



On When and How Identity Value Impacts Self-Control Decisions

Asael Y. Sklar and Kentaro Fujita

Department of Psychology, The Ohio State University, Columbus, Ohio

In their target article, Elliot T. Berkman, Jordan L. Livingston, and Lauren E. Kahn (this issue) describe the identity-value model (IVM), an important contribution to research on self-control—the prioritization of global over conflicting local motivational concerns (e.g., Ainslie, 1975; Fujita, 2011; Rachlin, 2000; Sklar, Rim, & Fujita, *in press*). Drawing from quantitative modeling research in decision science, IVM suggests that self-control can be viewed as a case of subjective valuation-based decision making. Rather than posit the operation of competing “hot” impulsive versus “cold” inhibition processes, IVM instead proposes that self-control can be understood as a general decision-process that compares the subjective value of two options and selects the option of greatest value. Important to note, the calculation of these subjective values can incorporate inputs from multiple sources, which must be integrated into a summary value for each choice option. Berkman and colleagues focus on one source of value—namely, identity—which they propose plays a critical yet overlooked role in self-control. They review an impressive body of evidence that highlight the insights IVM can provide as a model of self-control decision making.

As researchers in the interface between motivation and decision sciences ourselves, we are excited by IVM’s explanatory and generative potential as a cumulative theoretical framework. The work serves to spotlight the kinds of transformative insights revealed when one integrates research from motivation (i.e., identity concerns) and decision sciences (i.e., subjective value-integration models of choice). Our commentary elaborates on IVM, exploring ways in which identity value can impact self-control that were not explicitly addressed by Berkman et al. We also discuss IVM in the context of another theoretical framework (*viz.*, construal-level theory (CLT); Trope & Liberman, 2010) to understand more systematically the antecedents of linking identity to self-control decisions and to explore the critical psychological mechanisms involved in this link.

Identity Value and the Identification Versus Resolution of Self-Control Conflicts

Research suggests that successful self-control requires at least two component processes (e.g., Myrseth & Fishbach, 2009). First, people must recognize that one of the choice options (i.e., the local temptation) is inconsistent with their broader goals and objectives. Research suggests that many self-control failures occur not due to a failure to inhibit one’s behavior but rather a failure to recognize in the first place that a given

decision or action undermines the attainment of desired end-states (Coelho do Vale, Pieters, & Zeelenberg, 2008; Myrseth & Fishbach, 2009). The failure to identify the self-control conflict inherent in a given context is thus an important “breakdown” point. Second, after people identify a choice context as one that entails self-control conflict, they must successfully resolve the decision conflict by engaging in the appropriate psychological and behavioral processes to prioritize their global goals and values over local temptations. It is this latter stage of self-control that receives much of the attention in the literature (e.g., Ainslie, 1975; Baumeister & Heatherton, 1996; Fujita, 2011; Mischel, Shoda, & Rodriguez, 1989).

Thus, it is not that surprising that much of Berkman et al.’s description of IVM focuses on the contribution of identity concerns for self-control conflict resolution. Yet, identity concerns may also play a critical role in self-control conflict identification. Heightened awareness of their identities may also make people more sensitive to behaviors that are inconsistent with or threaten those identities. Some indirect support for this assertion can be found in research on hypocrisy within the dissonance literature. Highlighting a discrepancy between an expressed value and actual behavior, for example, can promote greater subsequent value-behavior consistency (Stone & Fernandez, 2008; Stone, Wiegand, Cooper, & Aronson, 1997). More direct evidence can be found in work by Touré-Tillery and Fishbach (2012, 2015). They found that the serial position of a decision—whether it is made at the beginning, middle, or end of a sequence of decisions—influences its apparent diagnosticity for the self-concept. Decisions made at the beginning or end of a sequence are perceived to be more indicative of one’s identity than those made in the middle of a sequence. Providing evidence that identity concerns can impact conflict identification, Touré-Tillery and Fishbach (2012, 2015) found that participants exhibited poorer self-control for decisions made in the middle relative to the beginning or end of a sequence, that is, the conditions under which decisions are most weakly linked to identity. Thus identity concerns may be relevant not only for self-control conflict resolution as suggested by IVM but also for self-control conflict identification.

When and How Does Identity Become Relevant to Decisions?

How does identity become linked to a specific decision? In their target article, Berkman et al. suggest that when an accessible

aspect of identity is deemed relevant to one or more choice options, it confers positive value to that option due to the inherent positive value of most people's identities. IVM leaves unaddressed, however, the question of how identity becomes tied to a given set of choice options. That is, when and by what mechanism do people link their identities to a particular decision? These are important questions because, as Berkman et al. note, IVM suggests that it is the activation of these identity concerns that represents the prime candidate for self-control intervention.

A key insight of IVM is that identity considerations enhance self-control by bringing to mind the broader implication of people's decisions and actions. Eating cookies does not simply represent a "tasty treat" for the hungry dieter; instead, it represents a self-threat. By implicating the self, identity value considerations effectively raise the stakes of the decision and increase the subjective value of self-control.

Narrow Acts versus Broad Patterns

The notion that considering the broader implications of a decision can benefit self-control can also be found in other work (e.g. Fujita, 2011; Fujita & Carnevale, 2012; Kudadjie-Gyamfi & Rachlin, 1996; Myrseth & Fishbach, 2009; Pick-Alony, Liberman, & Trope, 2014; Rachlin, 1995, 2000; Read, Loewenstein, & Kalyanaraman, 1999; Sheldon & Fishbach, 2015). Much of this work draws on the idea that perceiving decisions as part of a pattern rather than as an isolated act facilitates thinking about the broader implications of the choice for the decision maker (Rachlin, 1995, 2000). Echoing William James, Rachlin (2000) noted that the decision to drink does not make one a drunkard; it is the pattern of choosing to drink that reveals one's drinking problem. Empirical research suggests that experimental manipulations that facilitate perceiving decisions as part of a broader pattern enhances self-control. One common approach is choice bracketing—the segmenting of a series of decisions into broad versus narrow sets. Making a series of decisions as a part of a broader bracket versus making each individual decision narrowly one at a time has been shown to promote self-control (Kudadjie-Gyamfi & Rachlin, 1996; Myrseth & Fishbach, 2009; Pick-Alony et al., 2014; Read et al., 1999; Sheldon & Fishbach, 2015).

Psychologically, considering the implications of a decision for one's identity requires a broadening of mental horizons beyond the immediate here and now. Broad versus narrow bracketing accomplishes this mental expansion by forcing participants to make decisions in an interconnected manner, allowing them to recognize the implications of one decision for others like it. How people accomplish this mental broadening without external inducements like brackets is the focus of CLT (Trope & Liberman, 2010).

Construal-Level Theory

CLT provides a theoretical framework for understanding how people expand and contract their mental horizons. A challenge to thinking about events that are removed from direct experience, that is, those that are psychologically distant, is the lack of reliable detailed specifics. CLT proposes that people address

this challenge by engaging in abstraction (or high-level construal). Abstraction refers to the treatment of distinct entities in a manner that extracts the global and essential features that render those entities substitutable. For example, although apples and oranges have distinct surface-level features, treating both interchangeably as instances of fruit requires focusing on their core essentials. By focusing on the features that are common across all manifestations of an event, people can mentally represent distant events despite the absence of specifics. As reliable information about specifics becomes more available with increasing proximity, people engage in low-level construal). By highlighting those local and idiosyncratic features that render an event distinct, people can tailor their behavior to the unique demands at hand. In short, CLT proposes that high-level versus low-level construal represent the cognitive means by which people expand and contract mental scope.

The treatment of any given decision context as a substitute for any other, as is encouraged by high-level construal, is akin to perceiving a decision as part of a pattern. Accordingly, one should expect high-level relative to low-level construal to be associated with greater self-control. As Berkman et al. briefly review in the target article, an extensive body of research supports this assertion (for other reviews, see Fujita, 2008; Fujita & Carnevale, 2012; Kalkstein, Fujita, & Trope, in press).

More broadly, high-level relative to low-level construal promotes important changes to the self-concept, leading people to think about their behavior in broader, dispositional terms, that is, in terms of their broader identities (Wakslak, Nussbaum, Liberman, & Trope, 2008). As additional indications of identity-value consideration in decision making, high-level versus low-level construal also promotes value-behavior consistency (Eyal, Sagristano, Trope, Liberman, & Chaiken, 2009; Torelli & Kaikati, 2009) and sensitivity to the norms of valued social groups (Ledgerwood & Callahan, 2012). Emerging work in our lab, moreover, suggests that when engaged in high-level versus low-level construal, people more closely cognitively associate their long-term goals with their working self-concept—again highlighting the linking of identity to goal-based decisions at-hand (Sklar, Fujita, & Trope, in preparation). Collectively, this work suggests that high-level construal is an important antecedent for connecting identity considerations to one's decisions. Given that identity is a mental representation derived via abstracting a sense of self across time and contexts, one might even argue that high-level construal is a *necessary condition* for any identity value-based decision making.

That high-level construal promotes the linking of identity considerations to decision making is an important insight because a host of variables have been shown to influence whether people engage in high-level versus low-level construal. CLT suggests that psychological distance along any dimension—whether it be time, space, social distance, or probability—should increase the weighting of identity concerns and promote self-control. Indeed, numerous studies support this proposition. Research on intertemporal choice, for example, documents how temporal distance relative to proximity promotes self-control (e.g., Loewenstein, Read, & Baumeister, 2003). Similar findings have been shown for spatial (e.g., Vohs & Heatherton, 2000) and social (e.g., Pronin, Olivola, & Kennedy, 2008) distance relative to proximity. In addition,

numerous other variables—including some very mundane ones—influence construal level. An incomplete list of these variables include visual perspective (e.g., Kross & Ayduk, 2011; Libby, Shaeffer, & Eibach, 2009), elevation (Ayduk et al., 2000; Slepián, Masicampo, & Ambady, 2015), various forms of communication media (e.g., Lee, Deng, Unnava, & Fujita, 2014; Rim et al., 2015), ambient lighting (Steidle, Werth, & Hanke, 2011), temperature (Ijzerman & Semin, 2009), positive mood (e.g., Clore & Gasper, 2002), processing fluency (Alter & Oppenheimer, 2008), and self-affirmation (e.g., Wakslak & Trope, 2009). Any and all factors that promote high-level relative to low-level construal should systematically enhance linking identity concerns to decision making. In this way, CLT may serve as an organizing framework for understanding the *when* of IVM.

The Role of Abstraction Beyond Identity Value

High-level construal promotes the treatment of a decision-making event as an example of a broader category. This promotes sensitivity to the broader implications of one's decisions, which include identity value. Note, however, that the abstraction processes entailed in high-level construal may play other key roles in self-control. As Berkman et al. describe, many decision science models of self-control stress the computation of subjective value. The calculation of these values must integrate inputs that vary widely on a number of differing dimensions. In comparing proverbial apples to oranges, people must find a way that allows them to compute a “common currency” or metric with which to evaluate them (e.g., Levy & Glimcher, 2011, 2012). Behavioral research has identified abstraction as a key cognitive component in making such calculations, particularly when attributes are nonalignable, that is, when choice option features are not directly comparable on the same dimension (Johnson, 1989). Experimental studies have demonstrated that high-level relative to low-level construal promotes the integration of value across nonalignable choice options (Malkoc, Zauberaman, & Ulu, 2005). As self-control decisions typically require integrating features that are not directly comparable (including trade-offs between reward magnitude and timing; Ainslie, 1975; Loewenstein et al., 2003; Mischel et al., 1989), abstraction is likely to be a necessary part of any full value calculation process.

Value, as Berkman et al. note, is a difficult construct to measure directly, which leads researchers to rely more on indirect evidence when attempting to link it to other psychological constructs. In the target article, the authors show an abundance of evidence that the ventromedial prefrontal cortex is implicated in both the processing of identity-related information and the computation of value. This shared neural substrate provides indirect evidence for the link between identity and value. Similar evidence supports the link between high-level construal and these two concepts. That is, research suggests that high-level (relative to low-level) construal activates similar brain regions as those implicated in identity-based processing and computation of value (Baetens, Ma, Steen, & Van Overwalle, 2013; Spunt & Adolphs, 2014; Spunt, Kemmerer, & Adolphs, 2016; Stillman et al., 2017). Thus, high-level construal appears to share the same neural basis as value and identity,

providing further evidence for the central role of abstraction in linking identity with value.

Conclusion

In this commentary, we explored some of the ways that identity value may promote self-control, highlighting self-control conflict identification as an alternative route that may have been overlooked by the target article's authors. We also examined the question of when people engage in identity value-based choice—a question to which IVM is largely silent. We suggest that existing theoretical models—in particular, CLT—provide a systematic framework for organizing and understanding the antecedents to identity value-based self-control. In particular, we focused on high-level construal—or abstraction—and elaborated on its role as a necessary condition for linking decisions to one's identity. We also proposed that high-level construal plays roles in the self-control process beyond identity value, that is, in facilitating the computation of value across nonalignable choice features. By expanding and extending IVM, we hope to highlight how readily it connects to existing frameworks and serves to advance cumulative science. We look forward to continued interdisciplinary dialogue as people use the theory to guide predictions and organize empirical findings.

Funding

This research was funded in part by grants from the John Templeton Foundation's Philosophy and Science of Self-Control Project (#15462) and the National Science Foundation (#1626733). The opinions expressed here are our own and do not necessarily reflect the views of either funding organization.

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