

Intrinsic and Extrinsic Motivation and Self-Determination Theory

Carol Sansone and Yun Tang

University of Utah

Email:

[carol.sansone@psych.utah.edu](mailto:carol.sansone@psych.utah.edu)

[yun.tang@psych.utah.edu](mailto:yun.tang@psych.utah.edu)

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The target article by Ryan, et al. (in press) does a masterful job of reviewing the contributions and impact of Self-Determination Theory (SDT). We highlight in particular the tremendous influence that SDT, and particularly Cognitive-Evaluation Theory (CET), has had in shaping the notions of “intrinsic” and “extrinsic” motivation. Initial work on the overjustification effect (e.g., Lepper, et al., 1973) suggested that a reward decreased motivation to engage with a previously intrinsically motivated activity when it caused people to attribute their motivation to the reward. CET went further to shift the focus from locus of the cause to what the reward means in terms of competence and autonomy. Deci and Ryan proposed that when rewards are contingent on achieving some performance standard, the effect of receiving the reward depended on whether indicators of competence (which would enhance intrinsic motivation) or attempts to control (which would detract from intrinsic motivation) were more salient. CET thus helped to emphasize that effects of rewards on motivation cannot be predicted without considering how particular reward structures influenced these underlying processes.

A second major contribution was distinguishing between different conceptions of extrinsic motivation. Extrinsic motivation was often defined in terms of external sources (e.g., rewards, deadlines, competition). SDT suggested in contrast that extrinsic motivation could originate from inside the person. The theory helped emphasize the importance of what people felt, identifying the feeling of pressure (which could be internally created and applied) as key to creating negative effects. They also suggest that extrinsic motivation can contribute to well-being and performance when coming from values with which the person identifies or which are fully integrated within the person, even though the person was not intrinsically motivated. Resting on an underlying

continuum of autonomy, SDT thus redefines a singular notion of extrinsic motivation into distinctions between whether it is internal or external to the person, and whether it is likely to be associated with negative or positive effects on well-being.

These two major contributions reflect the person-centered approach that the target article notes, emphasizing the importance of the person's construals and affective experiences, connected to the core needs that the broader SDT describes. The theory also sheds light on the influence of need-supportive social environment and education on people's motivation as well as self-regulation of behavior. These contributions helped to create the foundations for numerous studies and wide-ranging applications, providing a valuable heuristic framework to guide studies in experimental settings as well as in education, health and work settings, among many others.

SDT thus has contributed much to the field and how we think about extrinsic and intrinsic motivation. The integration of these insights with other theoretical perspectives and fields of application raises interesting open questions and potential future directions. We identify three:

- SDT (particularly as illustrated in Figure 1) places different types of motivation along a single continuum that reflects greater or less autonomy. Other kinds of relationships are also possible. For example, in some cases individuals could simultaneously experience both intrinsic motivation and extrinsic motivations that are not adjacent on the continuum (e.g., obsessive passions (Vallerand, et al., 2003)). Alternatively, extrinsic and intrinsic motivation could be sequentially related (e.g., a reward could lead to efforts to make activity more interesting (Sansone & Smith, 2000)), or there could be a dialectic where individuals cycle between needs to feel autonomous and needs to feel connected in ways that diminish self (e.g., experience of awe (Sturm et al., 2020)). While only illustrative,

these possibilities (and the potential implications for choice, persistence and effort) suggest the importance of looking at motivation within persons over time at a more granular level, something that is becoming more possible with the advent of newer technologies and analytic strategies (e.g., dynamic systems (Marchand & Hilpert, 2017)).

- As noted in the context of performance contingent rewards (Harackiewicz, et al., 1984), expectancy-value theories (e.g., Atkinson, 1964; Pekrun, 2006; Wigfield & Eccles, 2000), interest theories (e.g., Renninger & Hidi, 2015) and others, value and importance has a significant and distinct impact on motivation. One determining factor of the impact of value or importance is the degree to which it is experienced as pressure, but increased value and importance could also impact attention, strategies, and responses to challenges (e.g. Higgins, 2006). It is possible that these variables may be more proximal to outcomes, and so future research would benefit by focusing on how value and other components of engagement might vary with autonomy across and within persons over time, as well as the relationship to health and well-being.
- These points lead to the last point: the importance of distinguishing between autonomy as cause and autonomy as an outcome. This point incorporates the importance of looking at what people are actually doing while engaged with an activity, and the extent to which they are in match, experience fit with their goals, regulatory focus and the environment. When congruent, individuals experience more enjoyment (Freitas & Higgins, 2002; Kruglanski, et al., 2018; Sansone, et al., 1989) and feel like they belong (e.g., Stephens, et al., 2014). Autonomy can be the result of these experiences (e.g., Sheldon & Elliot, 1999), or a marker of fit, but may not be what motivated engagement. This distinction can be particularly important when considering interventions to promote motivation and

well-being, because it suggests different starting points (Hidi & Harackiewicz, 2000; Harackiewicz & Priniski, 2018).

In sum, SDT has had tremendous impact on the field of human motivation, providing a compelling framework for connecting human needs and motives with intrinsic and extrinsic motivation and psychological well-being. It is far-ranging and far-reaching, and its substantial impact will continue to be felt for many years.

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