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Journal of Consumer Psychology 19 (2009) 129–133

**Journal of
CONSUMER
PSYCHOLOGY**

Research Dialogue

The function of value in self-regulation[☆]

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Available online 6 March 2009

Abstract

This commentary argues for a functional perspective of the value–engagement relationship, proposing that evaluation determines engagement. I compare this causal direction—from value to engagement—to regulatory engagement theory, which proposes that engagement determines evaluation. I demonstrate the functional view in self-control research, which finds that people overcome obstacles for goal pursuit, including low probabilities of success, by increasing the value of adhering to an overriding goal. I further suggest that whereas both causal directions—from value to engagement and from engagement to value—are theoretically plausible, empirical studies should provide better ways to distinguish between these conceptually different underlying models.

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Regulatory engagement theory's (Higgins, 2006) basic premise is that the strength of engagement or involvement in goal pursuit influences the extremity of value estimates. In their target article, Higgins and Scholer (2009) apply this principle to the process of value creation. They demonstrate that through increased involvement in pursuing a goal, marketers can increase a person's strength of attraction to positive objects as well as her strength of repulsion to negative objects. Higgins and Scholer further state three factors that increase engagement: (a) posing obstacles, (b) making an outcome more likely, and (c) increasing regulatory fit. Each of these factors influences the extremity of value judgments by increasing people's involvement in a task.

Higgins and Scholer's model is rich and thought provoking and raises many important points of which I chose to address only one, namely, the causal direction of the value–engagement relationship. Whereas in Higgins and Scholer's model, value is the outcome of engagement, I explore an alternative model, which refers to value as the cause of engagement. These two pathways may not be mutually exclusive and likely there are circumstances in which each operates. However by comparing these alternative models I can critically discuss existing findings and examine when each conceptual model provides a better match to the existing evidence.

Specifically, according to regulatory engagement theory, several factors influence engagement, which then influences value. Below is an illustration of the causal direction:

- **Obstacles/High-Likelihoods/Fit → Engagement → Evaluation**

According to the alternative model, these same factors increase value, which then acts to increase engagement, thus, the causal direction is as follows:

- **Obstacles/High-Likelihoods/Fit → Evaluation → Engagement**

Value estimates can thus play an instrumental role in motivating action. This (alternative) perspective can complement regulatory engagement theory but should nonetheless be clearly distinguished from it since it proposes a different process of value creation. The advantage of an instrumental perspective is that it describes the function of value. In this alternative view, changes in valuation can help people prepare to act, particularly when they anticipate obstacles or self-control problems in adhering to their goals.

Consistent with the assumption that value is instrumental in causing engagement, research on implicit evaluations documents how liking for a goal often acts as a self-regulatory device designed to increase goal adherence (Ferguson & Bargh, 2004; Markman & Brendl, 2000). According to this research, the basic function of value is to cue action toward (or away from) goal states. Specifically, individuals approach positively valued goal states and avoid negatively valued goal states, and their

[☆] An invited commentary for Journal of Consumer Psychology.

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evaluations direct their actions. As an example of the function of value, Custers and Aarts (2005) find that implicitly associating activities, such as solving puzzles, with positive (versus neutral or negative) affective evaluations increases people's desire to engage in these activities. Value in this line of work is a cue to get involved in goal-related activity; when it is positive, engagement increases and when it is negative engagement decreases.

This view of value is conceptually different from the one regulatory engagement theory proposes (Higgins, 2006). This theory poses a similar causal direction as what early work on dissonance (Festinger, 1957) suggested: from action to evaluation. According to these (otherwise quite distinct) perspectives value is an outcome rather than a cause. In other words, in contrast to the research on "liking is for doing," in regulatory engagement theory, "doing is for liking;" hence, the direction of the causal effect is reversed. When value is the cause ("liking is for doing"), it is the mechanism by which goals motivate action, but when value is an outcome ("doing is for liking"), value has no further role in motivating action (though it may nevertheless influence actions that follows).

Moreover, if value causes engagement, people may actively bolster or undermine the value of certain goal states in order to influence their motivation toward and away from these states. That is, evaluation can serve as a self-control function. In what follows, I elaborate on this assumption. I suggest that value can be functional, that it motivates engagement, and, in particular, that it prepares individuals to act when they face a self-control problem. I apply this analysis of the function of evaluation to (a) the effects of obstacles and (b) the experienced likelihood of attainment, and I suggest that the observed relationships between obstacles and value and between likelihoods and value can often reflect the self-control function of value in motivating action. Thus, the increase in value of approached states and the decrease in value of avoided states prepare the self-regulatory system to act when obstacles are anticipated or when likelihoods signal a need to act.

Overcoming obstacles

Higgins and Scholer first demonstrate the link between engagement and value by exploring how obstacles or challenges influence evaluation. Regulatory engagement theory posits that because obstacles require an increase in engagement, they increase the extremity of value judgments. That is, the direction of causality is from perceived obstacles to increased engagement, which in turn leads to more extreme evaluation:

- *Perceived obstacles* → *Engagement* → *Evaluation*

An alternative way to view the obstacle–value link would assume that the increase in the subjective value of a goal state helps people adhere to this goal in the face of an obstacle. That is, obstacles increase value, which in turn increases engagement:

- *Perceived obstacles* → *Evaluation* → *Engagement*

In light of Higgins and Scholer's "engagement to value" link, what is the evidence for the "value to engagement" link? One

source of support for the "value to engagement" link comes from research on self-control, which documents changes in evaluation as an instrumental self-control response directed at motivating action. Self-control problems arise when people need to overcome immediate obstacles in order to adhere to important, long-term goals that offer delayed benefits (Baumeister, Heatherton, & Tice, 1994; Fishbach, Friedman, & Kruglanski, 2003; Mischel, Shoda, & Rodriguez, 1989). For example, keeping a job may require getting up early, staying in shape requires following an exercising regime, and successful relationships require not having extramarital affairs. The obstacles that individuals need to overcome can be part of executing the activity (e.g., it is difficult to study) or are posed by temptations that offer short-term benefits (e.g., it is difficult to study when one's favorite television show is on). In response to these obstacles, people exercise self-control. Specifically, according to counteractive control theory, people overcome obstacles by increasing the subjective value of goal states relative to the value of giving in to temptations (Fishbach & Converse, *in press*; Fishbach & Trope, 2005; Myrseth, Fishbach, & Trope, 2009; Trope & Fishbach, 2000).

This instrumental self-control process involves asymmetric changes in value. When people anticipate a self-control problem, they increase the motivational strength of adhering to a goal by boosting the value of goal actions and dampening the value of temptations. Thus, although the presence of obstacles directly decreases the likelihood of adhering to goals, indirectly, it triggers the operation of self-control, which acts to increase the likelihood of adhering to the goal. These direct and indirect influences cancel out each other, such that self-control operations counteract the effect obstacles have on the likelihood of meeting one's long-term goals.

As an example of changes in valuation as a self-control strategy, Fishbach and Trope (2005) offered participants the opportunity to take a diagnostic test of their reading skills, and they assessed the participants' evaluation of the test before taking the test or even committing themselves to taking it. Fishbach and Trope manipulated the expected obstacle of taking the test by describing it as either boring or interesting. They found that participants evaluated the boring test more positively than the interesting test—an evaluative pattern that serves to motivate one to take the test. Importantly, this pattern was reversed in the presence of social monitoring. When participants worked under supervision, they evaluated the boring test less favorably than the interesting one. When external means of control are in place (e.g., a supervisor), individuals do not need to exercise self-control to secure the completion of a diagnostic test, and therefore presenting obstacles decreased the value of the test. These results further support the assumption that the increase in the value of goal-related actions is instrumental in motivating completion of this action. If goal engagement is imposed by an external force, there is no increase in the value of goal-related objects.

In another study that tested changes in evaluation as a self-control strategy, Myrseth et al. (2009) examined the evaluation of goal objects and devaluation of interfering temptation objects. Specifically, they offered health-conscious individuals

a choice between health bars (i.e., goal item) and unhealthy chocolate bars (i.e., temptation). The majority of the participants chose the health bars, allowing the researchers to assess the value of these items before and after making a choice that reflects success at self-control. The researchers found that those who rated the choice options prior to choosing boosted their valuation of health bars while dampening their valuation of chocolates. If this evaluative pattern is functional in motivating healthy choices, it should be attenuated after making the choice, since after the tempting option is no longer available, evaluating it more negatively is not instrumental. If, however, this evaluative pattern reflects post-choice dissonance processes meant to justify past engagement, the difference in value between the chosen and forgone options should increase after making a choice. In support of a self-control (value to engagement) analysis, and contrary to the alternative (engagement to value) prediction, among participants who evaluated the choice alternatives after making a choice, the value of the health bar decreased and the value of the chocolate bar increased, such that they were no longer significantly different from each other. In dissonance terms, this study documents a reverse spreading of alternatives (Aronson, 1997; Brehm, 1956), namely that the gap between the ratings of the goal-option and the tempting-option is greater before rather than after choosing. This pattern is again congruent with the assumption that value estimates can motivate choice rather than result from the choice process.

Regulatory engagement theory predicts that involvement increases the intensity of both attraction and repulsion, depending on the initial status of the object as goal-helping versus goal-interfering. Similarly, a self-control analysis suggests that the need to engage increases the intensity of positive and negative value estimates. Specifically, research on counteractive control documents an asymmetric pattern of evaluation: the value of goal-states increases while the value of interfering temptations decreases.

But notably, an instrumental, self-control analysis of value assumes an increase in the repulsion toward a stimulus does not necessarily imply the stimulus had a-priori negative value, which becomes more extreme with engagement. Rather, the motivation to disengage with positive stimuli that one would otherwise approach (vs. negative stimuli one would avoid) can render the stimuli more negative as engagement becomes more likely. For example, when cigarettes are available, those who desire to quit smoking will increase their repulsion to motivate disengagement more than those who do not desire to smoke. In a study that demonstrates this point, Fishbach and Shah (2006) find that people automatically push away tempting stimuli when they hold an overriding goal; for example, they respond faster with pushing (vs. pulling) to words representing leisure activity when they hold a conflicting academic goal. The strength of the repulsion in turn, increases with attractiveness of the temptation and importance of the goal. In this and similar studies, the status of two positive activities (e.g., study and leisure) as goal versus temptation determines whether their value increases or decreases once engagement is more likely.

Likelihood

Regulatory engagement theory posits that high subjective likelihoods provide a “green light” to act, thereby increasing the extremity of value estimates. In contrast, low subjective likelihoods provide a “red light” to stop, making value estimates less extreme. When people experience high likelihood, future outcomes feel real, and as a result, they engage themselves fully in what they are doing. In this sense, expectancy has a special status in motivation. This view is distinctively different from the traditional view of motivation as a function of two factors—value and expectancy—that similarly influence the strength of motivation (Atkinson, 1964; Vroom, 1964).

This approach to motivation is new and promising. And as before, I propose to consider an alternative direction of influence between the following variables: likelihood estimates, motivation, and value. Regulatory engagement theory addresses situations in which high likelihood increases engagement, which in turn influences value estimates—the “engagement to value” link:

- **High likelihood → Engagement → Evaluation**

An instrumental view of value would suggest that likelihood influences value, which in turn acts to prepare the individual to engage in the goal—the “value to engagement” link:

- **High likelihood → Evaluation → Engagement**

Whereas both links are theoretically plausible, the “value to engagement” link renders changes in evaluation instrumental for the self-regulation process. Thus, likelihoods may increase value because the person would like to prepare her response to the upcoming opportunity to act.

This instrumental analysis of subjective likelihoods has further implications for predicting what causes greater engagement: low likelihood and people’s attempt to increase their chances, or high likelihood, which signals a need to take close actions. Whereas engagement theory proposes high likelihoods have greater impact, I would like to suggest that there are circumstances in which low (vs. high) likelihoods have greater impact on evaluations because they signal a greater need to act.

Specifically, an underlying assumption in classic motivation theory (e.g., Atkinson, 1964) and regulatory engagement theory is that subjective likelihood positively affects motivation; a self-control view would suggest that low subjective likelihood can also increase motivation by signaling that there is an obstacle one has to overcome to secure successful goal attainment. When the likelihood of a positive outcome is low, people may thus increase their efforts in achieving an outcome, in particular when the outcome is crucial for their well being. For example, students would work harder when they believe the likelihood of passing an exam is low (vs. high) and their degree depends on them passing the exam. In a recent study that tested whether likelihoods can act as obstacles, increasing motivation when they are low, Zhang and Fishbach (2009) presented participants with information about their likelihood of getting

high cholesterol based on their gender. Regardless of their actual gender (males or females), half of them read that their gender was at higher risk while the rest read that their gender was at lower risk. These authors found that those who believed their gender was at higher risk, that is, their likelihood of staying healthy was lower, generated more optimistic expectations of maintaining good health and further planned to take more preventive measures, such as exercising, than those who believed their gender was at lower risk; hence, their likelihood of staying healthy was higher. It appears that at least when it comes to the goal of maintaining good health, learning that expectancy of success is low induces greater engagement than learning that expectancy of success is high. In engagement theory terms, low probability provides a stronger “green light” to act. The result is that people increase their evaluation of the importance of good health and take more extreme measures to improve their health when the likelihood of success is low.

Goals and circumstances exist for which high subjective likelihoods increase motivation to act on a goal; for example, when deciding whether to develop an artistic talent, high expectancy of success most likely increases engagement more than low expectancy, and it will reflect in value estimates. But at other times, low likelihoods have a similar effect as obstacles on evaluation, and to the extent that a person believes she can overcome the low likelihood or obstacle by increasing efforts, the person will increase engagement when the expectancy of success is low. Whether low versus high likelihoods are a stronger signal to act may further depend on the type of the goal: prevention (e.g., maintaining good health) versus promotion (e.g., developing an artistic talent; Higgins, 1997). Possibly, prevention goals induce greater motivation when likelihood of success is low and promotion goals increase motivation when likelihood is high.

Concluding remarks: on value and motivation

Regulatory engagement theory examines the relationship between value and motivation to act, suggesting that engagement affects value. In this commentary, I propose an instrumental approach to study this relationship according to which value estimates are functional and influence the motivation to act, in particular, when individuals face a self-control problem.

I do not claim this is the only way to view the value–engagement relationship. In fact, Higgins (2006) already noted that there is some evidence, as well as good reason, to assume that both pathways are viable under different conditions. Clearly situations may exist in which the direction of the causal effect is such that one’s motivation to act influences one’s value estimates, as regulatory engagement theory proposes. These situations are demonstrated when research finds that overcoming the resistance to do something unpleasant strengthens engagement first and then increases the positivity of related actions. These situations further appear in early work on dissonance reduction (Festinger, 1957), which finds that people reduce dissonance by changing their attitude toward the goal states by making these states appear more positive.

It is further clear that evaluations that follow from engagement can also be seen as “functional” because they serve a sense making function. But this function is different than the motivating function discussed by self-control research. Specifically, in contrast with the “sense making” function of evaluations, research on “liking is for doing” (e.g., Ferguson & Bargh, 2004) and overcoming temptations (Fishbach & Trope, 2005) attest that evaluations are instrumental when they direct action. This type of instrumentality is conceptually different than the function evaluations serve in promoting cognitive consistency.

The distinction between value as the result of engagement versus value as the cause of engagement, has further implications for exploring interventions or “value increasing” techniques in consumer research. If value is the result of engagement, the most effective way to influence value is by increasing consumers’ engagement. If however, value causes engagement, the most effective way to influence value is by making consumer feel that engagement is under threat and requires extra preparation and effort. By exploring the direction of influence researchers cannot only improve our understanding of the relationship between value and engagement but are further able to design value-increasing strategies that would be more effective.

This distinction also bears consequences for understanding existing research findings, and more research is required in order to clearly distinguish between evaluations as a cause versus an outcome. As an illustration for the ambiguity in existing evidence, consider reactance theory’s (Brehm, 1966; Brehm & Brehm, 1981) assumption that the value of forbidden actions increases: the “forbidden fruit” effect. In previous research it is unclear whether the increase in value in the presence of forbidding agents serves to energize actions under more difficult circumstances (Wright & Brehm, 1989); hence, it serves an instrumental function. Or alternatively, the increase in value can be an inference that individuals make based on the increased difficulty of pursuing the actions (i.e., the scarcity principle, Cialdini, 2001). Future research should take more careful measures to develop empirical tests that would distinguish between these different causal models for the links between value and engagement. These empirical tests can complement the theoretical debate presented here.

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