

Motivation

For other uses, see [Motivation \(disambiguation\)](#).

Motivation is a **theoretical construct** used to explain **behavior**. It represents the reasons for people's actions, desires, and needs. Motivation can also be defined as one's direction to behavior, or what causes a person to want to repeat a behavior and vice versa.^[1] A motive is what prompts the person to act in a certain way, or at least develop an inclination for specific behavior.^[2] For example, when someone eats food to satisfy their hunger, or when a student does his/her work in school because he/she wants a good grade. Both show a similar connection between what we do and why we do it. According to Maehr and Meyer, "Motivation is a word that is part of the popular culture as few other psychological concepts are".^[3] Wikipedia readers will have a motive (or motives) for reading an article, even if such motives are complex and difficult to pinpoint. At the other end of the range of complexity, **hunger** is frequently the motive for seeking out and consuming food.

1 Types of theories and models

Motivation theories can be classified on a number of bases.

- **Natural vs. Rational** based on whether the underlying theory of human **Cognition** is based on natural forces (drives, needs, desires) or some kind of rationality (instrumentality, meaningfulness, self-identity).
- **Content vs. Process** based on whether the focus is on the content ("what") motivates vs process ("how") motivation takes place.

2 Psychological theories and models

Motivation can be conceived of as a cycle in which thoughts influence behaviors, behaviors drive performance, performance impacts thoughts, and the cycle begins again. Each stage of the cycle is composed of many dimensions including attitudes, beliefs, intentions, effort, and withdrawal which can all affect the motivation that an individual experiences.

2.1 Rational motivations

The idea that human beings are rational and human behavior is guided by reason is an old one. However, recent research (on **Satisficing** for example) has significantly undermined the idea of **homo economicus** or of **perfect rationality** in favour of a more **bounded rationality**. The field of **behavioural economics** is particularly concerned with the limits of rationality in economic agents.^[4]

2.2 Incentive theories: intrinsic and extrinsic motivation

Motivation can be divided into two different theories known as **Intrinsic** (internal) motivation and **Extrinsic** (external) motivation.

2.2.1 Intrinsic motivation

Intrinsic motivation has been studied since the early 1970s. Intrinsic motivation is the self-desire to seek out new things and new challenges, to analyze one's capacity, to observe and to gain knowledge.^[5] It is driven by an interest or enjoyment in the task itself, and exists within the individual rather than relying on external pressures or a desire for reward. The phenomenon of intrinsic motivation was first acknowledged within experimental studies of animal behavior. In these studies, it was evident that the organisms would engage in playful and curiosity driven behaviors in the absence of reward. Intrinsic motivation is a natural motivational tendency and is a critical element in cognitive, social, and physical development.^[6] Students who are intrinsically motivated are more likely to engage in the task willingly as well as work to improve their skills, which will increase their capabilities.^[7] Students are likely to be intrinsically motivated if they:

- attribute their educational results to factors under their own control, also known as autonomy or locus of control
- believe they have the skills to be effective agents in reaching their desired goals, also known as self-efficacy beliefs
- are interested in mastering a topic, not just in achieving good grades

An example of intrinsic motivation is when an employee becomes an IT professional because he or she wants to

learn about how computer users interact with computer networks. The employee has the intrinsic motivation to gain more knowledge^[8]

Advantages: Intrinsic motivation can be long-lasting and self-sustaining. Efforts to build this kind of motivation are also typically efforts at promoting student learning. Such efforts often focus on the subject rather than rewards or punishments.

Disadvantages: Efforts at fostering intrinsic motivation can be slow to affect behavior and can require special and lengthy preparation. Students are individuals, so a variety of approaches may be needed to motivate different students. It is often helpful to know what interests one's students in order to connect these interests with the subject matter. This requires getting to know one's students. Also, it helps if the instructor is interested in the subject to begin with!^[9]

2.2.2 Extrinsic motivation

Extrinsic motivation refers to the performance of an activity in order to attain a desired outcome and it is the opposite of intrinsic motivation.^[5] Extrinsic motivation comes from influences outside of the individual. In extrinsic motivation, the harder question to answer is where do people get the motivation to carry out and continue to push with persistence. Usually extrinsic motivation is used to attain outcomes that a person wouldn't get from intrinsic motivation.^[10] Common extrinsic motivations are rewards (for example money or grades) for showing the desired behavior, and the threat of punishment following misbehavior. Competition is an extrinsic motivator because it encourages the performer to win and to beat others, not simply to enjoy the intrinsic rewards of the activity. A cheering crowd and the desire to win a trophy are also extrinsic incentives.^[11]

Social psychological research has indicated that extrinsic rewards can lead to *overjustification* and a subsequent reduction in intrinsic motivation. In one study demonstrating this effect, children who expected to be (and were) rewarded with a ribbon and a gold star for drawing pictures spent less time playing with the drawing materials in subsequent observations than children who were assigned to an unexpected reward condition.^[12] However, another study showed that third graders who were rewarded with a book showed more reading behavior in the future, implying that some rewards do not undermine intrinsic motivation.^[13] While the provision of extrinsic rewards might reduce the desirability of an activity, the use of extrinsic constraints, such as the threat of punishment, against performing an activity has actually been found to increase one's intrinsic interest in that activity. In one study, when children were given mild threats against playing with an attractive toy, it was found that the threat actually served to increase the child's interest in the toy, which was previously undesirable to the child in the ab-

sence of threat.^[14]

2.2.3 Operant conditioning

Main article: [Operant conditioning](#)

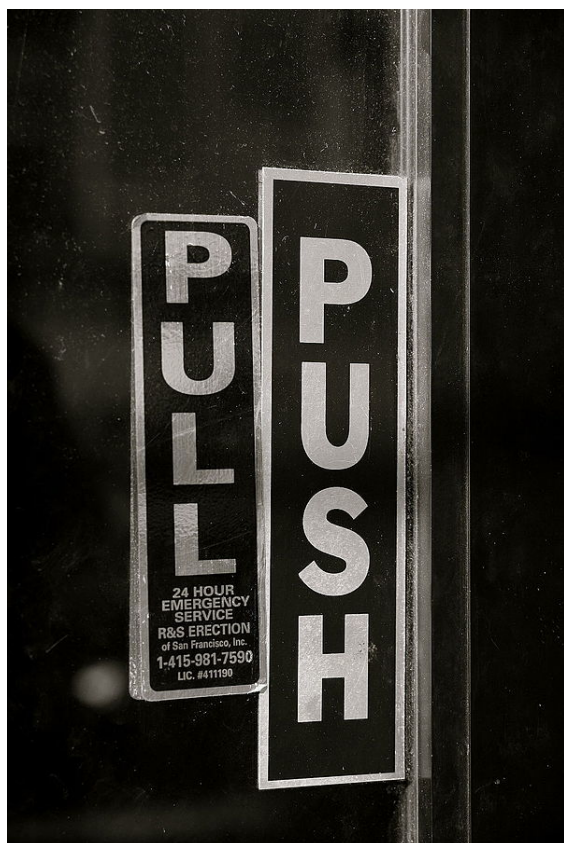
B. F. Skinner believed in the idea that the best way to fully understand an individual's behavior is to investigate the causes of an action and its consequences. Operant conditioning, the theory which Skinner is well known for, is a method of learning that occurs through rewards and punishments for behavior. Skinner's operant conditioning was based on the work of Edward Thorndike's "Law of Effect",^[15] which is the theory of learning in animals using a puzzle box to propose the theory. In 1948, Skinner conducted an operant conditioning experiment by using animals which he placed in a "Skinner Box". Changes in behavior are the result of an individual's reaction to his/her surroundings in an environment. "A response produces a consequence such as defining a word, hitting a ball, or solving a math problem."^[16] When a particular Banana Stimulus Response (B-S-R) pattern is rewarded over time, an individual will be conditioned to respond.^[17]

2.3 Push and pull

Push motivations are those where people push themselves towards their goals or to achieve something, such as the desire for escape, rest and relaxation, prestige, health and fitness, adventure, and social interaction.^[18]

However, with push motivation it's also easy to get discouraged when there are obstacles present in the path of achievement. Push motivation acts as a willpower and people's willpower is only as strong as the desire behind the willpower.^[19] Additionally, a study has been conducted on social networking and its push and pull effects. One thing that is mentioned is "Regret and dissatisfaction correspond to push factors because regret and dissatisfaction are the negative factors that compel users to leave their current service provider."^[20] So from reading this, we now know that Push motivations can also be a negative force. In this case, that negative force is regret and dissatisfaction.

Pull motivation is the opposite of push. It is a type of motivation that is much stronger. "Some of the factors are those that emerge as a result of the attractiveness of a destination as it is perceived by those with the propensity to travel. They include both tangible resources, such as beaches, recreation facilities, and cultural attractions, and traveler's perceptions and expectation, such as novelty, benefit expectation, and marketing image."^[18] Pull motivation can be seen as the desire to achieve a goal so badly that it seems that the goal is pulling us toward it. That is why pull motivation is stronger than push motivation. It is easier to be drawn to something rather than



to push yourself for something you desire. It can also be an alternative force when compared to negative force. From the same study as previously mentioned, “Regret and dissatisfaction with an existing SNS service provider may trigger a heightened interest toward switching service providers, but such a motive will likely to translate into reality in the presence of good alternative. Therefore, alternative attractiveness can moderate the effects of regret and dissatisfaction with switching intention”^[20] And so, pull motivation can be an attracting desire when negative influences come into the picture.

2.4 Self-control

Main article: [Self-control](#)

The self-control aspect of motivation is increasingly considered to be a subset of emotional intelligence;^[21] it is suggested that although a person may be classed as highly intelligent (as measured by many traditional intelligence tests), they may remain unmotivated to pursue intellectual endeavours. Vroom’s “expectancy theory” provides an account of when people may decide to exert self-control in pursuit of a particular goal.

2.5 Drives

Main article: [Drive theory](#)

A drive or desire can be described as a *deficiency or need that activates behavior that is aimed at a goal or an incentive*.^[22] These drives are thought to originate within the individual and may not require external stimuli to encourage the behavior. Basic drives could be sparked by deficiencies such as hunger, which motivates a person to seek food whereas more subtle drives might be the desire for praise and approval, which motivates a person to behave in a manner pleasing to others. Another basic drive is the **sexual drive** which like food motivates us because it is essential to our survival.^[23] The desire for sex is wired deep into the brain of all human beings as glands secrete hormones that travel through the blood to the brain and stimulates the onset of sexual desire.^[23] The hormone involved in the initial onset of sexual desire is called **Dehydroepiandrosterone (DHEA)**.^[23] The hormonal basis of both men and women’s sex drives is testosterone.^[23] Men naturally have more testosterone than women do and so are more likely than woman to think about sex,^[23] There are countless amount of drives society obtains, it is primarily the reason why people have a willingness to act in a particular way; that being generally a desire or interest in something.

2.6 Incentive theory

Incentive theory is exactly what it sounds like it is, it is an incentive or motive to do something. The most common incentive would be a **reward**. Rewards can be tangible or intangible, and is presented generally after the occurrence of the action or behavior that one is trying to correct or cause to happen again. This is done by associating positive meaning to the behavior and or action. Studies show that if the person receives the reward immediately, the effect is greater, and decreases as delay lengthens.^[24] Repetitive action-reward combination can cause the action to become a **habit**.^[25] Motivation comes from two sources: oneself, and other people. (Refer to Intrinsic and Extrinsic motivation for more information)

“Reinforcers and **reinforcement** principles of behavior differ from the hypothetical construct of reward.”^[25] A reinforcer is anything that follows an action, with the intentions that the action will now occur more frequently. **Positive reinforcement** is demonstrated by an increase in the future frequency or magnitude, this is due to the fact that in the past such action was followed by a reinforcing stimulus. Positive reinforcement involves a stimulus change consisting of the presentation or magnification of a positive stimulus following a response. **Negative reinforcement** involves stimulus change consisting of the removal of a stimulus following a response. From this perspective, the concept of distinguishing between intrinsic and extrinsic forces is irrelevant.

Another principle of reinforcement is **intermittent reinforcement**. This is the on-and-off use of reinforcement. It is very effective in locking in behaviors that precede it by preventing the reward from losing its value. Intermittent reinforcement can also make it more difficult to modify a behavior later. “Dr. Skinner actually mapped out schedules of reinforcement in thousands of studies showing how the strength of reinforcement changed as a function of how often the reinforcer occurred.”^[26]

Applying proper motivational techniques can be much harder than it seems, especially because its different for every person. Take note that when creating a reward system, it can be easy to reward A, while hoping for B, and in the process, reap harmful effects that can jeopardize your goals.^[25]

Incentive theory in psychology treats motivation and behavior of the individual as they are influenced by beliefs, such as engaging in activities that are expected to be profitable. Incentive theory is promoted by behavioral psychologists, such as B.F. Skinner. Incentive theory is especially supported by Skinner in his philosophy of **Radical behaviorism**, meaning that a person’s actions always has social ramifications: and if actions are positively received people are more likely to act in this manner, or if negatively received people are less likely to act in this manner.

Incentive theory distinguishes itself from other motivation theories, such as **drive theory**, in the direction of the motivation. In incentive theory, **stimuli** “attract”, a person towards them, and push them towards the stimulus. In terms of behaviorism, *incentive theory* involves **positive reinforcement**: the reinforcing stimulus has been conditioned to make the person happier. As opposed to in *drive theory*, which involves **negative reinforcement**: a stimulus has been associated with the removal of the **punishment**—the lack of **homeostasis** in the body. For example, a person has come to know that if they eat when hungry, it will eliminate that negative feeling of hunger, or if they drink when thirsty, it will eliminate that negative feeling of thirst.^[25]

2.7 Drive-reduction theory

Drive theory grows out of the concept that people have certain biological drives, such as hunger and thirst. As time passes the strength of the drive increases if it is not satisfied (in this case by eating). Upon satisfying a drive the drive’s strength is reduced. Created by **Clark Hull** and further developed by **Kenneth Spence**, the theory became well known in the 1940s and 1950s. Many of the motivational theories that arose during the 1950s and 1960s were either based on Hull’s original theory or were focused on providing alternatives to the drive-reduction theory, including **Abraham Maslow’s** hierarchy of needs, which emerged as an alternative to Hull’s approach.^[27]

Drive theory has some intuitive or folk validity. For in-



Clark Hull was the behaviorist who developed the drive-reduction theory of motivation.

stance when preparing food, the drive model appears to be compatible with sensations of rising hunger as the food is prepared, and, after the food has been consumed, a decrease in subjective hunger.^[28] There are several problems, however, that leave the validity of drive reduction open for debate.

2.8 Cognitive dissonance theory

Main article: [Cognitive dissonance](#)

Suggested by **Leon Festinger**, cognitive dissonance occurs when an individual experiences some degree of discomfort resulting from an inconsistency between two cognitions: their views on the world around them, and their own personal feelings and actions.^[25] For example, a consumer may seek to reassure themselves regarding a purchase, feeling that another decision may have been preferable. Their feeling that another purchase would have been preferable is inconsistent with their action of purchasing the item. The difference between their feelings and beliefs causes dissonance, so they seek to reassure themselves.

While not a theory of motivation, per se, the theory of cognitive dissonance proposes that people have a motivational drive to reduce dissonance. The cognitive miser perspective makes people want to justify things in a simple way in order to reduce the effort they put into cognition. They do this by changing their attitudes, beliefs, or actions, rather than facing the inconsistencies, because

dissonance is a mental strain. Dissonance is also reduced by justifying, blaming, and denying. It is one of the most influential and extensively studied theories in social psychology.

2.9 Content theories

The content theory was one of the earliest theories of motivation. Content theories can also be referred to needs theories, because the theory focuses on the importance of what motivates us (needs). In other words, they try to identify what our “needs” are and how they relate to motivation to fulfilled those needs. Another definition could be defined by Pritchard and Ashwood, is the process used to allocate energy to maximize the satisfaction of needs.^[29]

2.9.1 Maslow’s hierarchy of needs

- Maslow’s Pyramid

Content theory of human motivation includes both Abraham Maslow's hierarchy of needs and Herzberg's two-factor theory. Maslow’s theory is one of the most widely discussed theories of motivation. Abraham Maslow believed that man is inherently good and argued that individuals possess a constantly growing inner drive that has great potential. The needs hierarchy system, devised by Maslow(1954), which is a commonly used scheme for classifying human motives.^[30]

[31]

The American motivation psychologist Abraham H. Maslow developed the hierarchy of needs consisting of five hierarchic classes. According to Maslow, people are motivated by unsatisfied needs. The needs, listed from basic (lowest-earliest) to most complex (highest-latest) are as follows:

- Physiology (hunger, thirst, sleep, etc.)
- Safety/Security/Shelter/Health
- Social/Love/Friendship
- Self-esteem/Recognition/Achievement
- Self actualization/achievement of full potential/can never be fully accomplished

[32] The basic requirements build upon the first step in the pyramid: physiology. If there are deficits on this level, all behavior will be oriented to satisfy this deficit. Essentially, if you have not slept or eaten adequately, you won't be interested in your self-esteem desires. Subsequently we have the second level, which awakens a need for security. After securing those two levels, the motives shift to

the social sphere, the third level. Psychological requirements comprise the fourth level, while the top of the hierarchy consists of self-realization and self-actualization.

Marlow’s hierarchy of needs theory can be summarized as follows:

- Human beings have wants and desires which influence their behavior. Only unsatisfied needs influence behavior, satisfied needs do not.
- Needs are arranged in order of importance to human life, from the basic to the complex.
- The person advances to the next level of needs only after the lower level need is at least minimally satisfied.
- The further the progress up the hierarchy, the more individuality, humanness and psychological health a person will show.

2.9.2 Herzberg’s two-factor theory

Main article: Two-factor theory

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Frederick Herzberg's two-factor theory concludes that certain factors in the workplace result in job satisfaction, but if absent, they don't lead to dissatisfaction but no satisfaction. The factors that motivate people can change over their lifetime, but “respect for me as a person” is one of the top motivating factors at any stage of life.

He distinguished between:

- *Motivators* (e.g. challenging work, recognition, responsibility) which give positive satisfaction, and
- *Hygiene factors* (e.g. status, job security, salary and fringe benefits) that do not motivate if present, but, if absent, result in demotivation.

Herzberg concluded that job satisfaction and dissatisfaction were the products of two separate factors: motivating factors (satisfiers) and hygiene factors (dissatisfiers). Some motivating factors (satisfiers) were: Achievement, recognition, work itself, responsibility, advancement, and growth. Some hygiene factors (dissatisfiers) were: company policy, supervision, working conditions, interpersonal relations, salary, status, job security, and personal life.^[2]

The name hygiene factors is used because, like hygiene, the presence will not improve health, but absence can cause health deterioration.

Herzberg’s theory has found application in such occupational fields as information systems and in studies of user satisfaction such as computer user satisfaction.

2.9.3 Alderfer's ERG theory

Main article: [ERG theory](#)

Alderfer, expanding on Maslow's hierarchy of needs, created the *ERG theory*. This theory posits that there are three groups of core needs — existence, relatedness, and growth, hence the label: ERG theory. The existence group is concerned with providing our basic material existence requirements. They include the items that Maslow considered to be physiological and safety needs. The second group of needs are those of relatedness- the desire we have for maintaining important personal relationships. These social and status desires require interaction with others if they are to be satisfied, and they align with Maslow's social need and the external component of Maslow's esteem classification. Finally, Alderfer isolates growth needs as an intrinsic desire for personal development. Maslow's categories are broken down into many different parts and there are a lot of needs. The ERG categories are more broad and covers more than just certain areas. As a person grows, the existence, relatedness, and growth for all desires continue to grow. All these needs should be fulfilled to greater wholeness as a human being.^[33] These include the intrinsic component from Maslow's esteem category and the characteristics included under self-actualization.

2.9.4 Self-determination theory

Main article: [Self-determination theory](#)

Since the early 1970s Edward L. Deci and Richard M. Ryan have conducted research that eventually led to the proposition of the self-determination theory (SDT). This theory focuses on the degree to which an individual's behaviour is self-motivated and self-determined. SDT identifies three innate needs that, if satisfied, allow optimal function and growth: competence,^{[34][35]} relatedness,^[36] and autonomy.^{[37][38]} These three psychological needs motivate the self to initiate specific behaviour and mental nutrients that are essential for psychological health and well-being. When these needs are satisfied, there are positive consequences, such as well-being and growth, leading people to be motivated, productive and happy. When they are thwarted, people's motivation, productivity and happiness plummet.

There are three essential elements to the theory:^[39]

- Humans are inherently proactive with their potential and mastering their inner forces (such as drive and emotions).
- Humans have an inherent tendency towards growth, development and integrated functioning.

- Optimal development and actions are inherent in humans but they do not happen automatically.

2.10 Temporal motivation theory

Main article: [Temporal motivation theory](#)

The latest approach in developing a broad, integrative theory of motivation is temporal motivation theory.^[40] Introduced in a 2006 *Academy of Management Review* article,^[41] it synthesizes into a single formulation the primary aspects of several other major motivational theories, including Incentive Theory, Drive Theory, Need Theory, Self-Efficacy and Goal Setting. It simplifies the field of motivation and allows findings from one theory to be translated into terms of another. Another journal article that helped to develop the *Temporal Motivation Theory*, "The Nature of Procrastination,"^[42] received American Psychological Association's *George A. Miller* award for outstanding contribution to general science.

$$\text{Motivation} = \frac{\text{Expectancy} \times \text{Value}}{1 + \text{Impulsiveness} \times \text{Delay}}$$

where *Motivation*, the desire for a particular outcome, *Expectancy* or *self-efficacy* is the probability of success, *Value* is the reward associated with the outcome, *Impulsiveness* is the individual's sensitivity to delay and *Delay* is the time to realization.^[43]

2.11 Achievement motivation

Achievement motivation is an integrative perspective based on the premise that performance motivation results from the way broad components of personality are directed towards performance. As a result, it includes a range of dimensions that are relevant to success at work but which are not conventionally regarded as being part of performance motivation. The emphasis on performance seeks to integrate formerly separate approaches as *need for achievement*^[44] with, for example, social motives like dominance. Personality is intimately tied to performance and achievement motivation, including such characteristics as tolerance for risk, fear of failure, and others.^{[45][46][47]}

Achievement motivation can be measured by The Achievement Motivation Inventory, which is based on this theory and assesses three factors (in 17 separated scales) relevant to vocational and professional success. This motivation has repeatedly been linked with adaptive motivational patterns, including working hard, a willingness to pick learning tasks with much difficulty, and contributing success to effort.^[48]

Achievement motivation was studied intensively by David C. McClelland, John W. Atkinson and their colleagues since the early 1950s.^[49] This type of motivation is a drive that is developed from an emotional state. One may feel the drive to achieve by getting striving for success and avoiding failure. In achievement motivation, one would hope that they excel in what they do and not think much about the failures or the negatives.^[50] Their research showed that business managers who were successful demonstrated a high need to achieve no matter the culture. There are three major characteristics of people who have a great need to achieve according to McClelland's research.

1. They would prefer a work environment in which they are able to assume responsibility for solving problems.
2. They would take calculated risk and establish moderate, attainable goals.
3. They want to hear continuous recognition, as well as feedback, in order for them to know how well they are doing.^[51]

2.12 Cognitive theories

The Cognitive Theory of motivation are derived from two basic theories which are the Goal-Setting Theory and the Expectancy Theory. The Goal-Setting Theory states the importance of setting a goal or which direction to aim for that goal in motivating an individual. As for the Expectancy Theory of Motivation states why and how people chooses to act in a certain way over another.^[52] Cognitive theory^[53] defines motivation in terms of how an individual reacts to different situations by examining and the process of thoughts to respond instead of an inner built set of instructions to react to different situations.

2.12.1 Goal-setting theory

Main article: Goal-setting theory

Goal-setting theory is based on the notion that individuals sometimes have a drive to reach a clearly defined end state. Often, this end state is a reward in itself. A goal's efficiency is affected by three features: proximity, difficulty and specificity. One common goal setting methodology incorporates the SMART criteria, in which goals are: specific, measurable, attainable/achievable, relevant, and time-bound. An ideal goal should present a situation where the time between the initiation of behavior and the end state is close. This explains why some children are more motivated to learn how to ride a bike than to master algebra. A goal should be moderate, not too hard or too easy to complete. In both cases, most people are not

optimally motivated, as many want a challenge (which assumes some kind of insecurity of success). At the same time people want to feel that there is a substantial probability that they will succeed. Specificity concerns the description of the goal in their class. The goal should be objectively defined and intelligible for the individual. A classic example of a poorly specified goal is to get the highest possible grade. Most children have no idea how much effort they need to reach that goal.

2.12.2 Expectancy theory

Main article: Expectancy theory

Expectancy theory was proposed by Victor H. Vroom in 1964, the Expectancy Theory explains the behavior process in which an individual selects a behavior option over another, and why/how this decision is made in relation to their goal.

There's also an equation for this theory which goes as follows: $M = E * I * V$ or Motivation = Expectancy * instrumentality * valence^[54] M(Motivation) is the amount an individual will be motivated by the condition or environment they placed themselves in. Which is based from the following hence the equation. "E(Expectancy) is the person's perception that effort will result in performance. In other words, it's the person assessment of how well and what kind of effort will relate in better performance. I(Instrumentality) is the person's perception that performance will be rewarded or punished. V(Valence) is the perceived amount of the reward or punishment that will result from the performance."^[55]

2.13 Models of behavior change

Social-cognitive models of behavior change include the constructs of motivation and volition. Motivation is seen as a process that leads to the forming of behavioral intentions. Volition is seen as a process that leads from intention to actual behavior. In other words, motivation and volition refer to goal setting and goal pursuit, respectively. Both processes require self-regulatory efforts. Several self-regulatory constructs are needed to operate in *orchestration* to attain goals. An example of such a motivational and volitional construct is perceived *self-efficacy*. Self-efficacy is supposed to facilitate the forming of behavioral intentions, the development of action plans, and the initiation of action. It can support the translation of intentions into action.

John W. Atkinson, David Birch and their colleagues developed the theory of "Dynamics of Action" to mathematically model change in behavior as a consequence of the interaction of motivation and associated tendencies toward specific actions.^{[56][57]} The theory posits that change in behavior occurs when the tendency for a new,

unexpressed behavior becomes dominant over the tendency currently motivating action. In the theory, the strength of tendencies rises and falls as a consequence of internal and external stimuli (sources of instigation), inhibitory factors, and consummatory in factors such as performing an action. In this theory, there are three causes responsible for behavior and change in behavior:

1. Instigation (Ts) - increases tendency when an activity has intrinsic ability to satisfy;
2. Inhibition (Taf) - decreases tendency when there are obstacles to performing an activity; and
3. Consummation - decreases a tendency as it is performed.^{[58][59]}

2.14 Thematic Apperception Test

Main article: [Thematic Apperception Test](#)

Psychologists David C. McClelland and John W. Atkinson argued that motivation should be unconscious. They refined measures of motivation by means of content analysis of imaginative thought using, for example, the Thematic Apperception Test.^{[60][61]}

2.15 Intrinsic motivation and the 16 basic desires theory

Starting from studies involving more than 6,000 people, Professor Steven Reiss has proposed a theory that found 16 basic desires that guide nearly all human behavior.^{[62][63]} Intrinsic motivation is the tendency to find challenges, to push to find out for more, explore, and learn as much as possible. It is about reaching the most possible potential as a human being.^[10] The 16 basic desires that motivate our actions and define our personalities are:

- Acceptance, the need for approval
- Curiosity, the need to learn
- Eating, the need for food
- Family, the need to raise children
- Honor, the need to be loyal to the traditional values of one's clan/ethnic group
- Idealism, the need for social justice
- Independence, the need for individuality
- Order, the need for organized, stable, predictable environments
- Physical activity, the need for exercise

- Power, the need for influence of will
- Romance, the need for sex and for beauty
- Saving, the need to collect
- Social contact, the need for friends (peer relationships)
- Social status, the need for social standing/importance
- Tranquility, the need to be safe
- Vengeance, the need to strike back and to compete

2.16 Attribution theory

Main article: [Attribution \(psychology\)](#)

Attribution theory is a theory developed by psychologist, Fritz Heider that describes the processes by which individuals explain the causes of their behavior and events.^[64] A form of attribution theory developed by psychologist, Bernard Weiner describes an individual's beliefs about how the causes of success or failure affect their emotions and motivations. Bernard Weiner's theory can be defined into two perspectives: intrapersonal or interpersonal. The intrapersonal perspective includes self-directed thoughts and emotions that are attributed to the self. The interpersonal perspective includes beliefs about the responsibility of others and other directed affects of emotions; the individual would place the blame on another individual.^[65]

Individuals formulate explanatory attributions to understand the events they experience and to seek reasons for their failures. When individuals seek positive feedback from their failures, they use the feedback as motivation to show improved performances. For example, using the intrapersonal perspective, a student who failed a test may attribute their failure for not studying enough and would use their emotion of shame or embarrassment as motivation to study harder for the next test. A student who blames their test failure on the teacher would be using the interpersonal perspective, and would use their feeling of disappointment as motivation to rely on a different study source other than the teacher for the next test.

2.17 Approach versus avoidance

Approach motivation can be defined as when a certain behavior or reaction to a situation/environment is rewarded or the resulting in a positive/desirable outcome. In contrast, avoidance motivation can be defined as when a certain behavior or reaction to a situation/environment is punished or resulting in a negative/undesirable outcome.^{[60][66]} Research suggests that, all else being equal, avoidance motivations tend to be

more powerful than approach motivations. Because people expect losses to have more powerful emotional consequences than equal-size gains, they will take more risks to avoid a loss than to achieve a gain.^[60]

3 Practical applications

The control of motivation is only understood to a limited extent. There are many different approaches of *motivation training*, but many of these are considered **pseudoscientific** by critics. To understand how to control motivation it is first necessary to understand why many people lack motivation.

3.1 Employee motivation

Main article: [Employee motivation](#)

Motivation is an essential tool for any leader. Using it properly is key for the successful application. You must choose which theory you are going to use, to have a good outline to apply motivation. Such as Maslow's Hierarchy of Needs theory. Next you must decide what kind of style you are going to use to manage and implement your motivation techniques, such as: Theory X, Theory Y, or a hybrid form of the two. Finally you must decide if the current application is working and what other changes can be made to achieve optimal motivation. Such as new policies to the workplace, designing offices to promote intermingling between management and the workforce. If a solid theory is chosen and proper managerial techniques used, it can be expected to see a rise in productivity and quality of work performed. But motivation is a never ending cycle and can be lost as quickly as it can be gained. The application of motivation must be constantly maintained. Workers in any organization need something to keep them working. Most of the time, the salary of the employee is enough to keep him or her working for an organization. An employee must be motivated to work for a company or organization. If no motivation is present in an employee, then that employee's quality of work or all work in general will deteriorate. People differ on a personality dimension called locus of control. This variable refers to individual's beliefs about the location of the factors that control their behavior. At one end of the continuum are high internals who believe that opportunity to control their own behavior rests within themselves. At the other end of the continuum there are high externals who believe that external forces determine their behavior. Not surprisingly, compared with internals, externals see the world as an unpredictable, chancy place in which luck, fate, or powerful people control their destinies.^[67] When motivating an audience, you can use general motivational strategies or specific motivational appeals. General motivational strategies include soft sell versus hard sell and

personality type. Soft sell strategies have logical appeals, emotional appeals, advice and praise. Hard sell strategies have barter, outnumbering, pressure and rank. Also, you can consider basing your strategy on your audience personality. Specific motivational appeals focus on provable facts, feelings, right and wrong, audience rewards and audience threats.^[68]

3.1.1 Job characteristics model

Main article: [Job characteristics model](#)

The job characteristics Model (JCM), as designed by Hackman^[69] and Oldham attempts to use job design to improve employee motivation. They show that any job can be described in terms of five key job characteristics:^{[70][71]}

1. *Skill Variety* - the degree to which the job requires the use of different skills and talents
2. *Task Identity* - the degree to which the job has contributed to a clearly identifiable larger project
3. *Task Significance* - the degree to which the job has an impact on the lives or work of other people
4. *Autonomy* - the degree to which the worker has independence, freedom and discretion in carrying out the job
5. *Task Feedback* - the degree to which the worker is provided with clear, specific, detailed, *actionable* information about the effectiveness of his or her job performance

The JCM links the core job dimensions listed above to critical psychological states which results in desired personal and work outcomes. This forms the basis of this 'employee growth-need strength.' The core dimensions listed above can be combined into a single predictive index, called the *Motivating Potential Score*.

Motivating potential score See also: [Work motivation](#) and [Job satisfaction](#)

The motivating potential score (MPS) can be calculated, using the core dimensions discussed above, as follows:

$$\text{MPS} = \frac{\text{Significance} \times \text{Identity} + \text{Task Variety} + \text{Task Skill}}{3} \times \text{Autonomy} \times \text{Feedback}$$

Jobs high in motivating potential must be high on at least one of the three factors that lead to experienced meaningfulness, and also must be high on both Autonomy and Feedback.^[72] If a job has a high MPS, the job characteristics model predicts motivation, performance and job satisfaction will be positively affected and the likelihood of negative outcomes, such as absenteeism and turnover, will be reduced.^[72]

3.1.2 Employee recognition programs

Employee recognition is not only about gifts and points. It's about changing the corporate culture in order to meet goals and initiatives and most importantly to connect employees to the company's core values and beliefs. Strategic employee recognition is seen as the most important program not only to improve employee retention and motivation but also to positively influence the financial situation.^[73] The difference between the traditional approach (gifts and points) and strategic recognition is the ability to serve as a serious business influencer that can advance a company's strategic objectives in a measurable way. "The vast majority of companies want to be innovative, coming up with new products, business models and better ways of doing things. However, innovation is not so easy to achieve. A CEO cannot just order it, and so it will be. You have to carefully manage an organization so that, over time, innovations will emerge."^[74]

3.2 Drugs Use and Abuse

Some authors, especially in the *transhumanist* movement, have suggested the use of "smart drugs", also known as *nootropics*, as "motivation-enhancers". These drugs work in various ways to affect neurotransmitters in the brain. It is generally widely accepted that these drugs enhance cognitive functions, but not without potential side effects.^[75] The effects of many of these drugs on the brain are emphatically not well understood, and their legal status often makes open experimentation difficult.

3.3 Education

Motivation is of particular interest to *educational psychologists* because of the crucial role it plays in student learning. However, the specific kind of motivation that is studied in the specialized setting of education differs qualitatively from the more general forms of motivation studied by psychologists in other fields.

Motivation in education can have several effects on how students learn and how they behave towards subject matter.^[76] It can:

1. Direct behavior toward particular goals
2. Lead to increased effort and energy
3. Increase initiation of, and persistence in, activities
4. Enhance cognitive processing
5. Determine what consequences are reinforcing
6. Lead to improved performance.

Because students are not always internally motivated, they sometimes need *situated motivation*, which is found in environmental conditions that the teacher creates.

If teachers decided to extrinsically reward productive student behaviors, they may find it difficult to extricate themselves from that path. Consequently, student dependency on extrinsic rewards represents one of the greatest detractors from their use in the classroom.^[77]

The majority of new student orientation leaders at colleges and universities recognize that distinctive needs of students should be considered in regard to orientation information provided at the beginning of the higher education experience. Research done by Whyte in 1986 raised the awareness of counselors and educators in this regard. In 2007, the National Orientation Directors Association reprinted *Cassandra B. Whyte's* research report allowing readers to ascertain improvements made in addressing specific needs of students over a quarter of a century later to help with academic success.^[78]

Generally, motivation is conceptualized as either *intrinsic* or *extrinsic*. Classically, these categories are regarded as distinct.^[79] Today, these concepts are less likely to be used as distinct categories, but instead as two ideal types that define a continuum.^[80]

1. **Intrinsic motivation** occurs when people are internally motivated to do something because it either brings them pleasure, they think it is important, or they feel that what they are learning is significant. It has been shown that intrinsic motivation for education drops from grades 3-9 though the exact cause cannot be ascertained.^[81] Also, in younger students it has been shown that contextualizing material that would otherwise be presented in an abstract manner increases the intrinsic motivation of these students.^[82]
2. **Extrinsic motivation** comes into play when a student is compelled to do something or act a certain way because of factors external to him or her (like money or good grades).

Cassandra B. Whyte researched and reported about the importance of locus of control and academic achievement. Students tending toward a more internal locus of control are more academically successful, thus encouraging curriculum and activity development with consideration of motivation theories.^{[83][84]}

Academic motivation orientation may also be tied with one's ability to detect and process errors. Fisher, Nanayakkara, and Marshall conducted neuroscience research on children's motivation orientation, neurological indicators of error monitoring (the process of detecting an error), and academic achievement. Their research suggests that students with high intrinsic motivation attribute performance to personal control and that their error-monitoring system is more strongly engaged by performance errors. They also found that motivation orientation and academic achievement were related to the strength in which their error-monitoring system was engaged.^[85]

Motivation has been found to be an important element in the concept of **Andragogy** (what motivates the adult learner), and in treating Autism Spectrum Disorders, as in **Pivotal Response Therapy**.

Doyle and Moeyn have noted that traditional methods tended to use anxiety as negative motivation (e.g. use of bad grades by teachers) as a method of getting students to work. However, they have found that progressive approaches with focus on positive motivation over punishment has produced greater effectiveness with learning, since anxiety interferes with performance of complex tasks.^[86]

3.3.1 Indigenous education and learning

For many indigenous students (such as **Native American** children), motivation may be derived from social organization; an important factor educators should account for in addition to variations in **Sociolinguistics** and **Cognition**.^[87] While poor academic performance among Native American students is often attributed to low levels of motivation, **Top-down** classroom organization is often found to be ineffective for children of many cultures who depend on a sense of community, purpose, and competence in order to engage.^[88] Horizontally-structured, community-based learning strategies often provide a more structurally supportive environment for motivating **indigenous children**, who tend to be driven by “social/affective emphasis, harmony, holistic perspectives, expressive creativity, and **nonverbal communication**.”^[89] This drive is also traceable to a cultural tradition of community-wide expectations of participation in the activities and goals of the greater group, rather than individualized aspirations of success or triumph.^[90]

In some indigenous communities, young children can often portray a sense of community-based motivation through their parent-like interactions with siblings.^[91] Furthermore, it is commonplace for children to assist and demonstrate for their younger counterparts without being prompted by authority figures. **Observation techniques** and **integration methods** are demonstrated in such examples as weaving in Chiapas, Mexico, where it is commonplace for children to learn from “a more skilled other” within the community.^[92] The child’s real responsibility within the Mayan community can be seen in, for example, weaving apprenticeships; often, when the “more skilled other” is tasked with multiple obligations, an older child will step in and guide the learner.^[92] Sibling guidance is supported from early youth, where **learning through play** encourages horizontally-structured environments through alternative educational models such as “**Intent Community Participation**.”^[93] Research also suggests that that formal Westernized schooling can actually reshape the traditionally collaborative nature of social life in indigenous communities.^[94] This research is supported cross-culturally, with variations in motivation and learning often reported higher between indigenous groups and their

national Westernized counterparts than between indigenous groups across international continental divides.^[95]

3.3.2 Self-determination in education

Self-determination is the ability to make choices and exercise a high degree of control, such as what the student does and how they do it (Deci et al., 1991; Reeve, Hamm, & Nix, 2003; Ryan & Deci, 2002). Self-determination can be supported by providing opportunities for students to be challenged, such as leadership opportunities, providing appropriate feedback and fostering, establishing and maintaining good relationships between teachers and students. These strategies can increase students’ interest, competence, creativity and desire to be challenged and ensure that students are intrinsically motivated to study. On the other hand, students who lack of self-determination are more likely to feel their success is out of their control. Such students lose motivation to study, which causes a state of “helpless learning”. Students who feel helpless readily believe they will fail and therefore cease to try. Over time, a vicious circle of low achievement develops.

3.3.3 Physical activity in education

Physical activity is body movement that works your muscles and requires more energy than resting. According to a blog by the American Intercontinental University, college students should make time for exercise to maintain and increase motivation. AIU states that regular exercise has impeccable effects on the brain. With consistent running routines, there are more complex connections between neurons, meaning the brain is able to access its brain cells more flexibly. By performing well physically, motivation will be present in education because of how well the brain is performing. After exercising, the brain can have more desire to obtain knowledge and better retain the information. In addition, exercise can relieve stress. Exercising can ease anxiety and relieve negative effects of stress on the body. Without stress factors, individuals can perform better and more efficiently, since their minds will have a more positive outlook. This positive mood will help keep students motivated and more open and willing to succeed academically. Lastly, exercise increases focus and concentration that could also help students maintain their motivation and focus on their studies. AIU claims that exercise may have improved the students’ ability to participate and retain information during the class after they had exercised. Being able to retain information and being willing to participate keeps students motivated and performing well academically.^[96]

3.4 Business

Main article: *Work motivation*

At lower levels of *Maslow's hierarchy of needs*, such as physiological needs, money is a motivator, however it tends to have a motivating effect on staff that lasts only for a short period (in accordance with *Herzberg's two-factor model of motivation*). At higher levels of the hierarchy, praise, respect, recognition, *empowerment* and a sense of belonging are far more powerful motivators than money, as both *Abraham Maslow's theory of motivation* and *Douglas McGregor's theory X and theory Y* (pertaining to the theory of leadership) demonstrate.

According to Maslow, people are motivated by unsatisfied needs.^[97] The lower level needs such as Physiological and Safety needs will have to be satisfied before higher level needs are to be addressed. We can relate Maslow's Hierarchy of Needs theory with employee motivation. For example, if a manager is trying to motivate his employees by satisfying their needs; according to Maslow, he should try to satisfy the lower level needs before he tries to satisfy the upper level needs or the employees will not be motivated. Also he has to remember that not everyone will be satisfied by the same needs. A good manager will try to figure out which levels of needs are active for a certain individual or employee.

Maslow has money at the lowest level of the hierarchy and shows other needs are better motivators to staff. McGregor places money in his Theory X category and feels it is a poor motivator. Praise and recognition are placed in the Theory Y category and are considered stronger motivators than money.

- Motivated employees always look for better ways to do a job.
- Motivated employees are more quality oriented.
- Motivated workers are more productive.

The average workplace is about midway between the extremes of high threat and high opportunity. Motivation by threat is a dead-end strategy, and naturally staff are more attracted to the opportunity side of the motivation curve than the threat side. Motivation is a powerful tool in the work environment that can lead to employees working at their most efficient levels of production.^[98]

Nonetheless, Steinmetz also discusses three common character types of subordinates: ascendant, indifferent, and ambivalent who all react and interact uniquely, and must be treated, managed, and motivated accordingly. An effective leader must understand how to manage all characters, and more importantly the manager must utilize avenues that allow room for employees to work, grow, and find answers independently.^[99]

The assumptions of Maslow and Herzberg were challenged by a classic study^[100] at Vauxhall Motors' UK manufacturing plant. This introduced the concept of orientation to work and distinguished three main orientations: instrumental (where work is a means to an end), bureaucratic (where work is a source of status, security and immediate reward) and solidaristic (which prioritizes group loyalty).

Other theories which expanded and extended those of Maslow and Herzberg included *Kurt Lewin's Force Field Theory*, *Edwin Locke's Goal Theory* and *Victor Vroom's Expectancy theory*. These tend to stress cultural differences and the fact that individuals tend to be motivated by different factors at different times.^[101]

According to the system of *scientific management* developed by *Frederick Winslow Taylor*, a worker's motivation is solely determined by pay, and therefore management need not consider psychological or social aspects of work. In essence, scientific management bases human motivation wholly on extrinsic rewards and discards the idea of intrinsic rewards.

In contrast, *David McClelland* believed that workers could not be motivated by the mere need for money—in fact, extrinsic motivation (e.g., money) could extinguish intrinsic motivation such as achievement motivation, though money could be used as an indicator of success for various motives, e.g., keeping score. In keeping with this view, his consulting firm, *McBer & Company*, had as its first motto “To make everyone productive, happy, and free.” For McClelland, satisfaction lay in aligning a person's life with their fundamental motivations.

Elton Mayo found that the social contacts a worker has at the workplace are very important and that boredom and repetitiveness of tasks lead to reduced motivation. Mayo believed that workers could be motivated by acknowledging their social needs and making them feel important. As a result, employees were given freedom to make decisions on the job and greater attention was paid to informal work groups. Mayo named the model the *Hawthorne effect*. His model has been judged as placing undue reliance on social contacts within work situations for motivating employees.^[102]

William Ouchi introduced *Theory Z*, a hybrid management approach consisting of both Japanese and American philosophies and cultures.^[103] Its Japanese segment is much like the clan culture where organizations focus on a standardized structure with heavy emphasis on socialization of its members. All underlying goals are consistent across the organization. Its American segment retains formality and authority amongst members and the organization. Ultimately, *Theory Z* promotes common structure and commitment to the organization, as well as constant improvement of work efficacy.

In *Essentials of Organizational Behavior*, Robbins and Judge examine recognition programs as motivators, and

identify five principles that contribute to the success of an employee incentive program:^[104]

- Recognition of employees' individual differences, and clear identification of behavior deemed worthy of recognition
- Allowing employees to participate
- Linking rewards to performance
- Rewarding of nominators
- Visibility of the recognition process

3.5 Games

Motivational models are central to game design, because without motivation, a player will not be interested in progressing further within a game.^[105] Several models for gameplay motivations have been proposed, including Richard Bartle's. Jon Radoff has proposed a four-quadrant model of gameplay motivation that includes co-operation, competition, immersion and achievement.^[106] The motivational structure of games is central to the gamification trend, which seeks to apply game-based motivation to business applications.^[107] In the end, game designers must know the needs and desires of their customers for their companies to flourish.

There have been various studies on the connection between motivation and games. One particular study was on Taiwanese adolescents and their drive of addiction to games. Two studies by the same people were conducted. The first study revealed that addicted players showed higher intrinsic than extrinsic motivation and more intrinsic motivation than the non-addicted players.^[108] It can then be said that addicted players, according to the studies findings, are more internally motivated to play games. They enjoy the reward of playing. There are studies that also show that motivation gives these players more to look for in the future such as long-lasting experience that they may keep later on in life.^[109]

4 See also

- Adaptive performance
- Addiction
- Amotivational syndrome
- Andragogy
- Dopamine
- Equity theory
- Flow

- Goal orientation
- Happiness at work
- Health Action Process Approach
- Hedonic motivation
- Human behavior
- Human Potential Movement
- Humanistic psychology
- Industrial and organizational psychology
- I-Change Model
- Incentive program
- Learned industriousness
- Locus of control
- Motivation crowding theory
- Organismic theory
- Organizational behavior
- Personality psychology
- Positive education
- Positive Psychology in the Workplace
- Regulatory Focus Theory
- Rubicon model (psychology)
- Self-determination theory
- Self-efficacy
- Sexual motivation and hormones
- Social cycle theory
- Theory Z of Ouchi
- Volition
- Work engagement

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else. I don't see that it makes any *point* that someone in the Swedish Academy decides that this work is "Nobel" enough to receive a prize. I've already got the prize. The prize is the pleasure of finding the thing out, the kick in the discovery, the observation that other people use it. Those are the *real* things. The honors are unreal to me."

7 External links

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