

Kognitionspsychologie II: Session 6

Motivation: What is motivation?

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DO WE HAVE FREE WILL?

What are your arguments for and/or against?



Free Will

Determinism

All actions are causally determined, so free will (and moral responsibility) is illusory

Libertarianism

Actions are not pre-determined, agents can choose freely between alternatives

Compatibilism

Determinism and free will can coexist, free will is acting in line with one's desires, without external coercion.

<https://plato.stanford.edu/entries/freewill/>

Free Will and Motivation

Theories of motivation are implicitly or explicitly aligned with philosophical positions about free will. Those aligned with determinism typically focus on the deterministic causes (neurological, environmental, psychological) of human actions, without invoking free will. However, most views in psychology seem to adopt a compatibilist viewpoint, in which motivations, such as implicit impulses and desires, are seen as energizers of the free will process. compatibilist theories, like libertarian ones, emphasize the agent's power to choose actions that are not solely determined by prior motivations or causal factors and use associated terminology (see Table below).

Table 1
Definitions of Concepts Related to Free Will (FW)

Concept	Definition	Relation to FW
Free will	The capacity to ask oneself what to do, get possible answers, then make and enact a choice.	Draws from all processes below.
Autonomy	Acting with a feeling of freedom and self-engagement.	The human need to feel we are using our FW in a self-determined way.
Choice Agency	The act of deciding between alternatives. The ability to form intentions and take action.	Crossing the Rubicon within the goal selection process. Necessary to meet the criteria for FW, according to List (2019).
Motivations/motives	Implicit impulses and desires	Energizers of the FW process.
Goal	Explicit aim or desired result.	A conscious intention to enact a choice.
Volition	The faculty or power of using one's will.	Ways that people execute and protect their chosen goals.
Action phases	Predeliberation, then planning, then action, then evaluation.	The goal breakthrough model (presented below) focuses on the predeliberation phase.
Symbolic self	Includes the function of serving as a self-aware action executive.	May influence goal selection in accordance with the self's values.

Sheldon, K. M. (2024). The free will capacity: A uniquely human adaption. *American Psychologist*, 79(7), 928–941. <https://doi.org/10.1037/amp0001296>

Learning Objectives

- Discuss the issue of free will and reflect on its relation to theories of motivation
- Be familiar with different types of definitions of motivation
- Be able to distinguish three classes of theories of motivation (content, context, process) and list examples
- Learn about life span developmental theories of goal pursuit and disengagement

Motivation: Definitions

Table II. Number and Percentage of Definitions by Category of Primary and Secondary Emphasis

Definition category	Number (%) primary emphasis before 1970 (N = 37)	Number (%) secondary emphasis before 1970 (N = 37)	Total number (%) before 1970 (N = 37)	Number (%) primary emphasis since 1970 (N = 65)	Number (%) secondary emphasis since 1970 (N = 65)	Total number (%) since 1970 (N = 65)
Phenomenological	6 (16)	4 (11)	10 (27)	1 (2)	10 (15)	11 (17)
Physiological	4 (11)	5 (14)	9 (24)	7 (11)	15 (23)	22 (34)
Energizing	5 (14)	0 (0)	5 (14)	4 (6)	1 (2)	5 (8)
Directional/functional	3 (8)	6 (16)	9 (24)	12 (18)	9 (14)	21 (32)
Vector	9 (24)	9 (24)	18 (49)	16 (25)	14 (22)	30 (47)
Temporal-restrictive	1 (3)	0 (0)	1 (3)	5 (8)	1 (2)	6 (9)
Process-restrictive	4 (11)	3 (8)	7 (19)	7 (11)	9 (14)	16 (25)
Broad/balanced	2 (5)	—	2 (5)	6 (9)	—	6 (9)
All-inclusive	2 (5)	—	2 (5)	4 (6)	—	4 (6)
Skeptical	1 (3)	—	1 (3)	3 (5)	—	3 (5)
Total	37	27	64	65	59	124

Kleinginna and Kleinginna distinguish categories of definitions: **Phenomenological** definitions emphasize conscious experiences such as needs, desires, and emotions; **physiological** definitions emphasize internal bodily processes and physical needs; **energizing** definitions emphasize the arousal and sustaining of motivational states; **directional/functional** definitions emphasize the goal-directed and adaptive functions of motivation; **vector** definitions emphasize both the energizing and directional components of motivation; **temporal-restrictive** definitions emphasize motivation as temporary and occurring in the immediate present; **process-restrictive** definitions emphasize distinctions between motivation and other psychological processes; **broad/balanced** definitions emphasize multiple motivational aspects with equal importance; **all-inclusive** definitions emphasize all possible causes of behavior, both internal and external; and **skeptical** definitions emphasize doubts about the usefulness of the motivation concept.

“(...) we suggest the following physiological definition, with secondary emphasis on process-restrictive, vector, and phenomenological aspects. Motivation refers to those energizing/arousing mechanisms with relatively direct access to the final common motor pathways, which have the potential to facilitate and direct some motor circuits while inhibiting others. These mechanisms sometimes may influence sensory input and analysis as well.”

Kleinginna, P. R., & Kleinginna, A. M. (1981). A categorized list of motivation definitions, with a suggestion for a consensual definition. *Motivation and Emotion*, 5(3), 263–291. <https://doi.org/10.1007/BF00993889>

Motivation matters...

Intelligence

GPA (grade point average)



Self-efficacy is the extent or strength of one's belief in one's own ability to complete tasks and reach goals.

Richardson, M., Abraham, C. & Bond, R. (2012). Psychological correlates of university students' academic performance: A systematic review and meta-analysis. *Psychological Bulletin*, 138, 353-387.

Motivation theories

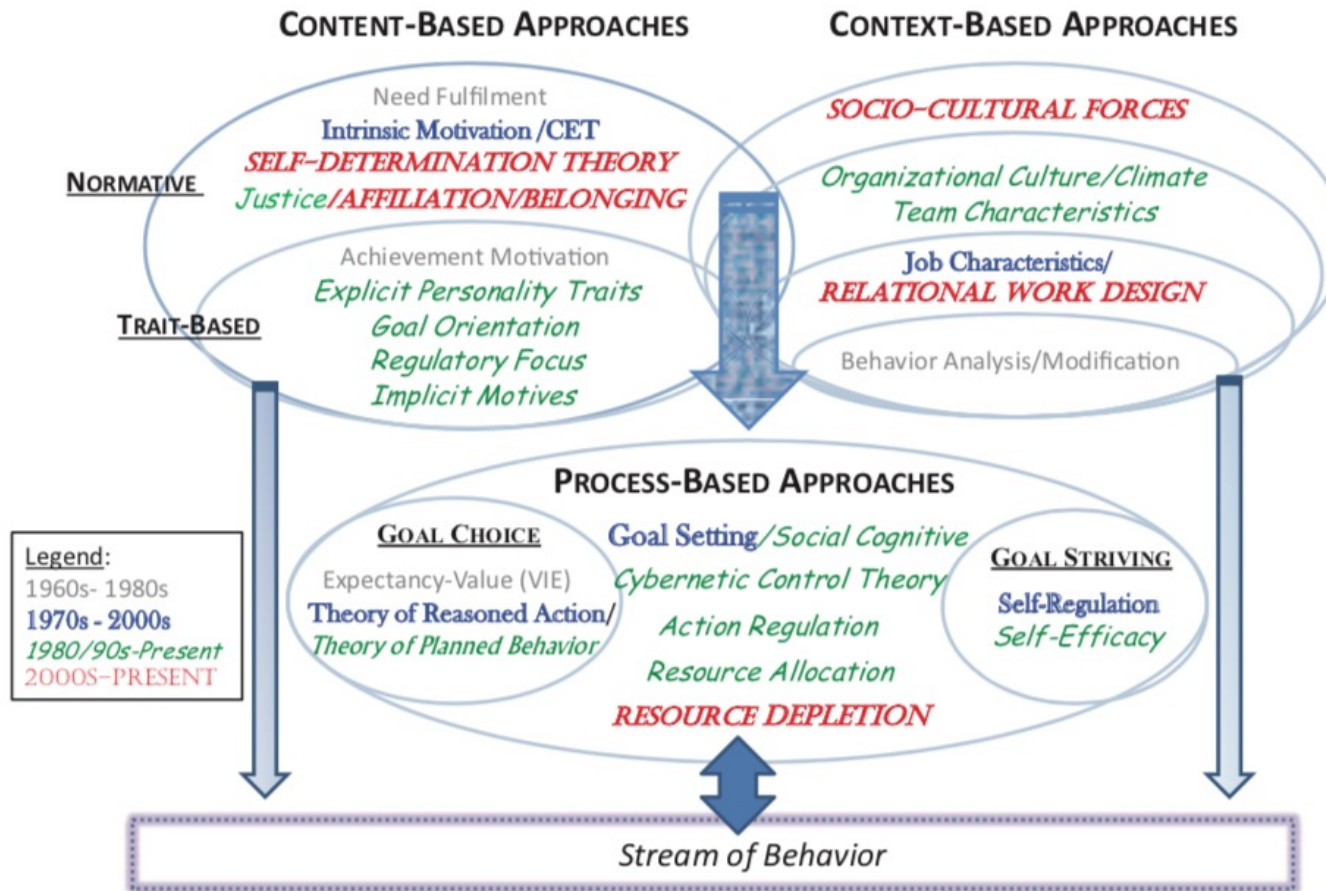


Figure 2. A heuristic meta-framework of work motivation construct networks and representative theories.

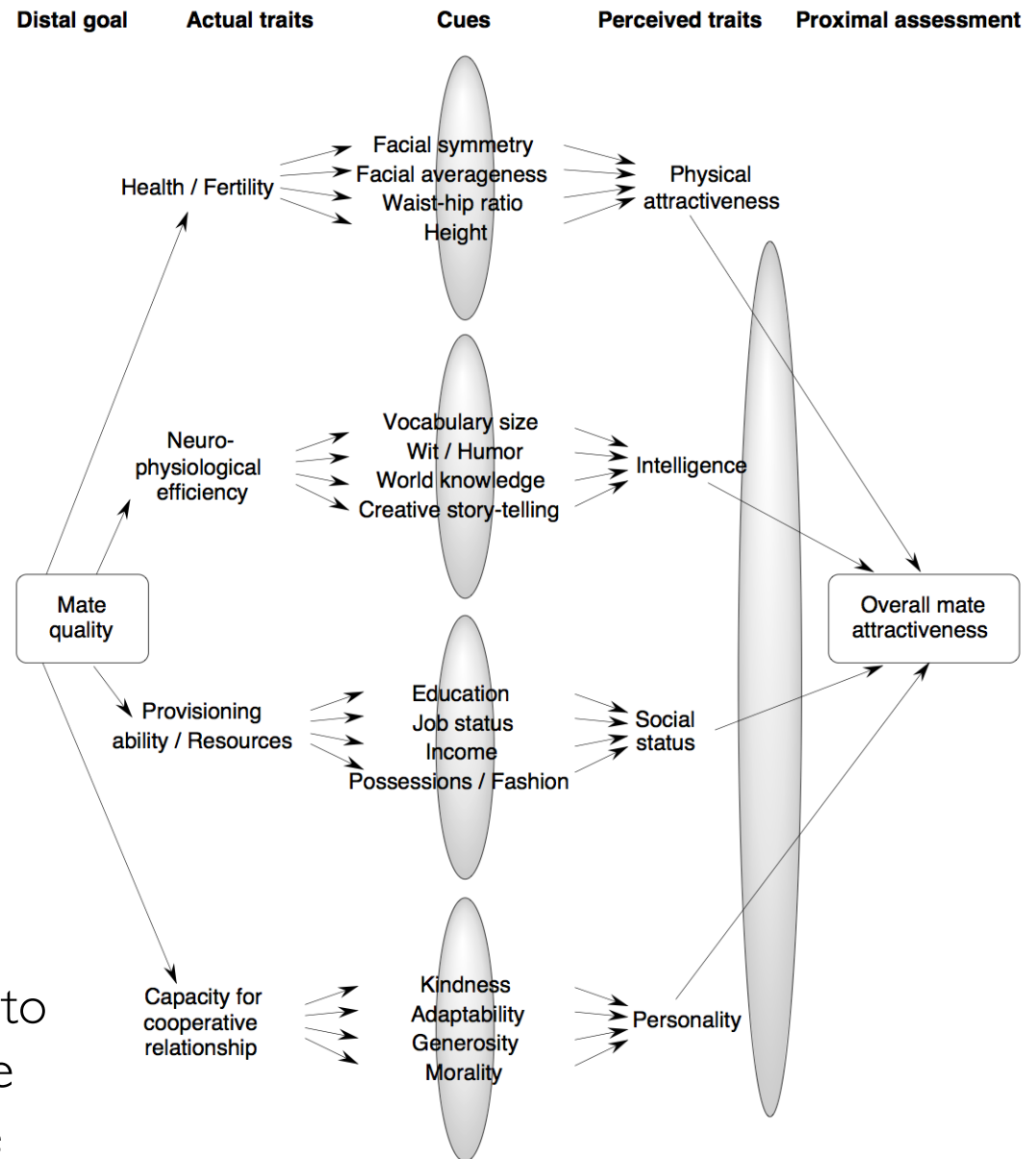
There are many theories of motivation in psychology; the figure above depicts 3 main classes (content-, context-, and process-based) that have been applied to work psychology – these categories are representative of psychological theorising in general

Motivation theories

Content-based Approaches

“Research on facial and bodily symmetry has been especially convincing in this regard, as new meta-analyses show that bilateral symmetry not only influences sexual attractiveness, but is also heritable, and is a good indicator of health, disease resistance and overall fitness. Symmetry reveals not just a healthy body, but good genes”.

Evolutionary theories focus on the adaptive significance of particular traits to propose why certain cues are attractive and thus motivate organisms to pursue specific goals or objects (e.g., mates)

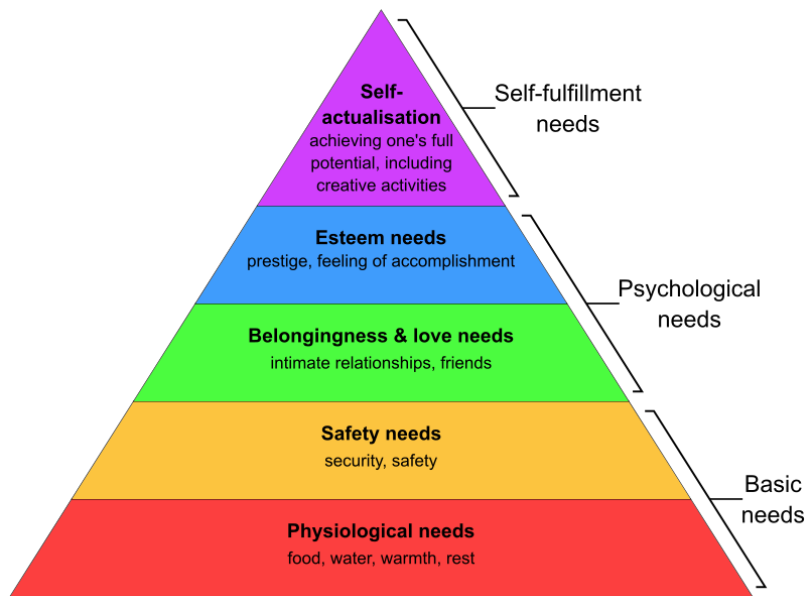


A lens model for assessing distal mate quality (simultaneous integration)

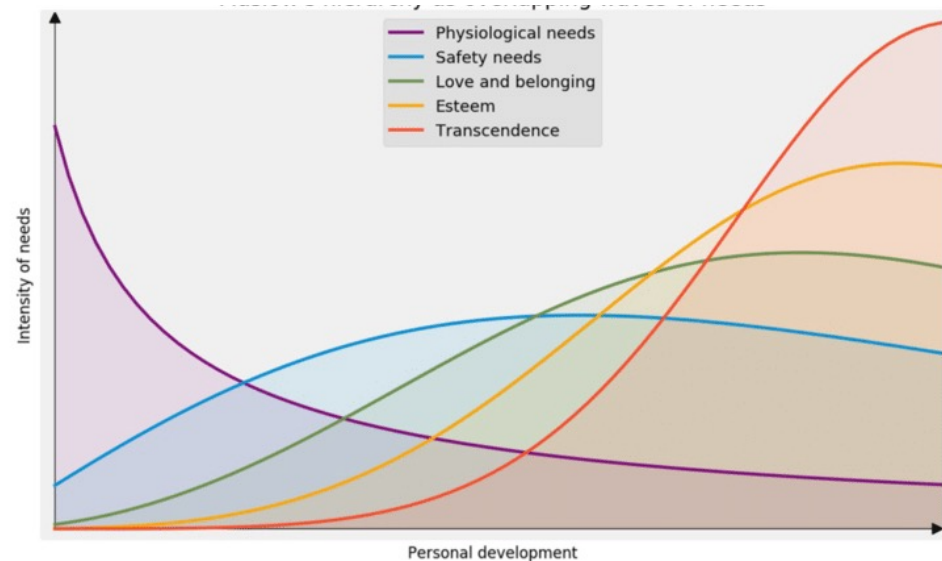
Motivation theories

Content-based Approaches

“There are at least five sets of goals, which we may call basic needs. (...). These basic goals are related to each other, being arranged in a hierarchy of prepotency. This means that the most prepotent goal will monopolize consciousness and will tend of itself to organize the recruitment of the various capacities of the organism. The less prepotent needs are minimized, even forgotten or denied. But when a need is fairly well satisfied, the next prepotent ('higher') need emerges, in turn to dominate the conscious life and to serve as the center of organization of behavior, since gratified needs are not active motivators”



Typical depiction of Maslow's hierarchy of motives



Alternative depiction of the hierarchy of motives, that suggests that that one motive does not need to be completely fulfilled to initiate another.

Motivation theories

Context-based Approaches



“In the past the man has been first, in the future the system must be first.”

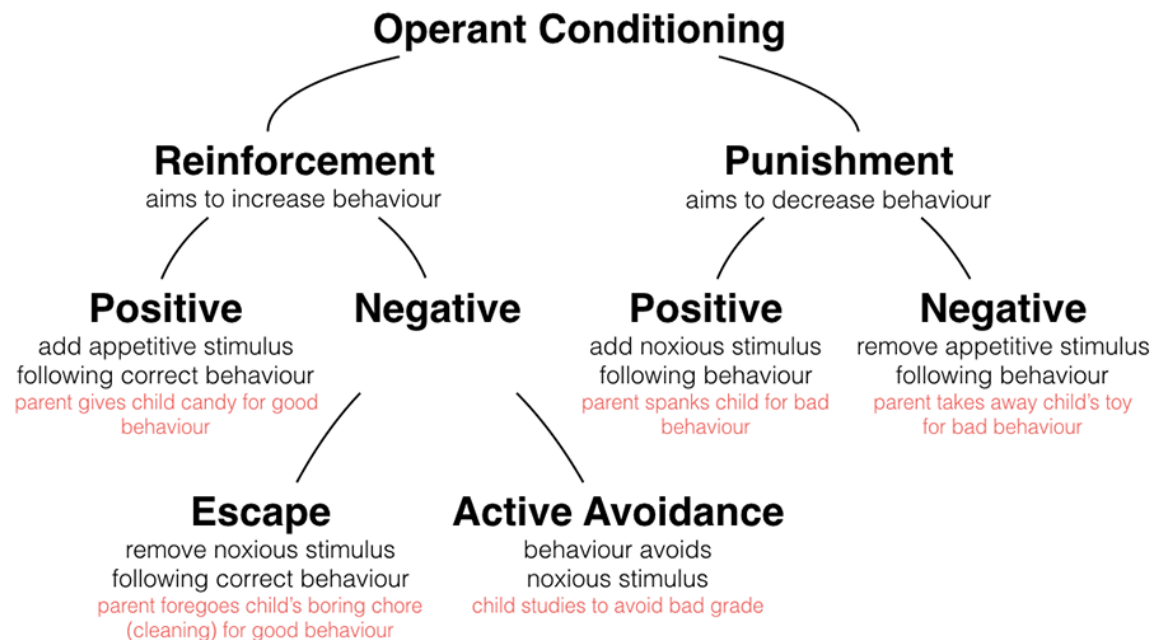
[Frederick W. Taylor](#)

Taylor, F. W. (1911), The principles of scientific management, New York, NY, USA: Harper & Brothers.

Motivation theories

Context-based Approaches

Behaviorist theories explain “motivation” as a response to external stimuli shaped through learning (e.g., classical or operant conditioning). For example, based on classical conditioning behavior is learned through association (e.g., bell → salivation); based on operant conditioning, behavior is shaped by experienced rewards and punishments (see below). Accordingly, external environment guides behavior and “motivation” arises from past reinforcement.



Motivation theories

Empirical arbitration between content and context-based approaches...



Motivation theories

Empirical arbitration between content and context-based approaches...

“The position commonly held by psychologists and sociologists is quite clear: The basic motives are, for the most part, the primary drives -- particularly hunger, thirst, elimination, pain, and sex -- and all other motives, including love or affection, are derived or secondary drives. The mother is associated with the reduction of the primary drives -- particularly hunger, thirst, and pain -- and through learning, affection or love is derived. (...) There can be no question that almost any external stimulus can become a secondary reinforcer if properly associated with tissue-need reduction, but the fact remains that this redundant literature demonstrates unequivocally that such derived drives suffer relatively rapid experimental extinction. Contrariwise, human affection does not extinguish when the mother ceases to have intimate association with the drives in question. Instead, the affectional ties to the mother show a lifelong, unrelenting persistence and, even more surprising, widely expanding generality.”

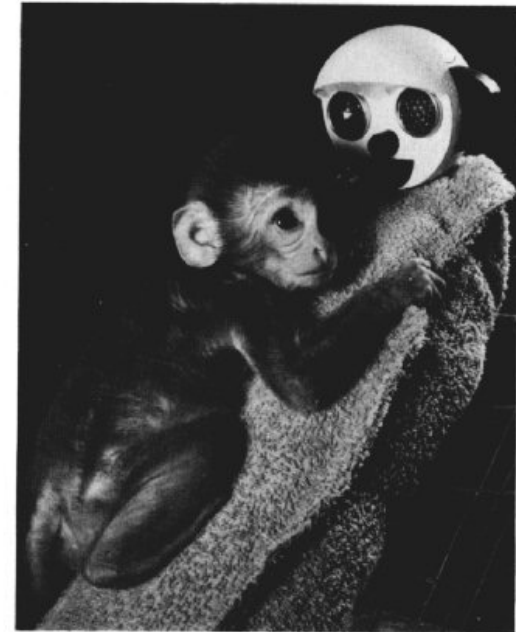


Figure 14. Typical response to cloth mother surrogate in fear test.

Harlow's results emphasise the importance of affective and safety needs (and how these do not need to be derived/learned from primary physiological contingencies), while suggesting that a theory of an hierarchy of needs (cf. Maslow) may be tested through experimentation.

Motivation theories

Process-based Approaches: Self-efficacy

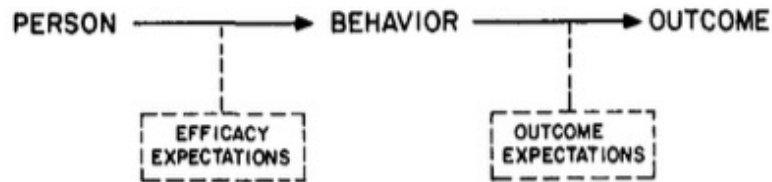


Figure 1. Diagrammatic representation of the difference between efficacy expectations and outcome expectations.

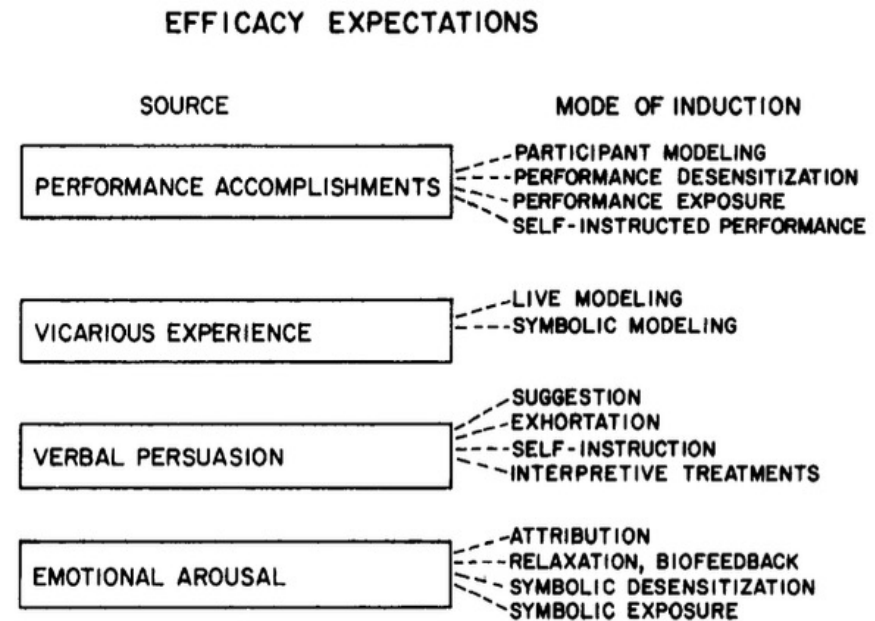
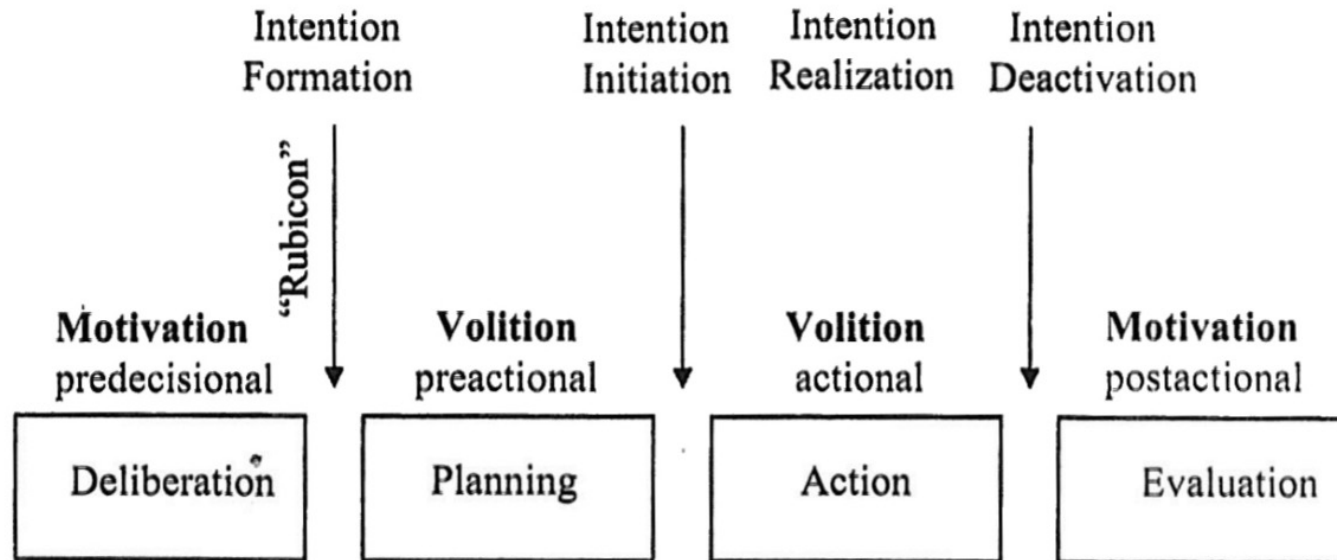


Figure 2. Major sources of efficacy information and the principal sources through which different modes of treatment operate.

Self-efficacy refers to individuals' beliefs in their capabilities to organize and execute the actions required to manage prospective situations. It is conceptualized as a key mechanism in human agency, influencing persistence and emotional reactions in the face of challenges. Research across domains—education, health, sports, work—shows that self-efficacy is a strong predictor of performance and goal attainment. For example, meta-analyses find robust links between self-efficacy beliefs and academic achievement (cf. Richardson et al. 2012, slide 7).

Motivation theories

Process-based Approaches: Rubicon model

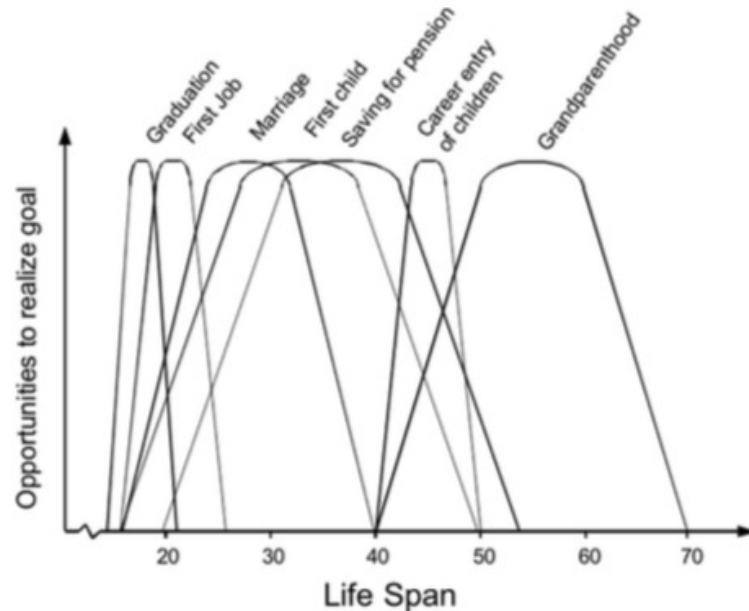


“The four phases of the Rubicon model differ in terms of the tasks that have to be addressed before the individual can move on to the next phase. Motivational episodes are thus broken into natural and seemingly independent phases. Critically, the Rubicon model seeks to explain both goal setting and goal striving.”

The Rubicon model distinguishes between motivational and volitional phases and emphasizes the power of planning in bridging intentions and action. Empirical studies support this distinction by showing that forming implementation intentions—specific if-then plans—increases goal attainment across domains (e.g., work, health, academic performance).

Motivation theories

Process-based Approaches: Motivational theory of life-span development



Control Processes Involved in Goal Engagement and in Goal Disengagement

Control process	Description
Goal engagement	
1. Selective primary control	Invest behavior, effort, time, skills, persistence
2. Selective secondary control	Volitional self-regulation to enhance motivational commitment to chosen goal. Avoid distractions, enhance perceived control, imagine positive incentives of goal attainment
3. Compensatory primary control	Seek out help or unusual means or ways to overcome shortfall of primary control resources
Goal disengagement	
1. Distancing from goal	Devalue chosen goal, downgrade importance of goal, enhance value of conflicting goals
2. Self-protection	Protect motivational resources from negative implications of failure or loss experiences

Primary control refers to efforts aimed at changing the external environment to fit one’s goals or desires (e.g., working harder to achieve a promotion); **secondary control** refers to adjusting one’s internal states—such as expectations, goals, or interpretations—to align with environmental constraints (e.g., accepting a missed opportunity and finding meaning in it).

Developmental theories see motivation as an adaptive process of engagement and disengagement with different goals that are age- and context appropriate. These theories aim to describe the selection of specific control strategies (e.g., primary vs. secondary control) and how this may change across the life span (secondary control may be more prevalent later in life when there is less potential for exacting change in the world due to physical and cognitive decline)

Heckhausen, J., Wrosch, C., & Schulz, R. (2010). A motivational theory of life-span development. *Psychological Review*, 117(1), 32–60. <http://doi.org/10.1037/a0017668>

Summary

- **Free will:** Most psychological theories adopt a compatibilist stance, suggesting that motivation arises from internal desires that can coexist with causal determinism.
- **Definitions:** Motivation can be understood through various lenses—phenomenological, physiological, directional—each highlighting different experiential, implementation, and functional aspects – these dimensions are differentially represented in various motivation theories.
- **Content approaches:** Focus on *what* motivates behavior, including biological drives (e.g., evolutionary fitness, Maslow’s needs).
- **Context approaches:** Emphasize *environmental* factors, such as reinforcement, and social or cultural conditioning.
- **Process approaches:** Explore *how* motivation unfolds, including belief formation, goal-setting, and developmental changes across the life span.
- **Outstanding issues:** There is no single model that is able to integrate all aspects of motivation, most theories however acknowledge both internal drives and environmental influences, and understand motivation as a dynamic, life-long process that shifts with context and capacity.