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Self-Determination Theory



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Synonyms

Empowerment; Individual Autonomy; Motivation

Definition

Self-determination theory (SDT; Ryan and Deci 2017) has become a highly influential theory of human motivation and well-being with a vast body of research evidence. It offers a blueprint for understanding the motivational basis of personality and social behavior, and of the relation of basic psychological needs to well-being, psychological flourishing, and high quality of life. Diverging from most historical and contemporary approaches to human motivation that have treated motivation as a unitary concept – that is, one has more or less motivation – SDT instead has focused on varied forms of motivation (from

autonomous to controlled motivation) to predict outcomes such as performance, engagement, vitality, and psychological health. The theory in particular distinguishes between autonomous and controlled motivations. To be autonomous involves acting with a full sense of volition, endorsement, and choice, whereas, to be controlled involves feeling externally pressured or compelled to behave whether by the promise of a contingent reward, fear of punishment, ego-involvement, or other external factors. Hundreds of studies have shown that when people are autonomously motivated, either by *intrinsic motivation* or *well-internalized* (thus autonomous) forms of extrinsic motivation they display higher interest, excitement, vitality, and confidence, resulting in better performance, creativity, persistence, and overall well-being (Ryan and Deci 2017).

SDT also postulates that there are *basic psychological needs* that universally must be satisfied for people to experience ongoing growth, integrity, and wellness, namely needs for *competence*, *autonomy*, and *relatedness*. Although there are a vast number of human desires, goals and preferences, autonomy, competence, and relatedness stand out as essential nutrients for these outcomes. Social environments that support the satisfaction of these psychological needs promote capacities for self-regulation and social relationships, and well-being whereas those that thwart satisfaction of these needs lead to a broad array of more impoverished individual and interpersonal outcomes.

Description

SDT begins with an organismic metatheory, which refers to a set of philosophical assumptions about the nature of people. The theory assumes that human beings are inherently active, with liberally evolved tendencies toward assimilation, seeking and mastering challenges, and the integration of new experiences. Within SDT, the basic psychological process through which this occurs is referred to as organismic integration, which is a manifestation of people's proactive, synthetic nature to become more differentiated and coherent in functioning.

The theory recognizes that, although these organizational processes are inherent to human nature, they do not develop fully or operate effectively without certain psychological nutrients. Specifically, effective functioning of organismic integration requires the ongoing satisfaction of basic psychological needs for competence, autonomy, and relatedness. Supports for these need satisfactions in the social context (both developmentally and situationally) facilitate growth, engagement, effectiveness, and well-being, whereas contexts that interfere with or thwart the satisfaction of these needs often catalyze defense, rigidity, and various forms of ill-being and psychopathology (Ryan et al. 2016).

As an organismic framework, SDT thus embraces both the assumption of inherent integrative or growth tendencies and an interest in the elements within environments that support them. In addition, it embraces empirical research strategies for identifying these propensities and their supports, at every level of analysis from physiology and neuropsychology to macro-social structures such as economic and political systems (Ryan et al. 2019). Although self-determination theory (SDT) is a macro-theory, it is comprised of six mini-theories that have been developed at different times to explain a circumscribed set of motivational phenomena emerging from programs of research in laboratory and

applied settings. The first of the mini-theories is *cognitive evaluation theory*, which was formulated to explain the effects of social contexts on

intrinsic motivation. The second, *organismic integration theory*, explains phenomena concerned with the internalization and integration of extrinsic motivation. The third is *causality orientations theory*, a theory of general individual differences in motivational orientations. The fourth, *basic psychological needs theory*, addresses the issue of psychological well-being and serves to tie together the first three mini-theories. The fifth is *goal content theory*, which is concerned with the “what” or content of people's life goals and lifestyles, and the processes through which these develop. Finally, the sixth is *relationships motivation theory*, which concerns the processes that promote high-quality close relationships. Although the six mini-theories together do not constitute the whole of SDT, most phenomena elucidated within this theoretical tradition can be located within one of these mini-theories (Ryan and Deci 2019). We now address these in turn.

Cognitive evaluation theory (CET) explains a set of phenomena related to intrinsic motivation and the social contextual conditions that undermine, maintain, or enhance it. Intrinsic motivation refers to the inherent motivation that energizes people to do things they find interesting and enjoyable. A prototypical example of intrinsic motivation is the play of young children; play is spontaneous, and although it spawns competencies, it is done for its own sake. When people are intrinsically motivated for an activity, they find it interesting, derive personal rewards directly from doing it, and are fully willing to do it even if they receive no other reward or consequence.

Intrinsic motivation is the prototype of self-determination, which is why the SDT research began with the study of intrinsic motivation. Such research has found, for example, that extrinsic rewards – the so-called “carrot and stick” approach to motivation – as well as deadlines, evaluations, and close supervision tend to diminish people's intrinsic motivation for the activity (e.g., Deci et al. 1999), whereas providing choice and acknowledging people's feelings tend to enhance their intrinsic motivation. SDT explains that external events such as rewards, punishments, and evaluations can undermine people's feelings of autonomy, whereas choice and

acknowledgments tend to support their autonomy satisfaction, thus affecting their intrinsic motivation accordingly. Other research has revealed that positive feedback typically enhances intrinsic motivation, whereas negative feedback tends to undermine it. This is explained in terms of the basic psychological need for competence: positive feedback satisfies the competence need, whereas negative feedback thwarts it, thus having, respectively, the positive and negative effects on intrinsic motivation. Still, other research has shown that the more intrinsically motivated people are, the better they learn conceptual material, the more effective they are in solving problems, the more creative their work, and the more well-being they display. Together, this research highlights the critical roles played by supports for competence and autonomy in fostering intrinsic motivation, which is critical in education, arts, sport, and many other domains. For a review of CET research see Ryan and Deci (2017); for research on the neurological bases of intrinsic motivation see Di Domenico and Ryan (2017) and Reeve and Lee (2019).

Organismic integration theory (OIT) is a theory about the various types of extrinsic motivation that result from different degrees of internalization and transformation of the value and regulation of a behavior. OIT provides a taxonomy of different sources or types of extrinsic motivations, each of which has its own characteristics and dynamics, but which also vary systematically in their relative autonomy, with distinct advantages being associated with the more autonomous forms of extrinsic motivation.

The classic type of extrinsic motivation, based in the “carrot and stick” view of motivation, is *external regulation*, which involves an externally imposed contingency between a behavior and some external consequence. External regulation is the least autonomous type of extrinsic motivation. At times, extrinsic motivation is partially internalized – it is taken in by people but not really accepted as their own – and in such cases, the behavior is regulated through *introjected regulation*. When acting from introjects, a person is engaged in behavior either to avoid guilt or disapproval or to gain esteem or approval. Introjected

actions are thus relatively low in autonomy, because, even though the motivation is internal, it is still pressuring or controlling in nature. Still more autonomous is *identified regulation*, which is the motivation that results when a person has internalized and personally identified with the value of an action. Here actions are consciously endorsed as worthwhile and important. Further, identifications can remain relatively isolated from other aspects of oneself, or they can be well assimilated with other values, needs, feelings, beliefs, and regulations. The regulation in this latter case is called *integrated regulation*, and it represents the most autonomous form of extrinsic motivation. It is important to note that when extrinsic motivation has been fully internalized and integrated, it does not become intrinsic motivation but remains an autonomous form of extrinsic motivation. These two types of motivation do share many characteristics and qualities, but intrinsic motivation is based in being interested in the activity, whereas integrated regulation is based in believing that the activity is personally important for one’s own values and goals. OIT also addresses the development of more autonomous forms of regulation of people’s emotions, with the most autonomous types involving awareness of the feelings and choice about whether and how to express or withhold emotions and emotion energized behaviors (Roth et al. 2019). SDT also recognizes that most intentional behaviors are multiply motivated (e.g., see Litalien et al. 2017). People can, for example, be simultaneously intrinsically motivated and identified for some actions, or both externally regulated and introjected, etc. Thus, SDT researchers have devised various ways of calculating overall relative autonomy scores (e.g., see Sheldon et al. 2017). There is also a growing interest in person-centered analyses in which profiles of motivation are generated (e.g., Wang et al. 2017).

An abundance of research has confirmed (1) that social contexts that are more supportive of satisfaction of the psychological needs for autonomy, competence, and relatedness will conduce toward deeper internalization and more autonomous regulation and (2) that the more autonomous types of extrinsic motivation are

associated with more positive performance and wellness outcomes than are the less autonomous types (see Ryan and Deci 2000).

Causality orientations theory (COT) describes individual differences in people's tendencies to orient toward environments and regulate their behaviors based on their general orientations toward the three loci of causality associated with the three causality orientations (Ryan and Deci 2017). The stronger one's autonomy orientation, the more the person acts out of interest in and valuing of what he or she is doing, has an internal perceived locus of causality, and acts in an autonomous way across domains and contexts. The controlled orientation indexes a person's orienting toward external or introjected cues; behaving to attain rewards, having feelings of self-worth, or approval from others; perceiving the locus of causality to be external; and being generally controlled across situations. The impersonal orientation is characterized by anxiety concerning incompetence or unlovability, often involves orienting toward cues that seem to confirm their fears, entails a high degree of amotivation, and has an impersonal perceived locus of causality associated with feeling like they have no control over outcomes that seem important to them. COT maintains that all people have each orientation to some degree, and also that different contexts can prime one or another of the orientations, making it more salient.

Research indicates that the autonomy orientation is strongly related to more effective performance and to a stronger sense of psychological well-being and health; that the controlled orientation is related to more rigidity and defensiveness and to a lower wellness; and that the impersonal orientation is associated with the poorest outcomes, including significant ill-being.

The orientations are viewed as social-developmental outcomes. To the degree that individuals have been in environments that support the satisfaction of autonomy, competence, and relatedness needs, they are likely to have a high level of the autonomy orientation; to the degree that they have been in environments that thwart autonomy, they are likely to have a high level of the controlled orientation; and to the degree that

they have been in environments that thwart all basic needs, they are likely to develop a higher impersonal orientation.

Basic psychological needs theory (BPNT) highlights and elaborates the nature of evolved psychological needs and their relations to psychological health and well-being. BPNT formalized the propositions that (1) there are three basic psychological needs – the needs for competence, autonomy, and relatedness, which are universal and essential for the psychological well-being and optimal functioning of all people – and (2) satisfaction versus frustration of these needs will impact wellness invariantly, so (3) social contexts that support the three needs will promote well-being and effectiveness, whereas those that interfere with the needs will promote ill-being and less effective functioning. The theory further argues that all three needs are essential for wellness such that if any are thwarted, there will be discernible negative consequences. Because basic needs are universal aspects of functioning, BPNT has prompted research across developmental epochs and across many cultural settings. Such research has been facilitated by the development of cross-culturally validated instruments (e.g., see Chen et al. 2015).

The specification of BPNT also completed the functional specification of what need satisfaction ultimately supports, when combined with CET, OIT, and COT. Need satisfaction predicts greater a) intrinsic motivation and perceived competence (CET); b) internalization and integration of regulatory processes, including emotion regulation (OIT), and c) development of the autonomous motivational orientations (COT). As well, BPNT shows how these motivations, regulations, and orientations in turn result in greater wellness, vitality, and healthier functioning.

Goal contents theory (GCT) began with a distinction between two categories of aspirations or life goals that were empirically derived: intrinsic goals such as personal growth, close relationships, and community involvement that are gratifying in their own right because they satisfy the basic psychological needs, and extrinsic aspirations such as accumulation of wealth, attractive appearance, and popularity or fame that are less directly

satisfying of basic needs and seem to gain their importance from an underlying anxiety resulting from developmental thwarting of the basic needs. The theory was first formulated in terms of people's individual differences in the degree to which they place importance on the goals in each of these two categories (Kasser and Ryan 1996) and the relations of these differences in goal importance to types of motivation and to psychological health and well-being. It was then extended to encompass the prompting of the different goals in specific situations (Vansteenkiste et al. 2004), with intrinsic goal framing being more positively related to learning and performance than was extrinsic goal framing because of the goals differentially affording basic need satisfactions. More recently, researchers have shown that the intrinsic/extrinsic aspiration distinction is dimensional, and that additionally life goals such as self-expression (an intrinsic goal) and power (an extrinsic goal) can be arrayed along it (e.g., Martela et al. 2019).

Relationships motivation theory (RMT) concerns interactions with others and the degree to which they represent supports for our needs and enhance our sense of self. RMT research has shown that the need for relatedness inclines people to develop satisfying relationships, but that high-quality attachments and relationship satisfaction also require satisfaction of the autonomy need within the relationship (La Guardia et al. 2000). Importantly, SDT distinguishes between autonomy and independence, such that people could easily be autonomously dependent on their partners. Further, studies have shown that there tends to be mutuality of autonomy and autonomy support within close relationships such that giving autonomy support to one's partner provides need satisfaction to the giver as well as to the receiver (Deci et al. 2006). RMT also addresses the phenomena of altruism, by highlighting the evolved satisfactions that volitional helping behaviors can engender in both helper and recipient (e.g., Martela and Ryan 2019; Weinstein and Ryan 2010).

Other topics of interest have emerged as SDT has expanded both theoretically and empirically in its examination of personality integration,

effective functioning, and wellness. For example, exploration of the role of *mindfulness* as a foundation for being autonomously motivated has led to refinement in both measurement and theorizing about awareness and its relation to motivation and coping (e.g., Weinstein et al. 2009). Study of the social environmental factors that facilitate intrinsic motivation led to a theory and measurement strategy regarding *vitality* (Ryan and Deci 2008), which is an indicator of both mental and physical wellness. Research on vitality in turn uncovered the remarkably positive impact on well-being of *experiencing nature*, showing how exposure to natural environments can enhance energy (e.g., Ryan et al. 2010). Research within the SDT tradition has also examined two different types of personal *passions*, with individuals being obsessively or harmoniously passionate as a function of internalization processes (Vallerand 2015). And cross-cultural tests of SDT have confirmed the importance of the basic psychological needs across many diverse cultures and have led to an increased understanding of how economic, political, and cultural forms impact autonomy and thereby psychological wellness (e.g., Chirkov et al. 2003; Yu et al. 2017). Research on well-being has also led to a clearer understanding of *hedonic* and *eudaimonic well-being* and forms of living (Ryan et al. 2013). These are just a few examples of how the generative framework of SDT has enhanced research on a variety of processes that interest scholars in multiple disciplines.

Applications of SDT can be found across a wide range of domains such as education, work and organizations, religion, sport and physical activity, health care, parenting, video games and technology, and psychopathology and psychotherapy among others. Across these domains, research has looked at how autonomy-supportive environments can enhance persistence, performance, social functioning, and wellness. Further, relational and competence supports are seen as interactive with supports for autonomy in fostering engagement and value within domains of activity. This body of research in applied areas has led to a greater understanding of how to promote maintained, volitional motivation, active

engagement, high-quality performance, and psychological wellness in people's lives while also highlighting the costs of controlling social contexts and need thwarting strategies and that interfere with the wellness SDT describes as being fully functioning. More information and resources on SDT can be found online at www.selfdeterminationtheory.org.

Cross-References

- ▶ [Autonomy](#)
- ▶ [Competence](#)
- ▶ [Eudaimonic Well-Being](#)
- ▶ [Intrinsic Motivation](#)
- ▶ [Mindfulness](#)
- ▶ [Relatedness](#)

References

- Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van der Kaap-Deeder, J., et al. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion, 39*, 216–236.
- Chirkov, V., Ryan, R. M., Kim, Y., & Kaplan, U. (2003). Differentiating autonomy from individualism and independence: A self-determination theory perspective on internalization of cultural orientations and well-being. *Journal of Personality and Social Psychology, 84*, 97–110.
- Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin, 125*, 627–668.
- Deci, E. L., La Guardia, J. G., Moller, A. C., Scheiner, M. J., & Ryan, R. M. (2006). On the benefits of giving as well as receiving autonomy support: Mutuality in close friendships. *Personality and Social Psychology Bulletin, 32*, 313–327.
- Di Domenico, S. I., & Ryan, R. M. (2017). The emerging neuroscience of intrinsic motivation: A new frontier in self-determination research. *Frontiers in Human Neuroscience, 11*, 145.
- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin, 22*, 280–287.
- La Guardia, J. G., Ryan, R. M., Couchman, C. E., & Deci, E. L. (2000). Within-person variation in security of attachment: A self-determination theory perspective on attachment, need fulfillment, and well-being. *Journal of Personality and Social Psychology, 79*, 367–384.
- Litalien, D., Morin, A. J. S., Gagné, M., Vallerand, R. J., Losier, G. F., & Ryan, R. M. (2017). Evidence of a continuum structure of academic self-determination: A two-study test using a bifactor-ESEM representation of academic motivation. *Contemporary Educational Psychology, 51*, 67–82.
- Martela, F., & Ryan, R. M. (2019). Distinguishing between basic psychological needs and basic wellness enhancers: The case of beneficence as a candidate psychological need. *Motivation and Emotion*. Advance online publication. <https://doi.org/10.1007/s11031-019-09800-x>.
- Martela, F., Bradshaw, E. L., & Ryan, R. M. (2019). Expanding the map of intrinsic and extrinsic aspirations using network analysis and multidimensional scaling: Examining four new aspirations. *Frontiers in Psychology, 10*. <https://doi.org/10.3389/fpsyg.2019.02174>.
- Reeve, J., & Lee, W. (2019). Motivational neuroscience. In R. M. Ryan (Ed.), *The Oxford handbook of motivation* (2nd ed., pp. 355–372). New York: Oxford University Press.
- Roth, G., Vansteenkiste, M., & Ryan, R. M. (2019). Integrative emotion regulation: Process and development from a self-determination theory perspective. *Development and Psychopathology, 31*(3), 945–956.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68–78.
- Ryan, R. M., & Deci, E. L. (2008). From ego depletion to vitality: Theory and findings concerning the facilitation of energy available to the self. *Social and Personality Psychology Compass, 2*(2), 702–717.
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. New York: Guilford Publishing.
- Ryan, R. M., & Deci, E. L. (2019). Brick by brick: The origins, development, and future of self-determination theory. In A. J. Elliot (Ed.), *Advances in motivation science* (Vol. 6, pp. 111–156). Cambridge, MA: Elsevier Inc.
- Ryan, R. M., Weinstein, N., Bernstein, J., Brown, K. W., Mistretta, L., & Gagne, M. (2010). Vitalizing effects of being outdoors and in nature. *Journal of Environmental Psychology, 30*(2), 159–168.
- Ryan, R. M., Curren, R. R., & Deci, E. L. (2013). What humans need: Flourishing in Aristotelian philosophy and self-determination theory. In A. S. Waterman (Ed.), *The best within us: Positive psychology perspectives on eudaimonic functioning* (pp. 57–75). Washington, DC: American Psychological Association Books.
- Ryan, R. M., Deci, E. L., & Vansteenkiste, M. (2016). Autonomy and autonomy disturbances in self-development and psychopathology: Research on motivation, attachment, and clinical process. In D. Cicchetti (Ed.), *Developmental psychopathology: Vol. 1 theory*

- and method* (3rd ed., pp. 385–438). Hoboken: John Wiley & Sons Inc.
- Ryan, R. M., Ryan, W. S., Di Domenico, S. I., & Deci, E. L. (2019). The nature and the conditions of human autonomy and flourishing: Self-determination theory and basic psychological needs. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (2nd ed., pp. 89–110). New York: Oxford University Press.
- Sheldon, K. M., Osin, E. N., Gordeeva, T. O., Suchkov, D. D., & Sychev, O. A. (2017). Evaluating the dimensionality of self-determination theory's relative autonomy continuum. *Personality and Social Psychology Bulletin*, 43(9), 1215–1238.
- Vallerand, R. J. (2015). *The psychology of passion*. New York: Oxford University Press.
- Vansteenkiste, M., Simons, J., Lens, W., Sheldon, K. M., & Deci, E. L. (2004). Motivating learning, performance, and persistence: The synergistic effects of intrinsic goal contents and autonomy-supportive contexts. *Journal of Personality and Social Psychology*, 87, 246–260.
- Wang, C. K. J., Liu, W. C., Nie, Y., Chye, Y. L. S., Lim, B. S. C., Liem, G. A., et al. (2017). Latent profile analysis of students' motivation and outcomes in mathematics: An organismic integration theory perspective. *Heliyon*, 3(5), e00308.
- Weinstein, N., & Ryan, R. M. (2010). When helping helps: Autonomous motivation for prosocial behavior and its influence on well-being for the helper and recipient. *Journal of Personality and Social Psychology*, 98, 222–244.
- Weinstein, N., Brown, K. W., & Ryan, R. M. (2009). A multi-method examination of the effects of mindfulness on stress attribution, coping, and emotional well-being. *Journal of Research in Personality*, 43(3), 374–385.
- Yu, S., Levesque-Bristol, C., & Maeda, Y. (2017). General need for autonomy and subjective Well-being: A meta-analysis of studies in the US and East Asia. *Journal of Happiness Studies*, 1–20.