight system (FFFS) generates behavior aimed at the avoidance of imminent learned and natural punishers as well as experiences of intense frustration. This system is associated with the periaqueductal gray, the medial hippocampus and the amygdala and is essential for escape and defensive aggression. (3) The behavioral inhibition system (BIS) gets involved when an individual's approach and avoidance goals are simultaneously activated, that is, when both the BAS and the FFFS are equally engaged. Once BIS gets activated, premature action tendencies elicited by either the BAS or the FFFS are inhibited and the individual is instead put into an enhanced cognitive-processing state that allows him to collect more information to resolve the current approach-avoidance conflict in one direction or the other. This might, for example, be the case in situations in which an animal tries to reach available food in an area where a potential predator is present. The septohippocampal system represents the neuroanatomical basis of the BIS. Behaviorally oriented animal studies provide ample support for the validity of Gray's model, as do neuroimaging and behavioral studies with normal and clinical human populations.

Another theory about the neurobiological basis of approach and avoidance motivation was suggested by Richard Davidson. Research on victims of strokes and other accidents that scar the brain's tissues links differences in the location of a stroke to differences in subsequently experienced symptoms of depression. Specifically, strokes in the left but not the right frontal cortex are responsible for diminished positive affect. Looking at normal, healthy individuals, Davidson found that the induction of positive mood was associated with increased left frontal cortex activity while the induction of negative mood was connected to higher right frontal activity. Moreover, he also found that differences in left versus right frontal activity relate not only to transient emotional states but also to enduring differences in personality traits. People with habitual higher left frontal cortex activation under resting conditions characterize themselves as more extraverted, outgoing, and emotionally positive, while people with higher right frontal cortex activation describe themselves as more prone to anxiety, mood swings, and negative emotionality. Davidson therefore concluded that positive affect, either as a state or as a trait, is associated with left frontal activation and negative affect with right frontal activation. However, the frontal cortex is not itself the seat of affective states or dispositions; rather, it exerts inhibitory control over subcortical affect generators such as the amygdala, and research has shown that this is the reason why differences in frontal cortex activation are associated with differences in positive and negative affect.

The relationship between cortical asymmetries and motivation was further elaborated by Eddie Harmon-Jones who contended that higher left frontal activity is not necessarily related to more positive affect per se but rather to increased approach motivation. He found that negative emotional states, such as

anger, can also be associated with elevated left frontal cortex activity. More specifically, trait and state anger as well as behavioral aggression, although all representing negative affect, are associated with greater left than right prefrontal activation. Harmon-Jones argues that anger is an approach-related affective state that occurs if the way to a cherished goal or reward is blocked and the obstacle can be removed. He therefore argues that it is more accurate to link left frontal activity to approach motivation and right frontal activity to avoidance motivation than to positive or negative affect per se.

Other neurobiological models of motivation also assume the existence of separate systems for approach and avoidance motivation, but postulate additional systems that can help make behavior flexible beyond reflex-like responding to rewards and punishers. There is evidence for the existence of an additional impulse-control system that can restrain the impulsive, stimulus-driven effects of approach and avoidance motivational systems on behavior and bring behavior under the guidance of analytical thinking, the setting of deliberate plans and goals, and verbal self-instructions or instructions from others. The impulse-control system enables humans to delay gratification of motivational needs for extended periods of time (e.g., being able to sit through a lecture despite feeling hungry) and appears to be associated with the neurotransmitter serotonin.

More recent theories of motivation emphasize the interaction between motivational states and cognitive processes. For instance, Julius Kuhl's personality systems interaction (PSI) theory links functional properties of positive and negative affect to four cognitive processing systems. According to PSI, positive affect activates an intuitive behavior control system that is specialized in executing automatic, well-established behavioral programs and is functionally similar to Gray's BAS. If intuitive behavior runs into trouble and is no longer adaptive, positive affect is reduced. This in turn switches off the intuitive behavior control system and instead activates a cognitive system dedicated to analytical thinking and the careful crafting of behavioral plans and strategies. Negative affect, on the other hand, facilitates object recognition in the service of a thorough analysis of unexpected events and situations, a function that is similar to Gray's BIS. When the environment matches one's expectations, on the other hand, negative affect is decreased, which in turn switches off object recognition and activates a system called extension memory, a broad network of knowledge about the world and the self. Thus, in PSI, high or low positive or negative affect is functionally related to distinct cognitive processes and motivational states.

Despite obvious differences in all these theoretical accounts to approach and avoidance motivation, with some being more concerned with the neuroanatomical basis, others with hemispheric differences or the role of affect and cognition, there is extensive empirical evidence for each model and it seems possible that they may 1 day be integrated into a comprehensive theory of the generation and regulation of approach and avoidance motivation.

Implicit Motives

Whereas approach and avoidance motivation characterize general behavioral trends toward rewards and away from

punishers, motives define the specific types of incentives individuals strive for. A motive is a capacity to experience a specific type of incentive as pleasurable. Motives drive, orient, and select behavior that aims at obtaining motive-specific incentives and satisfying the motivational need. For instance, a person with a strong food motive has a particularly well-developed capacity to relish the taste of food. When this person's food motive is aroused (i.e., if she feels hungry), she will act in such a way as to find a food source, prepare, and eat the food, thereby satiating her appetite. Motives are implicit in the sense that they are rooted in specialized brain systems developed over evolutionary time spans, operate outside of a person's conscious awareness and therefore have to be assessed indirectly, such as by content coding of verbal material. Such indirect motive measures predict a large array of motivational phenomena, ranging from physiological and neural responses to incentive stimuli, to economic success and political action, but frequently fail to overlap with people's explicit declarations of their motivational needs and goals.

Three motives have received particular attention from researchers over the past 60 years: these are the need for achievement (n Achievement), a capacity to derive pleasure from the autonomous mastery of challenging tasks; the need for affiliation (n Affiliation), a capacity to derive satisfaction from establishing, maintaining, and restoring positive relationships with others; and the need for power (n Power), a capacity to enjoy domination and having an impact on others or the world at large.

Individuals high in n Achievement strive to do something better for their own sake, simply for the intrinsic satisfaction of doing something better. The incentive to do better is strongest when the task at hand is of moderate difficulty. If a task is too simple there is little challenge in doing it better. On the other hand, if a task is extremely difficult and therefore has a very low probability of being completed, then the likelihood of failure is very high and this makes it almost impossible to do better. Moderately difficult tasks therefore provide achievement-motivated individuals with the best opportunity of improving a skill or competency. In the workplace, individuals high in n Achievement frequently try to improve their personal performance and meet or exceed standards of excellence. This can have positive results, such as when employees surpass self-imposed standards, accomplish something new and make long-term plans for their career. For managers, however, a high level of n Achievement can lead to negative side-effects such as micromanaging, offering little positive feedback to subordinates, expressing impatience with poor performers, and a higher focus on goals than people.

Individuals with a high n Affiliation learn social relationships more quickly, engage more often in dialogue with others, and maintain their connections with other people via letter writing, telephone calls, personal visits, etc. Organizational leaders with a strong affiliation motive experience a need to maintain close, friendly relationships with others. As a result, such leaders avoid confrontation, look for ways to create harmony, avoid giving negative feedback, with a general focus on people rather than on performance. While an aspiration to be liked and accepted might not conform well to the demands of most managerial positions, this characteristic is indispensable for success in positions in which a person is responsible for integrating employees.

The way in which the implicit power motive manifests itself varies widely across people, socioeconomic classes, professions, cultures, regions, and, in some circumstances, gender. With few exceptions, most societies are ambivalent about individuals' desire to dominate others. For this reason, individuals with a high *n* Power must find socially acceptable outlets for satisfying this need by, for example, participating in highly competitive or high-risk sports, choosing influential occupations, collecting prestigious possessions, and seeking recognition in small groups. In leadership contexts, *n* Power is differentiated into socialized and personalized power. A manager with a high need for personalized power seeks to be strong and influence others by being coercive, even ruthless, wanting to control or manipulate others, and focusing on reputation maintenance rather than management of subordinates. Leaders with a high need for socialized power strive to help people feel strong and more capable. In other words, this type of leader strives for power in order to empower others. This individual's leadership behavior is characterized by coaching and teaching, being supportive to subordinates, involving others in the decision-making process, with an overall focus on the group instead of on the self.

Explicit Motivation: The Self-Concept, Goals, and Values

In contrast to implicit motives, which influence motivation and behavior nonconsciously, individuals' explicit, language-based self-concept, values, and goals afford conscious modes of behavioral regulation. The self-concept represents an individual's mental image or perception of 'the self,' encompassing the temporally stable self-knowledge of this particular individual (e.g., one's personality attributes, knowledge of one's skills and abilities, one's occupation and hobbies, and awareness of one's physical attributes), including her or his attitudes, affective preferences, values, goals, and life story. In other words, the self-concept is viewed as a system of affective-cognitive structures providing coherence for the individual's self-relevant experiences. It refers to the sum total of an individual's beliefs about his or her own personal attributes. It is made up of self-schemas, that is, knowledge structures that guide the processing of self-relevant information and determine how people interpret new information and organize past experiences in their memories. A person's self-concept is complex, dynamic, and may change over time.

It is important to note that the self-concept is not restricted to the present. Conceptions of the self in the future are called 'possible selves.' They represent individuals' perceptions of what they might realistically become, what they would very much like to become ('ideal self'), and what they are afraid of becoming ('feared self'). In other words, an individual's repertoire of possible selves can be viewed as the cognitive-affective manifestation of enduring goals, aspirations, fears, and threats. Possible selves are cognitive links between the present and the future, specifying how individuals may change from what they are now to what they will become. That is, if a current self-concept is challenged or supported, it is often the nature of the activated possible selves that determines how the individual feels and what course the subsequent action will take. Possible selves thus function as incentives for future behavior and allow

comparisons of present and desired future states, providing a frame of reference for the assessment and evaluation of current goal attainment.

Personal goals have been defined as personally meaningful concerns, projects, or strivings people pursue and try to attain in their everyday lives. Similar to motives, goals are relevant to the regulation of behavior. However, unlike implicit motives, they are verbally represented, conscious, and measurable by self-report. Personal goals are subjectively meaningful representations of anticipated end-states delineating what a person wants to achieve, maintain, or avoid in his or her current life situation. Individuals actively derive personal goals from their self-concepts and then plan and engage in activities directed toward goal attainment. The process of goal setting and planning focuses on intention and acquisition of knowledge, and helps to organize resources. The implementation of goals depends on how much a person is committed to a given goal, particularly when the going gets tough. Research shows that people who are not strongly committed to a goal may actually miss opportunities to enact the goal and, when faced with challenges and setbacks on the way toward the goal, may abandon it altogether. In contrast, individuals who feel firmly committed to a goal are better at utilizing opportunities to realize it (a case of chance meeting the prepared mind) and, when they encounter difficulties, will step up their efforts to attain the goal or seek alternative ways to realize it. Successful pursuit and implementation of personal goals in turn provides individuals with a sense of meaning in life, with greater life satisfaction, and with emotional well-being, although the latter effect depends on the fit between a goal and the person's implicit motives (see next section).

Only rarely are goals represented mentally in a purely abstract, verbal format. Most goals entail imagining a 'possible self' realizing the goal. A crucial element of any goal is the mental image of approaching and attaining it. Goals are particularly effective regulators of behavior when the person can conjure up representations of the self achieving them (e.g., imagine your 'self' graduating, buying a car, trying hard to get a job, etc.). In other words, a goal will have a stronger impact on behavior to the extent that an individual can personalize it by building a bridge of self-representations between one's current state and one's desired or hoped-for state.

Central, overarching human goals are often referred to as values. Although there does not exist a common definition for the term, most scholars agree upon the following five aspects regarding values: a value is a subjective belief that pertains to desirable end states (goals) or behaviors, that transcends specific situations, that guides the selection or evaluation of behavior, people, and events, and that is ordered by importance relative to other values to form a system of value priorities.

Similar to 'possible selves' and goals, values are defined as desirable end states. They serve as guiding principles for the lives of individuals (personal values) and social groups or society as a whole (social values). Implicit in this definition of values are the following: that they serve the interests of some social entity; that they can motivate action, giving it direction and emotional intensity; that they function as standards for judging and justifying action; and that they are acquired through unique learning experiences of individuals

or groups. Other goal-related constructs such as 'personal strivings' and 'life tasks' may be seen as expressions of values in specific life domains.

The content of a distinct value is heavily determined by the motivational goal this value expresses (e.g., the value 'helpfulness' represents the goal to preserve and enhance the welfare of others). Values represent, in the form of conscious goals, responses to three universal requirements with which all individuals and societies in all cultures must cope: needs of individuals as biological organisms, requisites of coordinated social interaction, and requirements for the smooth functioning and survival of groups. From these three universal requirements, a number of motivationally distinct types of values can be derived: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security. For example, the value 'conformity' stems from the desire for smooth interaction and group survival. This value expresses the goal to restrain impulses and inhibit actions that might hurt others.

Taken together, the self-concept, personal goals, and enduring values provide humans with conscious, explicit routes for regulating their goal-directed behavior in harmony with the demands and affordances of the sociocultural context they live in and with ways to experience their pursuit of incentives as meaningful and rewarding.

Interactions Between Implicit and Explicit Levels of Motivation

The simultaneous existence of an implicit and an explicit level of motivation, represented by individuals' implicit motives on the one hand and their explicit views of themselves, their values and their goals on the other, raises the question of how these two levels interact with each other to shape thought, feeling, and behavior. Hundreds of studies conducted over several decades have consistently shown that measures of implicit and explicit motivation within a given domain have little statistical overlap with each other. This means that, for instance, a person with a strong implicit achievement motive can have explicit goals and values that do not emphasize achievement and, vice versa, that a person with low implicit achievement motivation can strongly endorse explicit achievement values and be firmly committed to a host of achievement goals. In both cases, implicit and explicit levels of motivation are incongruent with each other, and such motivational incongruence can give rise to problems. Motivationally incongruent people experience less satisfaction with life and less emotional well-being. They are also more prone to develop symptoms of psychosomatic illness. In contrast, people who endorse values or pursue goals that are congruent with their implicit motives (e.g., a person high in implicit achievement motivation who pursues many achievement goals in her daily life) report overall better life satisfaction, emotional well-being, and fewer psychosomatic symptoms.

Because motivational congruence and incongruence can have profound effects on well-being, researchers have started to look for factors that can help people achieve higher congruence between their implicit motives and their explicit values and goals. Dispositional factors that are associated with

high motivational congruence include a strong sense of self-determination, being tuned to one's bodily sensations, the ability to quickly overcome negative affective states, and being able to verbalize one's perceptions quickly. But people can also increase their motivational congruence strategically by vividly imagining a potential goal before committing to it, because imagination helps translate the verbal content of the goal into the nonverbal format in which implicit motives process information.

Learning and Performance Goals

Research on achievement motivation in classroom settings and educational contexts has focused on the difference between performance goals and mastery goals: while performance goals describe the desire to appear competent compared to others, mastery goals emphasize the acquirement of competence through successful mastery of tasks. Carol Dweck and others have provided extensive evidence that performance goals can be hurtful for all but the most accomplished learners, because having to prove one's ability to others makes one vulnerable to the negative social consequences of failure, and fear of failure in turn undermines one's performance. Mastery goals, in contrast, promote learning and motivation, because one's current performance is not compared to others' performance, but only to one's own performance, and success and failure are only diagnostic of whether one has succeeded in improving one's skill level, not one's standing in a social hierarchy.

Andrew Elliot has argued that learning and performance goals can be further differentiated by considering a person's motivational orientations, that is, whether someone is primarily concerned with *approaching* a desirable outcome or whether someone is driven by the objective of *avoiding* aversive outcomes. The interplay between learning and performance goals on the one hand and approach and avoidance on the other has led Elliot to first propose a trichotomous achievement goal framework in which the performance goal construct was divided into performance-approach and performance-avoidance goals. The former describes the striving toward the goal to perform better than others, that is, to pursue a normative approach goal, and is associated not only with more persistent, absorbed, and efficient goal striving, but also with greater test anxiety and unwillingness to cooperate with others. Performance-avoidance goals are about not wanting to perform worse than others and are associated almost exclusively with negative outcomes such as distracted and disorganized learning, anxiety, and impaired performance.

In a later version of the theory, Elliot also divided mastery goals into approach and avoidance goals, with mastery-approach goals reflecting the desire to master a task and mastery-avoidance goals representing the desire to avoid making a mistake or performing worse than previously. Mastery-avoidance goals are grounded in fear of failure and low self-determination, that is, a low desire for autonomy and choice. An analysis of parenting styles showed that parents of mastery-avoidant children tended to give a lot of negative feedback concerning the child as a person (e.g., 'you are not a good person') as opposed to a specific behavior (e.g., 'you did

not put a lot of effort into completing this task') and to create a family climate characterized by worrying. Consequently, the pursuit of mastery-avoidance goals is predictive of disorganized studying and worry-proneness among children. Interestingly, parental socialization practices appear to be unrelated to the development of mastery-approach goals, perhaps because an active approach toward mastering one's environment is inherent in human nature and therefore does not need to be reinforced externally. Performance-approach goals were linked to parents' conditional approval of children (e.g., 'you have to do well in school to make me happy') and positive feedback by fathers that focused on their children's overall personality rather than just on the positive outcome of the task. This type of person-focused feedback by parents also facilitates children's adoption of harmful performance-avoidance goals.

To summarize, research in classroom and learning contexts shows that people benefit from mastery goals, particularly when they are approach-oriented, because they allow to focus on gradual improvement of one's skills, and suffer when they pursue performance goals, particularly when they are avoidance-oriented, because they induce harmful social comparisons.

Self-Determination Theory and Basic Needs

When people believe that a particular behavior will reliably lead to the desired consequences and they also feel capable of performing that behavior, they will experience intentionality and a sense of personal causation. To account for the diverse effects goals have on affect, cognition, and behavior, Ed Deci and Richard Ryan argued that intentional behavior is regulated along a continuum from autonomous (self-determined) to controlled by intrapersonal or interpersonal forces. They also distinguish between intention and choice: while choice refers to autonomously initiated intentional behaviors that reflect intrinsic motivation, intentional behavior can also be at the other end of the spectrum and be executed for reasons extrinsic to the person, thus reflecting extrinsic motivation (e.g., when a soldier executes an order given by a higher ranking officer). The autonomous and controlled ends of the self-determination continuum also differ in the sense of a person's inner endorsement of his or her actions. For example, an anorectic person refusing to eat is not showing autonomous intentional behavior as the intention contains a strong element of compulsion. When controlled intentions motivate behavior, people feel they are 'pawns' to the desired outcomes.

According to self-determination theory, all humans are propelled by three basic needs, namely the needs for competence, autonomy, and relatedness. These needs are seen as essential for psychological growth, self-esteem, integrity, and wellness. Intrinsic motivation is facilitated to the extent that a person's needs for autonomy and competence are supported; their suppression leads to extrinsically motivated forms of behavior. For example, imposing deadlines for the completion of an interesting task is being perceived as controlling and will therefore decrease intrinsic motivation, as is receiving certain types of rewards. Also, self-awareness, that is, seeing oneself through the eyes of others, or ego involvement (e.g., when the task is evaluative of a person's abilities) will lead to controlled regulation of behavior, which is associated with low persistence and

task enjoyment. In contrast, having the opportunity to choose between different tasks or being supported in one's autonomy by teachers and parents will lead to an increase in intrinsic motivation and thus to high persistence, task enjoyment, and qualitatively superior outcomes.

Although extrinsic reasons for action often undermine intrinsic motivation, extrinsically motivated behaviors can become autonomous via internalization. People can introject external reasons; that is, they can 'swallow' the reasons without really digesting them. But they can also accept them and identify with them if they think they are reasonable and valuable, or, in the best case, they can actively integrate them with their own sense of self. Thus, extrinsic reasons for behavior are not always at odds with autonomous regulation, provided that a person can internalize in some way the external reasons for behavior. Research shows that internalization of external values and regulations is effective in social contexts that support autonomy.

Since its formulation, self-determination theory has been successfully applied to various contexts, including sports, politics, and psychotherapy. However, it has also drawn some criticism because it fails to account for the fact that extrinsic rewards can also boost creativity, motivation, and performance in the laboratory and many domains of life.

Conclusion

Motivation is a unifying term for a diverse group of phenomena and constructs that are all related to goal-directed behavioral regulation. A fundamental rift exists between implicit motivation that automatically directs behavior toward incentives and away from disincentives without requiring conscious awareness and explicit motivation, a uniquely human form of self-regulation that is rooted in a person's ability to verbalize her or his sense of self, to adhere to culturally transmitted values, and to set and pursue personally meaningful goals. Another fundamental distinction is the direction of motivation: whether it fuels approach to rewards or avoidance of aversive stimuli. This distinction is valid both at the levels of implicit and explicit motivation and is manifested, for instance, in the types of mastery and performance goals people pursue in academic contexts. Finally, behavior can be motivated extrinsically, such as when pressure is exerted on a person to perform a certain task, or intrinsically, such as when a person feels strongly motivated to perform a task. A thorough understanding of motivational phenomena thus requires a multidimensional approach to their assessment and conceptualization.

See also: Hope and Optimism; Positive Psychology; Self-Esteem; Self-Fulfilling Prophecy; Work Efficiency and Motivation.

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