

strategies of goal setting, and goal implementation that are easy to perform.

See also: Academic Achievement Motivation, Development of; Action Theory: Psychological; Activity Theory: Psychological; Attitudes and Behavior; Automaticity of Action, Psychology of; Control Behavior: Psychological Perspectives; Group Decision Making, Social Psychology of; Intrinsic Motivation, Psychology of; Self-regulation in Adulthood

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Motivation: History of the Concept

Evolutionary theory, the study of learning, and the psychoanalytic study of mental illness have been committed to see motivation as a primary cause of behavior, and this is also true of behavioral biology and physiological psychology, as they prefer to think in terms of homeostasis (Cofer and Appley 1964). When hunger occurs, for instance, behavior is instigated (e.g., finding and eating food) that is instrumental to rectifying the imbalance caused by tissue needs and deficits. The named theoretical perspectives have barricaded the simple insight that behavior can occur under externally applied forces as well (e.g., a shove). Even more importantly, the physical structure of the organism, its sensory and perceptual capacities, its cognitive and motor abilities, and so forth, qualify as causal factors. Even habits, once formed, can be seen as such.

Research on motivation has recognized early on that motivation can only be one of the many causes of behavior, and this extends to the causation of affect and cognition as well. Accordingly, the leading question became: What are the aspects of cognition, affect, and behavior that benefit most from a motivational analysis? Traditionally, the following issues have been addressed: First, there is the question of the facilitation and energization of certain responses. This issue has been analyzed by the classic proponents of learning theory (Hull 1943, Spence 1956) who suggested that motivational processes as such (assumed to be rooted in general drive or arousal states) do not necessarily control or guide specific forms of behavior but may at times invigorate innate or learned associative tendencies. Second, thoughts, feelings, and actions are often characterized as guided, directed, goal-oriented, persistent, or purposive. Such qualities relate to making choices, but also to short-term or long-term efforts in implementing the choices made.

Researchers like Atkinson (1957) and McClelland (1955) focused on this issue and suggested a motivational analysis.

To demonstrate how the concept of motivation has changed in history, this article describes how two central issues (i.e., basic needs and action control) have been addressed differently by the traditional and the modern psychology of motivation.

1. Basic Human Needs

Whereas learning theorists, following the lead of Hull, conceived of need as a general, content-free drive, personality psychologists were eager to put content into the concept of need. Sigmund Freud was rather parsimonious by only suggesting two basic needs, namely the life and the death instinct. McDougall (1932) listed 18 basic needs which he referred to as instincts (e.g., curiosity, self-assertion, submission). Murray's (1938) *Explorations in Personality* contains a catalog of 20 psychogenic needs (e.g., need for nurturance, need for succorance) and Maslow's (1954) *Motivation and Personality* proposed a hierarchy of needs whereby the lower need categories related to deficiency needs (e.g., hunger, safety) and the higher ones to growth needs (e.g., need to achieve, need to realize one's potential).

The named approaches excelled in generating sophisticated definitions and descriptions, but did not provide reliable instruments for need assessment. They also failed to answer the question of which of the many needs are activated in a given situation and how such activation processes run off. Moreover, they did not explore the origins of individual differences in the strength of these needs. In later years, Atkinson (1957) and McClelland (1985) addressed these problems with respect to the need for achievement and the power motive.

Still, the question remains: Which of the many conceivable human needs is the most basic? Baumeister and Leary (1995) have recently raised this issue by applying criteria such as universality, non-derivativeness, satiation, and substitution. According to their analysis, the need to belong in the sense of forming and maintaining strong, stable interpersonal relationships is suggested to be a most basic need. However, this need seems to be in tension with another basic need, the desire to distinguish oneself and be different from others, as people are found to compete even with their intimates when it comes to performing well on dimensions that are of high personal relevance (Tesser 1988). Indeed, the need for high self-esteem has been suggested as the ultimate human motive, because it buffers fear of death which is a consequence of humans being conscious of their mortality. Such awareness engenders abject terror that needs to be managed as it could paralyze the ability to act (Pyszczynski et al. 1997).

Recent research on individual differences in terms of motivational orientations has replaced the need (motive) construct with constructs that describe a general goal orientation, such as personal projects, personal strivings, life tasks, or identity goals. Such personal strivings (Emmons 1996) are more limited in scope (e.g., be a honest person) and can be characterized in terms of expectancies of success, complexity, high vs. low level of abstraction, avoidance vs. approach orientation, degree of conflict between each other, and integration vs. fragmentation. The named parameters of personal strivings have been observed to relate to measures of psychological and physical well-being.

2. Action Control

Early theories portrayed the human as a machine-like reactive organism compelled to act by internal and/or external forces beyond our control (e.g., instincts, needs, drives, incentives, reinforcers, etc.). Prototypical theories are the psychoanalytic theory of Freud, Hull's learning theory (and the reformulations by his students), or Lewin's field theoretical approach. These theories imply that if one just pushed the right button, motivation would result. There is no room for conscious reflections and attempts towards self-regulation. Instead, motivational forces transmit their energy outside of awareness, establishing a state of balance or equilibrium (referred to as arousal reduction, self-preservation, or need satisfaction).

More modern theories construe human beings as all-just and all-knowing final judges of their actions. Expectancy-value theories (e.g., Atkinson 1957) assume that people choose goals in a rational way, based on the comprehensive knowledge of the probability of goal attainment and the goal's expected value. It is proposed that the subjective probability of success and the incentive value of having performed a task (i.e., pride or shame) conjointly affect task choice, both variables being influenced by the perceived difficulty of the task. Elaborations of this model (Heckhausen 1991) added further expectation-related concepts (e.g., action-outcome expectancies), and differentiated various aspects of the incentive value (e.g., extrinsic side effects). Attribution theories (e.g., Weiner 1992) propose that the motivational determinants of a person's behavior are causal explanations of prior action outcomes. People are seen as amateur scientists who systematically explore the causes of their behavior. The type of causes discovered are expected to affect a person's readiness to engage in these or related behaviors by influencing affect and expectations.

More recently, the motivational importance of control beliefs has been analyzed. According to Bandura's (1997) self-efficacy theory, self-efficacious individuals hold the firm belief that they possess the potential to execute (i.e., control) the kinds of behaviors that a given task demands. People acquire

such beliefs by reflecting on their own relevant past behaviors, observing the behavior of similar others, being evaluated by significant others (e.g., teachers), and observing their own physiological reactions when challenged by a given task. High self-efficacy beliefs are associated with choosing aspiring goals, exerting strong effort to attain these goals, and persisting in the face of obstacles and hindrances.

Present theories of motivation go beyond conceptualizing humans as all-just and all-knowing. Human beings are construed as flexible strategists. The focus is on the different tasks a person has to perform when transforming wishes into actions (Gollwitzer 1990). When choosing goals, people try to live up to the ideal of being an all-knowing and all-just person by processing all the available information in an impartial manner. However, when the implementation of an already set goal is at issue, people are determined, become partial, and the desirability and feasibility are seen in the most positive light.

Recent research on goals focuses on the determinants and processes of goal setting as well as goal implementation. With respect to goal setting, for instance, it has been discovered that people who construe their self as an ideal which they intrinsically desire to attain, set themselves promotion goals focusing on establishing and keeping positive outcomes, whereas people who construe their self as an ought which they feel compelled to reach, set themselves prevention goals focusing on avoiding and getting rid of negative outcomes (Higgins 1997). Moreover, people can regulate the process of goal setting in a more or less productive manner, by the way they think about the future outcomes they want to attain. When the desired future is mentally contrasted with negative aspects of impeding reality (e.g., effectively mastering a project is mentally contrasted with obstacles standing in its way), relevant expectations of successfully realizing one's fantasies become activated and used. Accordingly, people form goal commitments in a rational manner (i.e., form strong goal commitments when expectations of success are high, and leave the field when probabilities of success are low). When people only dream about positive future outcomes or solely ruminate about the negative reality, however, respective goal commitments are moderate and expectancy-independent (Oettingen 2000).

Regarding the determinants of successful goal implementation, how goals are framed makes an important difference. For instance, when achievement goals are framed as learning goals (i.e., goals geared at trying to learn more about how one can successfully carry out the task at hand) as compared to performance goals (i.e., goals geared at trying to find out how capable one is), failure experiences are coped with more effectively and thus people are more likely to reach their goals (Dweck 1999). It also matters how goal pursuit is regulated by the individual. For instance, people can protect an ongoing goal pursuit

from distractions by making plans on how to deal with them, or they can plan the details (when, how, and where) of the initiation and execution of the goal-directed behavior ahead of time, so that any potentially disturbing self-states (e.g., being tired) can no longer interfere (Gollwitzer 1999). People can also step up their efforts when hindrances are encountered and turn to substitute goals if increased effort still fails to guarantee goal attainment. Other effective action control strategies relate to the regulation of one's emotions, the perceived attractiveness of the goal, and to creating an environment that offers good opportunities for making progress toward goal attainment (Kuhl and Beckmann 1994).

This recent revival of research on the self-regulation of goal pursuit (Mischel et al. 1996) is reminiscent not only of the mentalists' analysis of willing (James 1890), but also of German will psychology (Ach 1935, Lewin 1926) before the heyday of behaviorism. William James pointed out that any self-regulation either has to do with strengthening a weak tendency to perform a desired behavior (i.e., issues of the obstructed will) or with weakening a strong tendency to perform an unwanted behavior (i.e., issues of the explosive will). James' analysis of willing is based 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.

Kurt Lewin's experimental work on the willful control of behavior also offers ideas on how such control may come about, and the same is true for the research of Narziss Ach. Lewin suggested that goals assign a valence to objects and events in people's social and nonsocial surroundings. In Lewin's example of a person who intends to mail a letter, a mail box entices the person to deposit the letter much as food entices a hungry person to eat. As 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), many different goal-directed behaviors qualify for satisfying the quasi-need associated with a set goal. Lewin's tension state metaphor thus effectively accounts for the flexibility of goal striving.

Ach's approach to the analysis of willing was different. He assumed that the linking in one's mind of an anticipated situation to a concrete intended behavior creates what he called a 'determination' which in turn automatically triggers the intended action when the specified situation is encountered. The strength of the determination was not assumed to relate to the importance of the person's intention or goal, but rather to the degree of concreteness when specifying the situation and to the intensity of the act of willing. For Ach, concepts like need relate to the importance of goals and thus were assumed to be critical for choosing between goals, whereas the implementation of set goals was an issue of willing. The suggested distinction between motivational issues

of goal choice and volitional issues of goal implementation is reflected in recent research on goals that distinguishes between goal setting and goal implementation.

See also: Action Planning, Psychology of; Attributional Processes: Psychological; Behaviorism; Behaviorism, History of; Cognitive Psychology: History; Free Will and Action; Mental Representations, Psychology of; Motivation and Actions, Psychology of; Motivation, Learning, and Instruction; Motivation, Neural Basis of; Personality Structure; Personality Theories; Self-regulation in Adulthood; Self-regulation in Childhood

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Motivation, Learning, and Instruction

In popular language, motivation is equated with goal-directed behavior and is, as such, easily understood. However, educational researchers who wanted to include this seemingly clear construct into their models of learning and instruction soon discovered that it is a blanket term which refers to a variety of interrelated self-perceptions and affects, including outcome expectations, self-efficacy, goal orientation, goal setting, perception of control, interest, self-concept of ability, goal intentions, goal striving, persistence, and effort expenditure. Each of these facets of the motivation construct has been intensively researched within its own conceptual niche, a situation which has resulted in a kaleidoscope of overlapping constructs and complementary measurement instruments. Quite clearly, the presence of too many motivation-related constructs has hindered the integration of the concept within models of learning and instruction. This article begins with a brief historical tour of the motivation theories that are relevant to the study of learning and instruction. Next, some recent developments in motivation research will be discussed. These developments have been instrumental in giving motivation the prominent place in pedagogical practice and instruction models that is long overdue.

1. A Brief History of Motivation

An examination of the history of motivation reveals that the significance of the motivation construct was acknowledged in the 1940s and 1950s, when interpretation problems plagued the study of goal achievement. Researchers argued that individuals have access to a