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RESEARCH REVIEW

Three sources of motivation

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Abstract

This article explores three sources of motivation in goal pursuit: obtaining external rewards, obtaining internal rewards, and maintaining a positive self-concept. First, when people pursue a goal to obtain an external reward (*outcome focus*), their motivation increases as a function of the extent to which they value the reward and their expectancy that achieving the reward is within reach. Second, when people pursue a goal to obtain internal rewards (*process focus* or intrinsic motivation), the degree to which an activity is closely associated or fused with the goal increases their motivation. Third, when people pursue a goal to maintain a positive self-concept (*self-signaling*), their motivation is mainly a function of the extent to which they can make internal attributions for their goal-related actions and their expectations that they will remember these actions. We review empirical evidence from psychology and consumer research in support of each of these sources of motivation and discuss the theoretical and practical implications of distinguishing between these sources.

KEYWORDS
motivation, outcome focus, process focus, self-diagnosticity, self-signaling

1 | INTRODUCTION

What motivates people to pursue goals such as losing weight, helping those in need, and responding to 376 emails? This age-old question has inspired extensive empirical investigations in psychology and consumer research and has produced a number of theories of motivation over the last century. Notably, these theories have advanced different sources of motivation. While some theories have assumed people are motivated by external outcomes (e.g., providing shelter to homeless families), others have posited people are motivated by internal outcomes, such that they are motivated to pursue rather than achieve their goals (e.g., working on building houses). Yet a third category of theories has proposed an important source of people's motivation is their desire to maintain a positive self-concept by signaling to themselves that they possess certain desirable characteristics (e.g., kindness).

The mere definition of a goal can imply different assumptions about the sources of motivation. On the one hand, some theories define a goal as a desired *end* state and examine the extrinsic or outcome-focused motivation to reach this end state or obtain external rewards (e.g., money, food, prizes; Carver & Scheier, 2001; Hull, 1932;

Miller, Galanter, & Pribram, 1960; Mischel, Shoda, & Rodriguez, 1989; Zeigarnik, 1927). According to this perspective, the end state or outcome has a strong influence on motivation—that is, the level of energy mobilized to attain the goal (Lewin, 1935; Wright, 1943). For example, research documents the "goal-gradient" or "goal-looms-larger" effect, a phenomenon whereby people and other animals increase their efforts and persistence as they approach their goal (Brown, 1948; Förster, Higgins, & Idson, 1998; Heath, Larrick, & Wu, 1999; Hull, 1932; Kivetz, Urminsky, & Zheng, 2006; Nunes & Drèze, 2006). In one of the original experiments testing this effect, Hull (1934) found that rats in a straight alley increased their running speed progressively as they moved from the beginning of the alley to the food at the end of the alley (the goal).

On the other hand, some theories define a goal as a desired state (Fishbach & Ferguson, 2007; Kruglanski, 1996), which implies people are motivated to move in a certain direction but not necessarily to reach an end state. Indeed, in studying animal behavior, early motivation researchers noticed that reaching an end state was not the only driver of action (White, 1959; Yerkes & Yerkes, 1929). Even in the absence of an external reward (or end state), animals often persisted at tasks or continued to explore and manipulate their environment (Aronfreed,

1968; Berlyne, 1960). For example, Harlow, Harlow, and Meyer (1950) found that monkeys worked on a puzzle over an extended period for no apparent reward except the activity itself. These findings constituted early demonstrations of intrinsic or process-focused motivation. Indeed, the drive to explore or manipulate the environment, or more broadly the motivation to work toward a goal with no regard for the outcome, stems from a focus on the process of goal pursuit where goal-related activities elicit subjective feelings of enjoyment, interest, and satisfaction (Deci & Ryan, 1985; Sansone & Harackiewicz, 1996; Shah & Kruglanski, 2000). Whereas outcome-focused motivation enables actions aimed at obtaining an external reward, process-focused motivation enables actions that themselves constitute an internal reward (Laran & Janiszewski, 2010; Sansone & Morgan, 1992; Woolley & Fishbach, 2016).

While outcome- and process-focused motivations have received—and continue to receive—considerable attention in the motivation literature, they can only explain a subset of consumer behaviors in the course of goal pursuit. For example, in their investigation of outcome-focused motivation, Kivetz et al. (2006) showed participants who rated songs online to obtain reward certificates increased their effort as they approached the reward (i.e., more frequent visits to the rating site, more songs rated per visit). Research on process-focused motivation would predict participants who are passionate about music—that is, intrinsically motivated—would also be more engaged with the rating task compared to participants who are less passionate about music. However, what would predict participants' likelihood to do the task conscientiously—whether or not they enjoy listening to music? Under what circumstances would they behave unethically by, for example, multitasking during the task, and then rating songs to which they did not actually listen?

To answer these questions, we refer to a third source of motivation: the motivation to maintain a desired image of the self during goal pursuit. Indeed, in the pursuit of their various goals, people are motivated to act not just because of the outcome they might produce, and not just because of how fulfilling the process might be, but also because of what their actions might tell them *about themselves* (i.e., self-signaling; Bodner & Prelec, 1996; Prelec & Bodner, 2003; Savary, Goldsmith, & Dhar, 2015; Touré-Tillery & Fishbach, 2011, 2014). In

particular, when people perceive an action as indicative of the type of person they are (i.e., self-diagnostic), they are more likely to act in ways that allow them to signal desired characteristics to themselves (Dhar & Wertenbroch, 2012; Touré-Tillery & Fishbach, 2012, 2015). For our music raters, research on self-signaling motivation would predict those who perceive the rating task as self-diagnostic would perform it more conscientiously and ethically, in an effort to maintain a positive self-concept.

In the present article, we explore the notion that when people are working toward any goal, their motivation can come from different sources, each associated with a different motivational focus: the outcome, the process, or the self. In Table 1, we summarize our main propositions regarding the sources of motivation associated with each of these three motivational foci. These propositions address the main factors that increase motivation within each source-focus category.

In reviewing the evidence supporting these distinct sources of motivation, we address in more detail the motivation to self-signal, which has received relatively less attention in previous research. We specifically explore two factors that influence self-signaling motivation: attributing goal-related actions to the self and expecting to remember goal-related actions. We conclude with a discussion of the theoretical implications of our analysis for consumer research and the practical implications of these findings for motivation in consumption contexts.

2 | THE OUTCOME: WHAT WILL I ACCOMPLISH?

Classic theories of motivation advance that when people focus on the outcome of goal pursuit, their motivation stems from the attainment of external rewards or outcomes. Two main factors can influence outcome-focused motivation: the attractiveness of the outcome (i.e., value), and the extent to which people expect to reach the outcome (i.e., expectancy; Biner, 1987; Brehm & Self, 1989; Liberman & Förster, 2008; Locke & Latham, 1990; Miller et al., 1960; Mitchell, 1982; Vroom, 1964). According to this expectancy-value model, a consumer would be motivated to accumulate frequent flyer miles from a specific airline as part of a loyalty program if she finds the

TABLE 1 A Summary of the sources of motivation

| Sources of motivation	Motivational focus	Main factors that increase motivation
Obtain external reward(s)	Outcome	• Attractiveness, desirability, importance of the end state, outcome, or reward (value) • Perceived ability, self-efficacy (expectancy) • Instrumentality, effectiveness, expected impact of goal-related actions (expectancy)
Obtain internal reward(s)	Process	Strong association between goal-related actions and goal through (a) repeated pairing, (b) similarity, (c) simultaneous or temporal proximity of actions and goal achievement, and (d) unique action–goal link
Maintain desired self-concept	Self	• Internal attribution of goal-related actions • Expecting to remember goal-related actions

rewards attractive (e.g., free flights to Hawaii) and believes she will be able to accumulate enough miles to obtain these rewards (expectancy). Researchers have generally operationalized the value component of the model in terms of desirability (attractiveness, interestingness) or importance (worthiness). For example, Feather and O'Brien (1987) found that job seeking (motivation) in a sample of young unemployed people was positively correlated with the extent to which they perceived being employed as attractive or desirable (value). In a subsequent survey of university students, Feather (1988) found that students' belief that mathematics is a worthy and interesting subject (value) was positively correlated with their likelihood to enroll in science courses (motivation).

The expectancy component of the model often corresponds to people's perceptions of their ability to produce desired outcomes (i.e., self-efficacy; Bandura, 1977), such that the motivation to work toward a goal will increase as perceived ability increases. For example, Feather's (1988) survey showed that students' self-perception of their ability to do well in mathematics (expectancy) was positively correlated with their likelihood to enroll in science courses (motivation). Expectancy can also refer the extent to which people believe their actions will have a positive impact on reaching a goal, such that people are more motivated to act toward a goal when they expect their actions will be effective (i.e., instrumental; Ferguson & Bargh, 2004; Fishbach, Eyal, & Finkelstein, 2010; Mead, Baumeister, Stillman, Rawn, & Vohs, 2011; Peak, 1955; Rosenberg, 1956). Research shows actions can seem effective if they are strongly associated with a goal in memory (Shah & Kruglanski, 2003). For example, Zhang, Fishbach, and Kruglanski (2007) found that weakening the strength of association between an action (or means) and a goal by increasing the number of goals that can be fulfilled with this particular action decreases the perceived instrumentality of the action, and hence reduces the likelihood that people will choose this course of action. Thus, a product that serves several functions (vs. one function) will appear to consumers as less instrumental for each function. In one of their studies, participants who knew a particular pen could serve as both a writing instrument and a laser pointer (two goals) were less likely to choose to write with this pen than participants who only thought of the pen as a writing instrument (one goal).

Furthermore, actions can seem instrumental to the extent that they appear to reduce the discrepancy between one's current state and the desired end state. For example, the notion that the perceived instrumentality of actions drives fluctuations in motivation can account for the goal-gradient effect, whereby people—and mice—work harder as they get closer to the end state of the goal (Hull, 1932). The rationale is that the perceived marginal impact of actions (i.e., instrumentality) increases with each consecutive action, reaching its highest levels toward the final stages. For example, when pursuing a goal requiring multiple steps such as completing a 25-item shopping list, finding the twenty-second item accomplishes 25% of the remaining progress, the twenty-fourth item accomplishes 50%, the twenty-fifth item accomplishes 100%, and motivation increases accordingly.

Additionally, when people gauge their progress in reference to the initial stages of goal pursuit, their motivation is higher at the beginning due to the greater perceived marginal impact of their actions. In

this case, the first action accomplishes 100% of the progress to date, whereas the second action accomplishes only 50% of the progress to date (Bonezzi, Brendl, & De Angelis, 2011). In one study, Koo and Fishbach (2012) provided participants with a frequent-buyer card ("buy 10 get 1 free") that manipulated goal progress and focus on the beginning versus end stage of goal pursuit. Cards drawing participants' attention to the beginning stages featured three stamps for the low progress condition and seven stamps for high progress. By contrast, cards drawing participants' attention to the end stages featured three punched holes for low progress and seven for high progress (see Figure 1). The authors measured participants' expected pace of progress and motivation to participate in the reward program. Results showed when the endowed progress was low, a focus on accumulated (vs. remaining) progress increased participants' perceptions that their next purchase would make an impact on obtaining the reward (expectancy), and hence their willingness to use the card (motivation). However, when the endowed progress was high, a focus on remaining (vs. accumulated) progress increased the perceived marginal impact of the next purchase and hence participants' motivation to buy (see Figure 2).
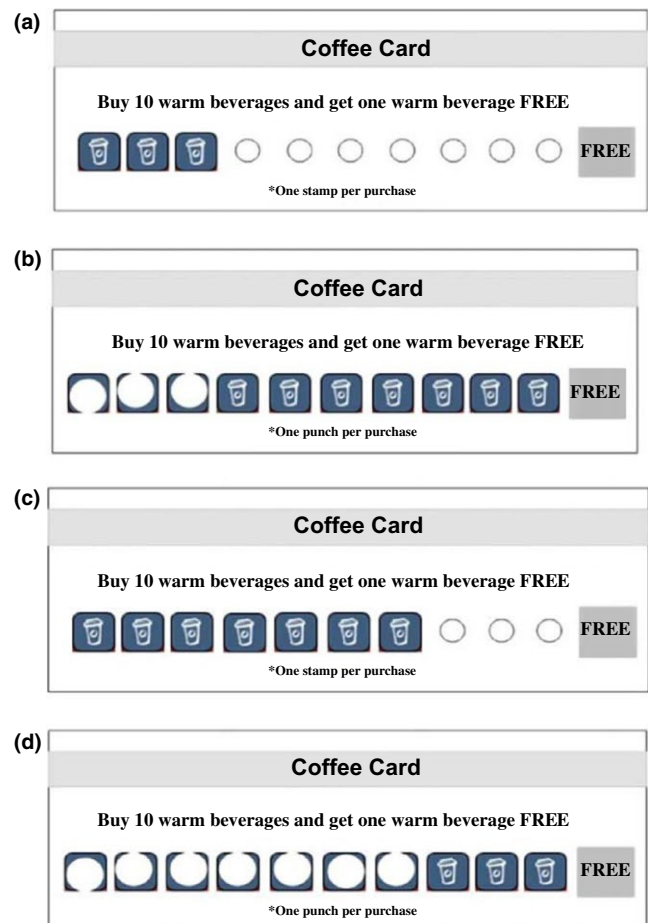
FIGURE 1 (a) Low progress, focus on accumulated progress; (b) low progress, focus on remaining progress; (c) high progress, focus on accumulated progress; (d) high progress, focus on remaining progress (Koo & Fishbach, 2012)
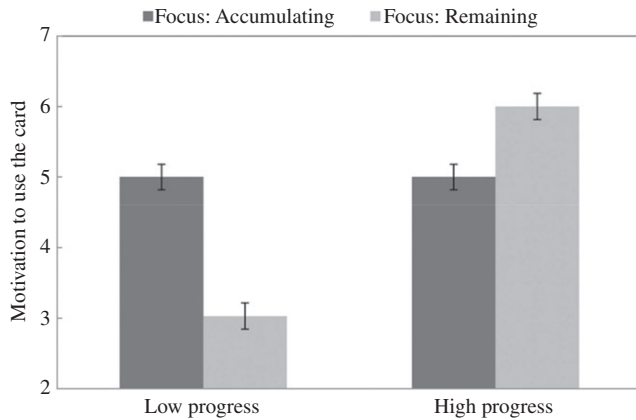
FIGURE 2 Motivation as a function of level of progress and focus on accumulated versus remaining purchases to receive a reward (Koo & Fishbach, 2012)

Recent findings by Touré-Tillery and Fishbach (2017) in the prosocial domain show that expectations of impact can also come from the metaphorical application of knowledge about physical impact (i.e., "impact increases with closeness") to the more abstract context of prosocial impact (see also, Landau, Zhong, & Swanson, in press). The authors start with a simple fact: Holding force constant, a snowball thrown from 10 feet away will have a greater impact than one thrown from 50 feet away. The authors find that through a process of metaphorical thinking, people expect their charitable actions—much like snowballs—to have more impact on nearby recipients than on those far away. Therefore, because expecting to have an impact is motivating, people are more willing to help those they perceive as spatially close (vs. far). In one study, a large field experiment conducted as part of a business school's annual fund-raising campaign, alumni of the school received a letter soliciting a gift for the school and describing the school as either "far away" or "nearby." Results showed alumni gave more, and a greater percentage of alumni gave, when their alma mater was described as nearby (vs. far away), regardless of actual distance. In another study, American participants read a charitable appeal requesting monetary donations to support sanitation efforts in Haiti. Depending on the condition, Haiti was described as nearby or far away. Results showed that when Haiti was framed as nearby, participants expected their donations to have more impact and were more willing to donate money than when Haiti was framed as far away. Moreover, participants' expectations about the impact of their donations mediated the relationship between perceived distance and donation intentions.

Thus, when people focus on the outcome of goal pursuit (i.e., what will I accomplish?), value and expectancy are important factors that increase motivation. In this case, for the goals they value, people will choose a course of action based primarily on how effective they expect it to be at achieving the goal—with less emphasis on how the experience might feel or on how the action might make them feel about themselves. Consequently, a person with a goal to lose weight by changing her diet might try a potentially harmful fad diet (e.g., laxative tea) instead of choosing to eat more healthfully (e.g., fruits and vegetables) if she expects the former to be more effective and despite

the fact that it might make for a less enjoyable weight-loss experience. Within this perspective, research suggests people will often engage in personally risky and aversive behaviors for social rewards (e.g., reputation, friends; see Rawn & Vohs, 2011). Indeed, most people want relevant others to have a positive impression of them, and thus actively manage these impressions, behaving in ways that allow them to present themselves in a positive light to these others. Purdie and Downey (2000) show that adolescent girls who are highly sensitive to rejection are willing to engage in sexual behaviors they find unpleasant, personally harmful, or morally wrong, because such behaviors are effective ways to enhance their popularity or maintain romantic relationships. In sum, when people are driven by external rewards, they might behave in ways that compromise their enjoyment of the process or their desired perceptions of themselves.

3 | THE PROCESS: HOW WILL I EXPERIENCE THE GOAL?

Whereas extrinsic (i.e., outcome-focused) motivation enables actions aimed at reaching a desired end state, intrinsic (i.e., process-focused) motivation enables actions that themselves constitute the desired end state (Kruglanski et al., 2017; Lepper & Greene, 1978; Woolley & Fishbach, 2016). An activity is intrinsically motivated if it constitutes its own end (Laran & Janiszewski, 2010; Sansone & Morgan, 1992). When people's motivational focus in on the process of goal pursuit, their motivation stems from internal rewards and increases as a function of the extent to which goal-related activities elicit positive feelings of enjoyment, interest, and satisfaction (Bindra, 1974; Custers & Aarts, 2005; Ferguson & Bargh, 2004; Fishbach, Shah, & Kruglanski, 2004).

A recent analysis by Kruglanski et al. (2017) defines an intrinsically motivated activity as one that is strongly associated or "fused" with the goal that it serves. This fusion leads the positive experience of goal attainment to transfer to the pursuit of the activity, such that people experience goal attainment (e.g., feeding the homeless) from merely engaging in the activity (cooking at a soup kitchen). Several factors can increase the strength of the activity–goal association, and hence, the degree to which the activity is intrinsically motivated: (a) the extent to which the activity is repeatedly paired with the goal (e.g., cooking at the soup kitchen always feeds the homeless), (b) the extent to which the activity is similar to the goal (e.g., cooking and serving food = feeding), (c) whether the goal is achieved while—or in temporal proximity to—pursuing the activity (e.g., the homeless get to eat shortly after the food is cooked), and (d) the extent to which the activity–goal link is unique (e.g., the only way to feed the homeless in the short run is to give them food).

Intrinsic motivation toward a given goal can stem from individual differences. For example, people who naturally enjoy typing emails would be more motivated to respond to their 376 emails than those who intrinsically dislike this activity—even if both groups recognize the external benefits of being responsive. Education researchers have long linked improved academic performance to greater intrinsic motivation

(Deci, Vallerand, Pelletier, & Ryan, 1991; Lepper, Corpus, & Iyengar, 2005; Pintrich & De Groot, 1990). In other goal domains, Woolley and Fishbach (2017) found that the extent to which people enjoyed pursuing a goal was a better predictor of their persistence at following through with their New Year's resolutions, and their goals to study and exercise, than was the extent to which people felt these goals were important for them. Their results suggest that even for activities that are initially selected for their extrinsic value (e.g., exercising, studying), intrinsic motivation is a stronger predictor of engagement than extrinsic motivation (see Figure 3).

Beyond natural inclinations, strategies that increase positive feelings during a task can also increase people's motivation to pursue tasks regardless of whether they are dispositionally intrinsically motivated (e.g., tedious tasks; Laran & Janiszewski, 2010; Sansone & Morgan, 1992). Thus, for those unfortunate souls lacking the joy-of-typing gene, attending to an immediate positive outcome of typing emails would motivate them to respond to their 376 emails. For example, thinking about the fun of communicating with their 376 closest friends or listening to their favorite music while typing might render the goal-pursuit experience more enjoyable and hence increase motivation. Within this perspective, Woolley and Fishbach (2016) found that compared to gym-goers who chose fitness exercises they found most useful for their health goals, those who chose exercises they found most enjoyable from the same list (e.g., shoulder press, bicep curl) completed more sets—that is, they worked harder.

In sum, when people focus on the process of goal pursuit, the extent to which working toward the goal provides them with subjective feelings of enjoyment, interest, and satisfaction is a key source of intrinsic motivation. The implication is that people will choose a course of action based primarily on how satisfying this course of action seems (i.e., how will the experience feel?)—with less emphasis on what the action might accomplish or on how the action might make them see themselves. For example, Woolley and Fishbach (2016, 2017) demonstrated that when a person with a goal to lose weight focuses on the process, he might go for tasty healthy foods and fun workouts. In their studies, choosing based on process consideration was a good strategy for achieving outcomes, often better than choosing based solely on outcome consideration. However, choices resulting from a process focus are not always superior to those resulting from an outcome focus. For example, when focusing on the process, a person with a goal to help people in need might volunteer to travel to a remote village to build houses, which would no doubt be internally rewarding. Furthermore, selflessly using one's free time to build houses for the poor should do wonders for this volunteer's perception of himself as a good person. However, one might argue that donating the cost of airfare to an effective organization would be a much more useful way to help than providing unskilled volunteer labor. Thus, in this case, shifting his motivational focus to the outcome might make this volunteer think twice before packing his bags and heading to the airport.

4 | THE SELF: HOW WILL I FEEL ABOUT MYSELF?

People often learn about themselves by observing their own behaviors and drawing inferences about their own attitudes, traits, and characteristics (Bem, 1972). Furthermore, people are continually motivated to maintain a positive self-concept (Dunning, Leuenberger, & Sherman, 1995; Greenwald & Breckler, 1985; Prelec & Bodner, 2003; Schlenker, 1985). Thus, they strategically behave in ways that allow them to present themselves *to themselves* in a positive light (self-signaling; Bodner & Prelec, 1996; Dunning, 2007; Mazar, Amir, & Ariely, 2008). For example, a person might donate to charity because doing so will make her feel generous, and she might choose to eat a fruit—rather than a candy bar—to perceive herself as health conscious. Thus, people cater to both an external audience (other people) and an internal audience (the self). However, although trying to look good in one's own eyes (self-signaling) and trying to look good in the eyes
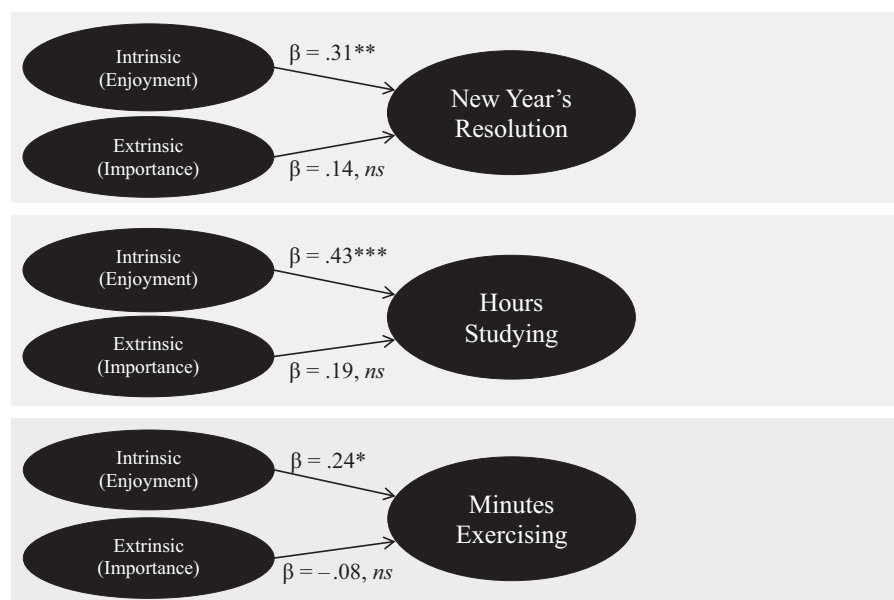
FIGURE 3 Intrinsic motivation (enjoyment) predicts persistence more than extrinsic motivation (importance) in adherence to New Year's resolution, studying and gym exercising (Woolley & Fishbach, 2017)

of others (social signaling) often produce similar types of behaviors, social signaling is a manifestation of an outcome focus (what will I accomplish?) rather than that of a motivational focus on the self. In this case, the outcome is the social reward from achieving a goal. By contrast, self-signaling—that is, catering to one's internal audience—is a behavioral manifestation of a focus on the self.

Research on self-signaling motivation suggests that when people's primary motivation is to maintain a positive self-concept, the extent to which they perceive an action as indicative of the type of person they are (self-diagnostic) is an important guide for their behavior (Bodner & Prelec, 2003; Dunning, 2007; Touré-Tillery & Fishbach, 2012, 2014, 2015). In particular, when people deem their actions are self-diagnostic, they will be motivated to "do the right thing," behaving in ways that allow them to signal desired characteristics about themselves to themselves (e.g., adhere to moral standards, apply themselves at tasks, give to charity, and exercise self-control). Many factors can influence the perception that an action is self-diagnostic. Research on self-signaling suggests the more effort an action requires or the more an action deviates from the norm, the more the action will seem diagnostic for inferences about the person who performed it. For example, compared to someone who goes jogging on a beautiful spring morning, someone who jogs in the rain would feel more like a serious runner, because the latter is doing something harder and less common (see Bodner & Prelec, 1996; Skowronski & Carlston, 1987).

Yet difficulty and deviation from the norm are only instances of a broader category of factors that influence perceptions of self-diagnosticity: the absence of obvious alternative explanations for an action—beyond the performer's internal characteristics. Thus, an action that is obviously costly to the performer (e.g., running in the rain is uncomfortable), or one that provides no obvious benefits to the performer (e.g., being honest when one can cheat without being caught), will generally be seen as more self-diagnostic (Prelec & Bodner, 2003; Savary et al., 2015). For such an action, no process (e.g., positive experience) or outcome (e.g., external reward) explanations exist. More generally, an *internal attribution*—perceiving the action as self-diagnostic because there is no other explanation—is one factor that increases the motivation to pursue an action that has the potential to self-signal desired characteristics. Furthermore, the *expected memorability of an action* is another category of factors that influences perceptions of self-diagnosticity and hence self-signaling motivation (Touré-Tillery & Fishbach, 2012; Touré-Tillery & Light, 2017). In the sections that follow, we discuss the factors that influence motivation when people's primary concern is maintaining a positive self-concept.

5 | EXPECTING TO REMEMBER

We propose people will perceive actions they expect to remember as more self-diagnostic. Indeed, because autobiographical memories are the foundation of the self-concept, an action that comes to mind readily should have a greater influence on the self-concept. Research documents a bidirectional link between autobiographical memories and the self-concept: people's current or desired self-views influence how

they remember their past (Bartlett, 1932; Fischhoff & Beyth, 1975; Greenwald, 1980; Kouchaki & Gino, 2016; Ross & Buehler, 1994; Singer & Salovey, 1993), and what people remember about their past influences their current self-views (Albert, 1977; Conway & Pleydell-Pearce, 2000; Wilson & Ross, 2003). Thus, when people focus on the self, the extent to which they expect to remember an action should influence their motivation to behave in ways that allow them to maintain their desired self-concept (self-signaling motivation).

Findings by Touré-Tillery and Fishbach (2012) support this notion. These findings draw from memory research showing that people tend to remember the first few items (primacy effect) and the last few items (recency effect) of a sequence of stimuli (e.g., words) better than the items in the middle of the sequence (see Greene, 1986, for review) due to the salience of these items (Murdock, 1960). Specifically, Touré-Tillery and Fishbach (2012) suggest people expect to remember their actions at the beginning and end (vs. middle) of a sequence of actions better, and show that when people are completing a series of actions toward a goal, they see actions at the beginning and end (vs. middle) as more self-diagnostic. In turn, due to this greater perception of self-diagnosticity, people are more likely to adhere to their standards (of morality, religion, and performance) at the beginning and end (vs. middle) of such sequences. In one of their experiments, participants' goal was to proofread each of 10 passages, and participants assigned themselves to the short or long version of each passage by flipping a coin—labeled "short" on one side and "long" on the other side—in private. Thus, every time they got "long," participants could either be honest and work on the long task or lie and work on the "short" task to finish the study quickly. Results showed the percentage of participants reporting "short" was significantly greater than chance (50%) in the middle, but close to chance at the beginning and end, indicating most participants were honest at the beginning and end, but not in the middle (see Figure 4).

In another experiment, Touré-Tillery and Fishbach (2012) relied on false feedback to show that perceptions of self-diagnosticity drove this pattern of response, the rationale being that feedback about a self-diagnostic (vs. non-diagnostic) action will have a greater influence on how people see themselves. In this experiment, participants' goal was to cut five identical complex shapes out of paper. At the end of the experiment, participants received positive (false) feedback about their performance for one of their shapes (the first, the third, or the last), and then rated their own cutting skill level, eye–hand coordination, and dexterity. Participants who received positive feedback about their first or last shape subsequently perceived themselves as more skilled than those who received the same feedback about their third shape, suggesting first and last actions seemed more self-diagnostic.

Lending further support to the notion that people expect to remember beginnings and endings, Touré-Tillery and Fishbach (2015) show that these perceptions of self-diagnosticity and corresponding good behaviors extend to contexts in which a single decision is described as the first or last (vs. middle) of an arbitrary sequence. In a field experiment at a business school, the authors set up a free snack table for students—a common occurrence at the school. The snacks included an indulgent option (Kit Kat bars) and a healthier option
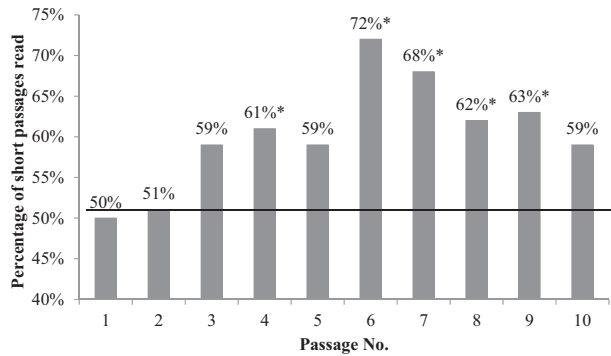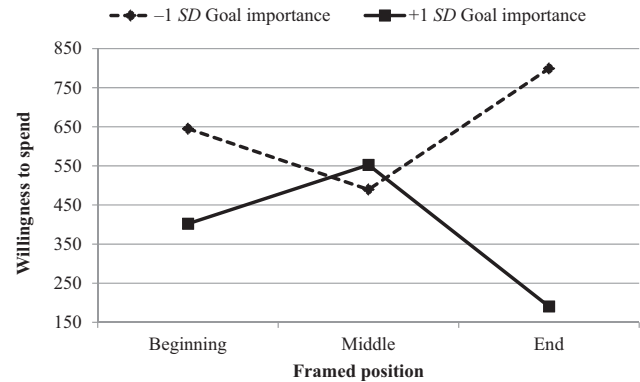
FIGURE 4 Percentages of participants who reported the favorable outcome of the coin flip and assigned themselves to the short proofreading passage, for each of the 10 passages in the sequence. Horizontal line at 50% value indicates chance level. *$p < .05$ (percentage greater than chance; Touré-Tillery & Fishbach, 2012)

FIGURE 5 Willingness to spend at framed beginning, middle, and end as a function of financial-goal importance (-1 SD = Low; $+1$ SD = High). Only participants with high financial-goal importance indicated lower willingness to spend at the beginning and end (vs. middle; Touré-Tillery & Fishbach, 2015)

(Sunkist raisin packets). A pretest showed most students at this school cared about being health conscious and so would feel better about choosing raisins. Behind the snack table, a poster described the choice of snack as occurring at the beginning of the afternoon, in the middle of the day, or at the end of the morning. As the experiment took place around noon, each time frame referenced accurately described the time of day. Results showed students were more likely to choose the healthier snack when the poster described their choice as being at the beginning or end (vs. middle) of the time frame. This set of studies, using one-time choices, also ruled out alternative explanations for the effects documented with sequential actions (e.g., depletion, licensing, and learning).

To show that perceptions of self-diagnosticity drove this pattern of behavior, Touré-Tillery and Fishbach (2015) looked at the moderating role of the importance of a goal. Indeed, the extent to which a goal (health, financial) is important reflects its centrality to the self-concept (Cantor, Markus, Niedenthal, & Nurius, 1986; Foote, 1951; Gollwitzer & Wicklund, 1985). Thus, if "good" behavior at the beginning and end (vs. middle) of sequences stems from perceptions of self-diagnosticity, this effect should be particularly strong for people who value the goal dictating this good behavior. Within this perspective, the authors asked college students to indicate their willingness to pay for various products (e.g., wallet, vacuum, dress shoes, backpack, bath towel)—a measure of self-control—as part of a shopping survey titled "start of quarter shopping," "middle of year shopping," or "end of quarter shopping," depending on the experimental condition. The students also indicated the extent to which they cared about financial goals such as saving and watching their spending. As expected, participants who cared about these goals indicated lower willingness-to-pay amounts at the beginning or end (vs. middle). However, participants who did not care about financial goals did not exhibit this pattern of self-control (see Figure 5).

Thus, factors external to the self (e.g., real or perceived order) may influence the perceived memorability of an action, and hence, the extent to which the action is considered self-diagnostic. Beyond external factors, recent research shows factors internal to the self, such as the perceived degree of overlap within the self-concept, can also influence perception of self-diagnosticity. Indeed, people's self-concepts vary not only in terms of their content ("I am gentle"), but also in terms of their structure: People have different identities ("I am grandfather," "I am a politician"), each corresponding to different ideas about the self (Gergen, 1971; Greenwald & Pratkanis, 1984; James, 1892; Kihlstrom & Cantor, 1983; Linville, 1985; Markus & Nurius, 1986; Rosenberg & Gala, 1985). In particular, some people view their identities as distinct, such that their thoughts and feelings about themselves are different across these identities ("I am a gentle and understanding grandfather, but I am a tough and competitive politician"). Other people view their identities as overlapping, such that their thoughts and feelings about themselves are the same across these identities ("I am a gentle, understanding grandfather and politician"). Touré-Tillery and Light (2017) find that people high (vs. low) in identity overlap or self-overlap tend to see their actions as self-diagnostic, and hence are more likely to behave morally—that is, less likely to cheat and more likely to give to charity (self-signaling motivation). Indeed, for a person high (vs. low) in self-overlap, thoughts and feelings about one identity after a given deed will be more likely to spread to other identities and thus will come to mind more readily.

6 | INTERNAL ATTRIBUTIONS

When people cannot easily identify external influences on their behavior, they should be more likely to attribute this behavior to their own internal characteristics and dispositions—that is, the behavior should seem more self-diagnostic. Thus, whereas perceiving complete freedom would render actions extremely self-diagnostic and hence encourage "good" behavior, perceiving stringent constraints on behavior should render actions virtually non-diagnostic and hence increase the likelihood of "bad" behaviors—to the extent allowed by these stringent constraints. Findings showing that decreasing participants' belief in free increases the likelihood of unethical, impulsive, and antisocial

behavior support this notion (Baumeister, Sparks, Stillman, & Vohs, 2008; Vohs & Schooler, 2008). In the context of everyday vices and virtues, Dhar and Wertenbroch (2012) show that people derive more satisfaction from choosing an indulgent food item from a (constrained) choice set consisting only of indulgent options than from one including both indulgent and healthier fares (unconstrained choice set). Indeed, the former choice set relieves participants of making self-inferences, as they do not have a choice.

Within this perspective, because the norms set by one's society represent models or rules of proper conduct, they also impose constraints on behavior, such that people should consider actions that are within reasonable bounds of the norm less diagnostic than actions that fall outside these normative bounds. For example, in an environment where no one recycles, not recycling would not be self-diagnostic of one's eco-friendliness (or lack thereof), while walking several blocks to recycle one's trash would. Indeed, findings by Skowronski and Carlston (1987) in the context of interpersonal judgment support this notion. The authors find that people perceive immoral behaviors (e.g., cheating on a final examination) as more indicative of a person's dishonesty than they perceive moral behaviors (e.g., returning a lost wallet intact) as diagnostic of a person's honesty. These findings can be explained in terms of moral behavior being seen as the norm.

Beyond constraints, the extent to which an action seems beneficial or costly will influence whether people can easily identify alternative explanations for the action. From this cost-benefit perspective, an action that seems more costly than beneficial to the performer should seem more self-diagnostic than an action that seems more beneficial than costly to the performer. Additionally, holding expected costs constant, the perceived self-diagnosticity of an action will increase as the benefits of engaging in the action decrease. By contrast, holding expected benefits constant, the perceived self-diagnosticity of an action should increase as the costs incurred through the action increase. Costs and benefits may consist of tangible or intangible resources such as physical or mental resources (e.g., effort, energy, and comfort), material resources (e.g., money, goods), or social resources (e.g., friends, secret admirers). In the context of physical or psychological resources, Dhar and Wertenbroch (2012) found that participants were more likely to choose a hotel offering a mix of healthy and indulgent food options than one offering only healthy options. Indeed, because resisting temptation by exercising self-control (as would be required with a mixed choice set) can be physically and mentally costly, it is considered more diagnostic of desirable characteristics such as willpower or health consciousness (see also Prelec & Bodner, 2003; Savary et al., 2015).

In the context of material resources, actions that provide minimal benefits in terms of money or valuable goods are seen as more self-diagnostic. For example, in field experiments involving purchases of a consumer good (movie ticket) bundled with a charitable donation, Dubé, Luo, and Fang (2017) found that for bundles with moderately high donation amounts, participants self-reported self-signaling motivation (i.e., buying a movie ticket to "feel good" about themselves) decreased as the size of the price discount increased. The rationale is that because consumers are benefiting from the large price discount,

the associated donation becomes less diagnostic for self-inferences of altruism. Additionally, in the context of social resources, actions that provide social rewards or prevent social costs are seen as less self-diagnostic. For example, in one study by Cioffi (1995), female students decreased their endorsement of female-relevant issues (e.g., "the university has not done an adequate job of promoting and hiring women faculty") when they supposedly represented a group of "female students" than when they represented a group of "sophomores." Indeed, representing one's own social group might provide social benefits, leading people to discount how much one cares.

In sum, when people's motivational focus is on the self, their motivation stems from a desire to maintain a desired self-concept and increases with the extent to which they perceive their actions as self-diagnostic. Thus, for consumption decisions they consider self-diagnostic, people will be more likely to apply themselves and adhere to the goals and standards they value (e.g., save money, buy ethical products). In such situations, considerations of the effectiveness of one's actions or of how satisfying the experience might be will become secondary, unless such considerations are relevant for inferences about the self. For example, when a consumer with a goal to lose weight focuses on the self, he might choose to go for a run on a rainy morning—rather than on a beautiful spring morning—because the more effort an action requires, the more self-diagnostic the action will seem (see also Bodner & Prelec, 1996, 2003). It just so happens that running in the rain can also be more effective at burning calories, so a focus on the outcome might also push an informed runner to get wet. However, focusing on the process might discourage our runner from braving the elements, as wet clothes and soggy shoes would make for a much less enjoyable experience.

7 | MULTIPLE MOTIVATIONAL FOCI

Although we have presented three different motivational foci along with their specific corresponding sources of motivation, we note factors that have been found to influence one type of motivation (e.g., outcome-focused) could also influence other types of motivation (e.g., process-focused and/or self-signaling), either directly or indirectly, through corresponding sources. For example, in the literature, expectancy and value are typically associated with outcome-focused motivation, but these factors may also influence self-signaling motivation. Consider a local coffee shop with a loyalty program that rewards customers after 10 purchases with a choice between a free beverage and a $5 charitable donation in their name. In this case, high expectancy and value for the possible reward would increase not only the outcome-focused motivation to make 10 purchases and get the reward, but also the self-signaling motivation to make 10 purchases and be the type of (altruistic) person who chooses to help a worthwhile cause rather than consume a free beverage.

Similarly, internal rewards have been associated with process-focused or intrinsic motivation, but may also influence outcome-focused motivation. In our loyalty program example, the extent to which pursuing the goal (buying 10 beverages) provides internal rewards

(enjoying tasty beverages) should not only increase the process-focused motivation to enjoy the experience, but should also increase the outcome-focused motivation to continue to engage in goal-related actions (buying more tasty beverages). Moreover, while internal attributions increase self-signaling motivation, they might also have an indirect effect on outcome-focused motivation by influencing goal expectancy. Indeed, attributing a successful goal-related action—such as acing one of five tests required for a course—to one's internal characteristics (e.g., "I am so smart") might increase a student's perceived ability to pass the course (expectancy), which in turn would increase her outcome-focused motivation to pass the course.

These examples also imply that at any given point in time, a person might focus on more than one aspect of a goal. For example, a consumer with a goal to complete her weekly shopping in time to pick up her kids from day care might focus either on the outcome (getting the shopping done quickly), on the process (enjoying the experience), or on the self (getting good deals to maintain her perception of herself as a savvy shopper), or on any combination of the three. Whereas in some cases different motivational foci might produce similar courses of action, in other cases different foci might produce conflicting courses of action. For example, if our shopper enjoys the efficiency of crossing items off her list, then focusing on the outcome and the process should both encourage her to get the shopping done quickly, but could prevent her from taking the time to look for good deals (i.e., bad for the self). If our shopper enjoys looking for bargains, focusing on the process and the self might equally encourage her to look for good deals, which might get in the way of completing the shopping quickly (i.e., bad for the outcome). Thus, multiple foci might push consumers to undertake complementary or conflicting courses of actions.

Touré-Tillery and Fishbach (2012) tested the notion of multiple motivational foci by giving participants a goal to complete a series of lexical tasks. To measure motivation stemming from a focus on the self, they examined participants' performance at the tasks—an indication of how much they applied themselves. They measured outcome-focused motivation by recording intertrial durations or how long participants spent between tasks—an indication of the strength of their desire to reach the end state. Results showed performance at the task followed a U-shaped pattern, whereby participants performed better on tasks at the beginning and end (vs. middle), a pattern consistent with the notion that actions at the beginning and end are seen as more memorable and hence self-diagnostic. By contrast, outcome-focused motivation followed the well-documented goal-gradient pattern, such that participants took increasingly shorter pauses between tasks as they approached the end of the goal—that is, they worked progressively faster as they approached the end state because they were eager to finish the task and receive the reward.

8 | CONCLUSIONS AND IMPLICATIONS

This article reviewed findings from psychology and consumer research about the three sources of motivation corresponding to three possible motivational foci during goal pursuit: the outcome, the process, and the self. In particular, we distinguished between the motivations to obtain external versus internal rewards, which correspond to whether people focus on the outcome versus the process. We then turned to the motivation to maintain a positive self-concept, whenever the focus is on the self, and argued that the perception that an action is self-diagnostic increases this motivation. Two overarching categories of factors influence this perception of self-diagnosticity: the potential for making an internal attribution for an action and the extent to which people expect to remember an action.

The findings we reviewed here have important implications for understanding consumer motivation and designing interventions that increase motivation in consumption contexts. First, our analysis of the antecedents of self-diagnosticity provides a basic framework for generating and testing new hypotheses about the various factors that influence the perception of self-diagnosticity. Specifically, future research could identify factors that influence the extent to which people make internal attributions for an action and the extent to which people expect to remember an action, and test the effect of these factors on perceptions of self-diagnosticity and subsequent judgments and behaviors.

Second, the findings we discussed here highlight the importance of ensuring a match between interventions meant to increase motivation and consumers' motivational focus at the time of the intervention. For example, when consumers are focused on the outcome of goal pursuit (e.g., losing 20 pounds), they should be particularly responsive to persuasive appeals that highlight the efficacy of a diet-nutrition plan. However, such an appeal might do little to motivate consumers focused on the process and wondering, "How will I feel during this diet?" For consumers focused on the process, an appeal that highlights the quality of the diet food or the sense of well-being during the diet should be more effective. However, if the appeal goes too far in conveying a sense that the diet is easy, it might decrease the motivation of a consumer focused on the self during goal pursuit.

Finally, our analysis suggests courses of action consistent with all three sources of motivation should be particularly energizing. For example, an aspiring musician with the goal to learn to play the guitar might consider the extent to which a lesson advances her goal to play popular pieces on the guitar (outcome), the extent to which she enjoys the lesson (process), and as the extent to which the lesson makes her feel like "a real guitarist" (self). Her motivation to attend and participate in a lesson that fulfills these three requirements (vs. only one or two) should be higher. By contrast, a lesson that fails on all three counts (e.g., music theory with no guitar in sight!) might be particularly tedious. Future research could further investigate this proposition and the other propositions derived from the present analysis.

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