

# Motivation

## Why We Do What We Do

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### Brief Outline:

- I. The Language of Motivation
- II. Psychological Schools of Thought
- III. Theories of Motivation
- IV. Motivation and Learning

### I. The Language of Motivation

- **Motivation:** The force that moves people to think, feel, and behave the way they do. Motivation can be *intrinsic* (originate within the organism) or *extrinsic* (originate from outside the organism). Motivated behavior is energized, directed, and sustained (King, 2008).
  - **Instinct:** An innate (unlearned), biological pattern of behavior that is assumed to be universal throughout the species. Generally, an instinct is set in motion by a “sign stimulus”—something in the environment that turns on a fixed pattern of behavior.
    - Examples: acquisitiveness, curiosity, pugnacity, gregariousness, and self-assertion. (McDougall, 1908); sucking and grasping (at birth); sexual behavior (later in life); aggression, achievement (Bjorkland, 2007; Buss, 2008; Geary, 2006).
    - Questions: Do all instincts have an evolutionary purpose? Do instincts simply *name* behaviors or can they actually *explain* behaviors?
  - **Drives:** An aroused state that occurs because of a physiological need, e.g., thirst, desire. (Note that drives—primarily psychological—do not always follow from physiological needs.)
  - **Needs:** A deprivation that energizes the drive to eliminate or reduce the deprivation, e.g., water, chocolate. (Note that needs—often physiological—do not always involve physiological states.)

### II. Psychological Schools of Thought

- **Psychoanalytic Psychology:** Developed by Sigmund Freud (1856-1939) and his disciples (e.g., Carl Jung). Emphasis on psychosexual development, the unconscious, and a three-part psyche: id (fueled by the pleasure principle and a death instinct, “I want”); ego (fueled by the reality principle, “I can”); and superego (fueled by morality and conscience, “I should or shouldn’t”).
  - **Motivational Premise:** Much of a person’s behavior is motivated by unconscious drives (to satisfy basic urges) and the conflicts between those urges, the real world, and a person’s conscience (i.e., the id, ego, and superego). Observed behavior is the outcome of that three-way conflict, tempered by defense mechanisms, such as sublimation (redirection of an inappropriate urge into an appropriate one).
  - **Example:** Sam appears highly motivated to spend hours each day teaching himself how to program computers. Plausible psychoanalytic explanation: Sam is defensively sublimating his urges to spend hours each day watching pornography on a computer. Alternate plausible psychoanalytic explanation: Sam is exerting control over one domain of competence (computers) to compensate for a lack of control over another domain (his parents divorce).



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- **Behavioral Psychology:** Developed by John B. Watson (1878-1958), Edward Thorndike (1874-1949), and B. F. Skinner (1904-1990), among others. Emphasis on history of reinforcements and punishments (what has been praised and what has been punished) and current conditions (environmental contingencies). Focus exclusively on observable behaviors, not thoughts or feelings.
  - **Motivational Premise:** All of a person's behavior is motivated by seeking praise and avoiding punishment. Observed behavior is the outcome of shaping, which is the detailed history of praise and punishment. Primary reinforcers satisfy biological urges, such as hunger and physical pleasure. Secondary reinforcers, such as money or social praise, are one step removed from biological urges, but are ultimately connected to primary reinforcers.
  - **Example:** Rachel appears highly motivated to spend hours each day learning Latin vocabulary and conjugations. Plausible behavioral explanation: Rachel has received \$100 from her parents for every A grade she receives. Alternate plausible behavioral explanation: Rachel has been told, since she was a little girl, that she is smart and "can do anything she sets her mind to."
  
- **Humanistic Psychology & Attachment Theory:** Developed by theorists, such as Abraham Maslow (1908-1970), clinicians, such as Carl Rogers (1902-1987) and researchers, such as John Bowlby (1907-1990), Mary Ainsworth (1913-1999), and Harry Harlow (1905-1981). Emphasis on hierarchical human needs and close interpersonal relationships, especially parent-child attachment, nurturing, and comfort.
  - **Motivational Premise:** Early in life, much of a person's behavior is motivated by fulfilling human needs and the creation and maintenance of warm and reliable relationships with primary caregivers. Later in life, much behavior is motivated by the pursuit, creation, and maintenance of warm and reliable relationships with other attachment figures, either romantic or platonic.
  - **Example:** Eve appears highly motivated to spend hours each day practicing the piano. Plausible explanation: She is very close to her piano teacher, who shows great interest both in her musical development and in the challenges of her difficult home life, which includes an alcoholic father. Alternate plausible explanation: Eve experiences unconditional positive regard from her loving parents, who have always supported her musical career from a young age.
  
- **Cognitive Psychology:** Developed by Chomsky (b. 1928) and many others, including Ulric Neisser (b. 1928). Emphasis on the brain's innate capacity and evolved structures that prepare it to learn and grow and function in ways that are similar to a computer, to perform dynamic information processing. In contrast to behaviorism, there is considerable emphasis on thought processes, which are unobservable or only vaguely observable. Cognitive neuroscience helps reconcile this tension.
  - **Motivational Premise:** Cognitive psychology focuses on internal mental processes and computer analogies, but it has been criticized for ignoring motivation and drives. Cognitive theorists talk about how the human brain is prewired to learn certain skills (e.g., any of thousands of different languages, depending on what we are exposed to) but not to learn other skills (e.g., flying, not matter how much exposure we may have to organisms that fly).
  - **Example:** Without much apparent effort, five-year-old Will has learned to speak Cantonese fluently. No parent or teacher ever sat down and gave him a Cantonese lesson, nor did they correct many of his early mistakes and mispronunciations. His vocabulary now includes several thousand words with an average of 10 new words being acquired daily. Like most native speakers—both young and old—he remembers these words and makes few grammatical errors.

Notes on Psychological Schools of Thought:



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### III. Theories of Motivation

- **Drive Reduction Theory:** As a drive becomes stronger, we are motivated to reduce it. The goal of drive reduction is homeostasis (temperature, blood sugar level, potassium and sodium levels, oxygenation).
  - Problem: People often behave in ways that increase rather than reduce drives or tensions (King, 2008). Imagine the person who skips meals in order to lose weight but becomes more hungry. Imagine the alcoholic who satisfies one craving but destroys his liver in the process.
- **Optimum Arousal Theory:** Rather than acting to decrease drives, individuals sometimes seem to seek out stimulation. These behaviors suggest that individuals seek arousal (a state of alertness or activation) in their lives (King, 2008).
  - Yerkes-Dodson law: Performance is best under conditions of moderate arousal, rather than either low or high arousal. Being too lethargic or too nervous to perform a task is problematic.
- **Maslow's Hierarchy of Human Needs:** Explains the order of motivated behaviors to be a function of needs, which are arranged hierarchically. Basic physiological needs (e.g., food, safety) must be satisfied before mid-level needs (e.g., love and belongingness), which must in turn be satisfied before higher-order needs, such as self-esteem. Self-actualization—the development of one's full potential as a human being—is the highest need but is possible only after other needs in the hierarchy are met.
  - Question: What motivates human behavior when all basic needs for survival are met?
  - Problem: What explains self-actualizing or unselfish behavior among people whose basic physiological and safety needs are *not* being met?
- **Self-Determination Theory:** Organisms have three basic, innate, psychological needs: Competence, Autonomy, and Relatedness (Deci & Ryan, 2002). Rather than arising from deficits (as in drive-reduction theory), these needs concern personal growth.
  - **Competence:** This need is met when we feel that we are able to bring about desired outcomes.
  - **Relatedness:** This need is met when we engage in warm, intimate relations with other people.
  - **Autonomy:** This need is met when we sense that we are in control of our own lives and that our behavior is self-motivated and emerging from genuine interest.
  - Question: How do these core psychological needs vary by culture? Are they universal?
  - Problem: What happens when any behavior—especially in education—is prescribed by the teacher, rather than freely chosen by the learner?
- **Intrinsic and Extrinsic Motivation**
  - **Intrinsic Motivation:** Based on internal factors such as an organism's psychological needs (competence, relatedness, autonomy) as well as curiosity, challenge, and effort (some of which increase arousal) and an organism's physiological needs (for food, water, oxygen, sex). This is motivation that comes "from the inside," causing us to engage in behaviors because we enjoy it.
  - **Extrinsic Motivation:** Based on external incentives, such as rewards and punishments. This is when motivation comes "from the outside," causing us to engage in behaviors because we seek an external pay-off (money, praise, status) or are avoiding an external penalty (fine, criticism, humiliation).
    - Primary reinforcement: Any reinforcement that is innately satisfying, meaning that they do not require any learning on the organism's part to make them pleasurable (King, 2008). Examples include food, water, sexual behavior.
    - Secondary reinforcement: Any reinforcement that acquires its positive value through experience. Secondary reinforcers are learned or conditioned (King, 2008). Examples include: grades, praise, eye contact.
    - Token reinforcer: A kind of secondary reinforcement. Any object that can be exchanged for some other reinforcer, such as money, gift certificates, and poker chips.



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- **Problem:** Extrinsic rewards *may sometimes* diminish intrinsic motivation by suggesting to the organism that a reward, rather than free will, accounts for achievement behaviors. Alternatively, the implicit suggestion—when an extrinsic reward is offered—could be that the behavior in question is undesirable, hence the need for payment or some other extrinsic reinforcer.
    - Examples: monkey puzzle study (Harlow, 1949); human Soma puzzle study (Deci, 1969); coloring study with children (Leper, Green, & Nisbett, 1973).
  - **Possible Solution:** By rarifying participation in a target behavior, and even requiring payment *from the subject*, the opposite set of assumptions may emerge: The behavior in question is highly desirable. Intrinsic motivation can be cultivated in this way.
    - Example: Tom Sawyer excerpt (Twain/Clemens, 1875)
  - **Remember:** Both intrinsic and extrinsic rewards can be effective. Recent authors have maligned extrinsic rewards (e.g., Pink, 2009). In reality, some combination of intrinsic and extrinsic rewards is usually at play, in a fairly complex interaction. Although certain kinds of extrinsic rewards can—when presented as the only incentive—kill motivation, it is uncommon that extrinsic rewards are presented to students or workers as the *only* incentive for performing a target behavior. Equally uncommon is that such extrinsic rewards are suddenly removed despite continued demands to produce a target behavior. Beware of oversimplification when it comes to classifying certain kinds of rewards as inherently bad. Context matters here.
- **Self-Regulation Theory:** The systematic and self-generated pursuit of goals (especially specific, short-term, challenging goals) motivates behavior. According to King (2007b) putting our personal goals into action is a potentially complex process that involves setting goals, planning for their implementation, and monitoring our progress.
    - Especially important is accepting that we cannot be a good mood all the time and being open to the bad news that might occasionally come our way (King, 2007a).
    - It also seems important that goals concern what you want to accomplish rather than what you want to avoid. The pursuit of avoidant goals is associated with poor performance and distress (Elliot & Sheldon, 1999). See: Appreciative Inquiry below.
    - High-achieving individuals monitor their own learning and systematically evaluate their progress toward their goals more than low-achieving individuals do (Anderman & Wolters, 2006; Wigfield et al., 2006).
    - Humans can be exquisitely receptive—and therefore vulnerable—to external shaping of goals.
      - Example: Muzaffer Sherif (1961) and Robbers Cave study
        - When encouraged by camp counselors to compete in contests against a newly discovered “other” group of campers, many boys at this summer camp in Oklahoma became fiercely competitive. Attitudes of one team toward the other were often harsh and negative. Violence erupted. Prejudice blossomed.
        - However, when those same boys were asked to cooperate and work on a single project with a single goal (e.g., repair the only water supply to the camp), they united well. Attitudes toward the “out group” became much more positive.
      - Example: Stanley Milgram (1965, 1974) and obedience to authority
        - When asked by an experimenter to engage in a “study on learning,” participant “teachers” delivered electric shocks to confederates they believed to be co-participants in the study. Each time the “learners” made mistakes, the “teachers” were instructed to deliver ever-stronger electric shocks.
        - Surprisingly, 35% of participants obeyed the experimenter’s request to eventually deliver what they believed to be highly dangerous shocks marked “XXX” on a (fake) dial. The experimenter would say, “I will take responsibility.”
        - Although this series of studies has been used to paint a dark picture of human nature (we will follow orders and hurt a fellow human being as long as someone else is taking responsibility for our actions), keep in mind that more than one



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third of participants disobeyed the experimenter and stopped delivering what they thought were shocks to the participant “learners.”

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## IV. Motivation and Learning

- **Mindset**

- Fixed vs. Growth Mindset (Dweck, 2006)
  - People who believe that intelligence (or specific competencies) can grow as a byproduct of exploration and participation are likely to approach challenging tasks with enthusiasm and optimism that they can learn. Those who believe that intelligence (or specific competencies) are fixed traits tend to shy away from challenging tasks, see sub-optimal performance as failure, and become discouraged.
  - People with growth mindsets feel more motivated than those with fixed mindsets. Those with growth mindsets tend to make internal attributions for outcomes (e.g., “I tried hard and I understood half of the problems.”) whereas those with fixed mindsets tend to externalize outcomes (e.g., “The teacher is a jerk.”) and make categorical self-statements (e.g., “I suck at math.”)
  - It is possible to switch mindsets, even rather quickly. For example, framing a set of quantitative problems as “a puzzle” rather than “a test” helps people persevere longer and eventually do better. Performance is also enhanced (and growth mindsets established) when teachers praise students’ efforts rather than intelligence (e.g., “You must have worked really hard” vs. “You must be very smart at this.”)
- Appreciative Inquiry (Cooperrider & Whitney, 2005)
  - People who view organizations as mysteries to be embraced, rather than problems to be solved, are most likely to feel happy, optimistic, creative, and motivated.
  - Problem-solving and appreciative inquiry are a dialectic—two sides of the same coin. Organizational change is smoothest and most durable with an appreciative inquiry approach.
  - Appreciative inquiry’s starting position is a growth mindset: organizations wouldn’t exist unless a lot of things were not already going really well. The central question then becomes: What can we do more of to get more of these wonderful outcomes? (See Appreciative Inquiry handout for additional details.)

- **Cognitive-Social Theories**

- Mastery Hollowell (2003)
  - “Mastery is the great motivator because people like to do what they do well.”
  - “The feeling of mastery, and the wish to experience it again, transforms a child, or an adult, from a reluctant, fearful learner into a self-motivated player.”
  - The five-step cycle of motivation and happiness is: connection, play, practice, mastery, and recognition. Roots of this five-step cycle are found in Attachment Theory, Self-Determination Theory, and Maslow’s notion of self-actualization.
  - “A great teacher is a person who can lead another person to mastery.”
  - Excessive criticism or excessively high expectations can block the feeling of mastery, even when there is outstanding achievement.
- Self-Actualization—Revised Pink (2009)
  - Emphasis on intrinsic motivation and how good it feels to grow, develop, and realize one’s full potential. (Similar in many ways to Self-Determination Theory, in the context of Maslow’s hierarchy [once physiological needs are met, it’s self-actualization that feels the best].) Emphasis on how intrinsically motivating curiosity and discovery are.
  - Emphasis on autonomy (people want to have control over their work), mastery (people want to get better at what they do), and purpose (people want to be part of something that is bigger than they are).
  - De-emphasis (even vilification) of purely extrinsic incentives, such as money.

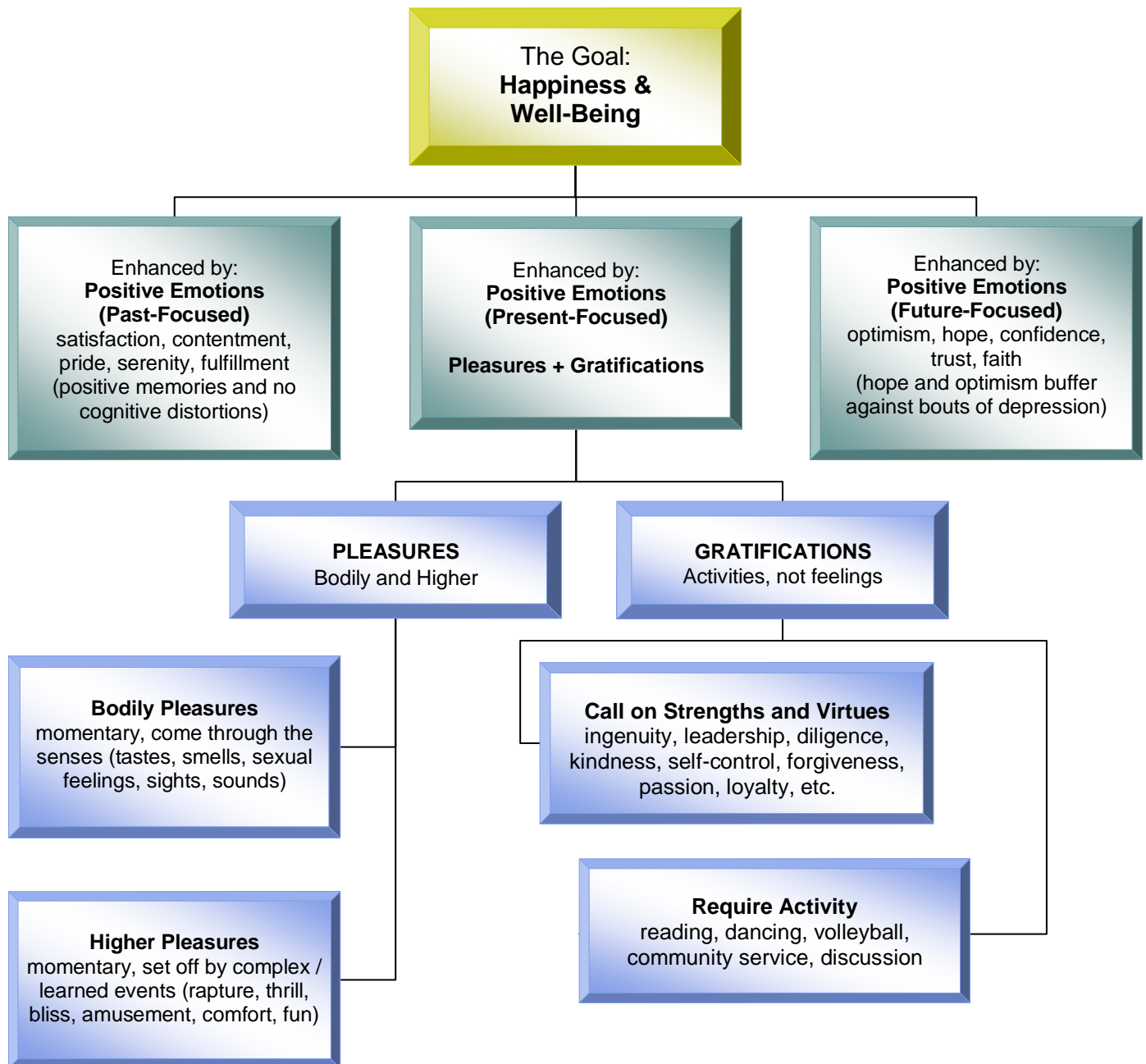


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- **Positive Psychology** Seligman (2004)



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- **Positive Psychology**

- **Motivating Force**, or what Seligman calls “**A Full Life**”: Authentic happiness comes from experiencing positive emotions about the past and future, savoring positive feelings from the pleasures, deriving abundant gratification from your signature strengths, and using these strengths in the service of something larger to obtain meaning.
  - Example: Maids study
  - Example: Savoring

**Virtues:** Cross-cultural research has suggested 6 virtues, attained through *strengths* of character.

- Wisdom & Knowledge
- Courage
- Love & Humanity
- Justice
- Temperance
- Spirituality & Transcendence

**Strengths:** Cross-cultural research has suggested there are 24 character strengths:

- Curiosity / Interest in the World
- Love of Learning
- Judgement / Critical Thinking / Open-Mindedness
- Ingenuity / Originality / Practical Intelligence / Street Smarts
- Social Intelligence / Personal Intelligence / Emotional Intelligence
- Perspective
- Valor and Bravery
- Perseverance / Industry / Diligence
- Integrity / Genuineness / Honesty
- Kindness and Generosity
- Loving and Allowing Oneself to Be Loved
- Citizenship / Duty / Teamwork / Loyalty
- Fairness and Equity
- Leadership
- Self-Control
- Prudence / Discretion / Caution
- Humility and Modesty
- Appreciation of Beauty and Excellence
- Gratitude
- Hope / Optimism / Future-Mindedness
- Spirituality / Sense of Purpose / Faith / Religiousness
- Forgiveness and Mercy
- Playfulness and Humor
- Zest / Passion / Enthusiasm



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### Can there be learning without motivation?

- Insight Learning (Kohler, 1925)
  - Observation of captive chimpanzees in a controlled laboratory setting suggested that some chimps did not learn by trial and error or simple connections between stimuli and responses, but through mental reflection and sudden “ah-ha” moments.
  - In his landmark study, Kohler observed a chimp in a room with some wooden crates and a bunch of bananas hanging from the ceiling. Reaching, jumping, and climbing on one box did not give the chimp enough of a boost to reach the fruit.
  - “When the ape realized that its customary actions were not going to help it get the fruit, it would sit for a period of time and appear to ponder how to solve the problem. Then, it quickly got up, as if it had had a sudden flash of insight, pile the boxes on top of one another, and get the fruit.” (Summarized by King, 2008, p. 271.)
  - Possible motivations?
- Implicit Learning (Tolman & Honzik, 1930)
  - Two groups of hungry rats were put in a maze, one at a time. In Phase 1, Group A received a food reward at the end; Group B did not. Group A quickly learned to run the maze and outperform Group B. This is what operant learning theory would predict.
  - In Phase 2, Group B was put back in the maze a bit later and offered a food reward at the end, they were able to run right to the end, just as Group A had done after multiple reinforced trials. This finding suggested that Group B had been learning while exploring, even though they were not offered a reward during Phase 1 of the study.
  - This phenomenon is also called “latent learning.”
  - Possible motivations?
- Observational Learning (Bandura, 1965)
  - Children who were frustrated and then observed an aggressive model (an adult punching an four-foot inflatable clown doll) imitated that behavior when left alone.
  - Bandura’s conclusion was that not all learned behavior is acquired through a combination of rewards and punishments.
  - Bandura’s current model has four parts: Attention, Retention, Motor Reproduction, and Reinforcement or Incentive Conditions, such as social praise (Bandura, 1986).
  - Possible motivations?

### Can there be motivation to change behavior without learning?

- Hawthorne Effect (Elton Mayo, circa 1930)
  - Positive effects of the presence of others
  - Feeling special, receiving feedback, attention
- Bystander Effect (John Darley & Bibb Latane, circa 1968)
  - Negative effects of the presence of others
  - Feeling anonymous, diffusion of responsibility

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How do you want to motivate students and faculty at your school?



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