Behavioral Reasoning Theory: Identifying New Linkages

Underlying Intentions and Behavior

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Abstract

This study developed and tested a new theory of behavior, entitled behavioral reasoning theory. The theory proposes that reasons serve as important linkages between beliefs, global motives (e.g., attitudes, subjective norms, and perceived control), intentions, and behavior. An underlying theoretical assumption in this framework states that reasons impact global motives and intentions, because they help individuals justify and defend their actions. Four studies were conducted to test theoretical propositions. Using confirmatory factor analyses and structural equation modeling, Study 1 demonstrated that reasons (for and against the behavior) were differentiated from global motives and independently predicted intentions and behavior. Through orthogonal manipulation, Study 2 showed that global motives and reasons influenced intentions. Study 3 found that reasons contributed to the prediction of intentions beyond traditional belief concepts and that belief concepts predicted reasons. Finally, Study 4 experimentally demonstrated that traditional belief concepts (including interaction terms) and reasons influenced global motives and intentions. In all, while traditional concepts explained significant amounts of variance, the overall results suggest that reason concepts explain meaningful amounts of additional variance and, thus, also need to be considered.

Understanding the fundamental determinants of behavior has been a paramount goal for many theorists in the social and decision-making sciences. Fortunately, behavioral intention models have greatly advanced our understanding of such behavioral determinants. These models typically rely on the theory of reasoned action (Fishbein & Ajzen, 1975) and the theory of planned behavior (Ajzen, 1991) to explain the fundamental basis of behavior. These models generally state that attitude toward the behavior, subjective norm, and perceived control predict intention and that intention predicts behavior. Figure 1 presents a visual overview of these propositions. Impressively, these models have received robust support in numerous behavioral domains (Ajzen, 2001, Eagly &Chaiken, 1993, Sheppard et al., 1988) and are considered to be some of the most widely applied theories in social psychology (Greve, 2001).

Behavioral intention models also hypothesize that belief concepts (e.g., behavioral beliefs, normative beliefs, and control beliefs) predict attitudes, subjective norms, and perceived control (Ajzen &Fishbein, 1980, Fishbein &Ajzen, 1975). However, even though belief concepts provide an understanding of the context-specific factors influencing behavior (Harrison, 1995), these concepts have received relatively less scholarly attention (Ajzen, 1991). Moreover, behavioral intention models have not theoretically addressed if or how "reason" concepts provide unique insight into motivational mechanisms. This is an important theoretical question because reason concepts have demonstrated predictive validity in a number of judgment and decision-making contexts (Campion, 1991, Pennington & Hastie, 1988, Westaby et al., 2005). Thus, the purpose of this paper was to develop and test "behavioral reasoning theory," which articulates

theoretically justified linkages between people's beliefs, reasons, global motives, intentions, and behavior.[1]

Behavioral Reasoning Theory

Overview

The overarching theoretical proposition in behavioral reasoning theory (BRT) states that reasons serve as important linkages between people's beliefs, global motives (e.g., attitudes, subjective norms, and perceived control), intentions, and behavior. Furthermore, the theory assumes that reasons impact global motives and intentions, because they help individuals justify and defend their actions, which promotes and protects their self-worth. Conceptually, the framework also differentiates between global motives and context-specific beliefs and reasons. Global motives are defined in BRT as broad substantive factors that consistently influence intentions across diverse behavioral domains. Thus, attitude, subjective norm, and perceived control are subsumed under this classification, because they are estimated at a broader level of abstraction and have significantly predicted intentions across numerous studies (Ajzen, 2001).[2] This language is also consistent with the original theorists who often refer to the direct estimates

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[1] Advancing this line of theorizing is important for added reasons: (1) BRT examines supplemental mediation process, in line with Ajzen's call for research: "efforts need to be directed toward developing alternative models that could be used to describe the relations between beliefs on one hand and the global constructs on the other" (1991, p. 198). This also corresponds to Davis, Bagozzi, and Warshaw's (1989) recommendation that behavioral intention models more carefully examine mediation processes between beliefs and intentions. (2) BRT responds to Harrison's (1995) call for more testing of belief components in behavioral intention models. (3) BRT addresses how reasons serve post hoc stabilization and change functions, which has not been sufficiently addressed in past theory. (4) In the context of employee turnover, BRT also responds to Lee and Mitchell's (1994) observation that "Turnover research badly needs some new theory" (p. 85). (5) Finally, BRT can provide applied researchers with a broader conceptual platform to understand reasons; many past reason assessments have been void of underlying theoretical justifications for the reason measures (Campion, 1991, Ellingson et al., 1998, Ragins and Scandura, 1997). Likewise, the reasoning literature has provided little insight into real-world behavior, as evidenced by Galotti's (1989) observation that "Few researchers have studied everyday reasoning …" (p. 334).

[2] Because there is still question about the theoretical sufficiency of the current set of global motives (Ajzen, 2001), BRT is open to the inclusion of additional global motive factors, such as moral obligation (Harrison, 1995, Prestholdt et al., 1987), if research consistently demonstrates construct differentiation and predictive validity across diverse behavioral domains.

of attitudes, subjective norms, and perceived control as "global" constructs (Ajzen, 1991, p. 191). In contrast to global motives, context-specific beliefs and reasons are contextualized to the specific behavior under investigation (often through elicitation research) and are presumed to serve as the fundamental antecedents of global motives and intentions. For example, a person may use several context specific reasons to explain his or her behavior, in contrast to the person's global attitude toward the behavior.

Figure 2 provides a visual representation of propositions in BRT and a brief overview is provided. Consistent with past theory, BRT hypothesizes that intentions are powerful predictors of behavior (H1). Furthermore, global motives are expected to predict intentions, in line with past models (H2). As a unique prediction, reasons are expected to predict global motives, presumptively through justification and defense mechanisms (H3). These mechanisms are further expected to allow reasons to directly predict intentions beyond that explained by global motives (H4). However, reasons are not presumed to exist in isolation from people's beliefs and values. Instead, the reasons people use to influence and sustain their behavior are presumed to result from the processing of their beliefs and values (H5). Direct linkages between beliefs and global motives are also expected because of automated processes that may circumvent deeper reason activation (H6). Finally, BRT theorizes that reasons become strengthened after behaviors are enacted, in accordance with dissonance theory and may be used to support, distort, or rationalize behavior. Each linkage in the model is considered in turn, starting with the prediction of behavior. This ordering is in line with past theoretical presentations (e.g., Ajzen, 1991, Harrison, 1995).

Intentions → Behavior

The first linkage in BRT is consistent with past behavioral intention models, such as the theory of reasoned action (Fishbein & Ajzen, 1975) and the theory of planned behavior (Ajzen, 1991), which propose that intentions serve as the critical determinants of behavior. Fishbein and Ajzen have defined intention as a "… person's location on a subjective probability dimension involving a relation between himself and some action" (1975, p. 288). The underlying psychological assumption driving the linkage between intentions and behavior is that most human behavior is under volitional control (Ryan, 1970). Intentions are also hypothesized to mediate the effect of other cognitive, affective, and contextual variables for the prediction of behavior in past behavioral intention models. Thus, the effect of such variables on behavior is presumed to be funneled through intentions, which directly drive behavior. This hypothesis has been confirmed in numerous behavioral domains (Ajzen, 2001, Wanberg et al., 2005) and is thus accounted for in BRT.

Hypothesis 1: Intentions will be positively related to behavior.

Global Motives → Intentions

Given intention's robust ability to predict behavior, a central goal in behavioral intention models is to predict intention. To achieve this, behavioral intention models, such as the theory of planned behavior, posit that attitude toward the behavior, subjective norm, and perceived control are the primary antecedents of intention (Ajzen & Madden, 1986) and mediate the effect of belief concepts (Ajzen, 1991). BRT classifies these antecedent factors as global motives because they are relatively broad substantive factors that consistently influence intentions across diverse behavioral domains. Attitude represents a person's global positive or negative evaluation toward doing the behavior, while subjective norm assesses the person's global perceived social pressure

from important others to engage in the behavior. Perceived control represents the extent to which

the person perceives he or she controls the execution of the behavior or finds the behavior easy

or difficult to perform (Ajzen, 1991, Venkatesh et al., 2000). This construct also has theoretical

overlap with task-specific self-efficacy (Ajzen, 2002, Bandura, 1991). Impressively, these global

motives have provided a strong prediction of intentions in numerous studies (Ajzen, 2001). Thus,

BRT incorporates these important constructs in its modeling of behavior.

> *Hypothesis 2:* Global motives (e.g., attitude toward the behavior, subjective norm, and
> perceived control) will be positively related to intentions.

The Conceptual Basis for Reasons

Several theoretical approaches suggest that people's reasons serve as the underlying

determinants of behavior (Greve, 2001, Ryan & Connell, 1989). First, the theory of explanation-

based decision making (Pennington & Hastie, 1993) states that people use reasons to support the

acceptability of decision alternatives. The more an explanation for a given decision alternative is

coherently plausible with strongly supported reasons, the more likely the person will select that

alternative with confidence (Pennington & Hastie, 1988, Pennington & Hastie, 1992). Second,

reasons theory (Westaby & Fishbein, 1996) suggests that reasons motivate behavior, because

they help people justify and defend their actions (Westaby, 2005), which helps promote or

protect their self-worth (Kunda, 1990, Tetlock et al., 1989). Thus, individuals should feel better

about themselves when they have justifiable reasons to support their anticipated behavior (Pieters

& Zeelenberg, 2005). Third, past theory and research suggest that people use justifiable reasons

for "pursuing a particular goal" (Bagozzi, Bergami, & Leone, 2003, p. 918) and that such

justifications are critical in the reasoning process (Galotti, 1989, Gigerenzer & Goldstein, 1996).

Fourth, recent versions of the functional approach to motivation are "… explicitly concerned

with the reasons and the purposes, the plans and the goals, that underlie and generate

psychological phenomena" (Clary et al., 1998, p. 1517). According to functional theorizing, any attempt to change behavior would succeed only if that attempt addresses the specific functions or reasons underlying the behavior (Katz, 1960, Snyder, 1992). Recent operationalizations of this approach have also measured functions as the reasons for engaging in the behavior (Clary et al., 1998, Rioux & Penner, 2001). Finally, reasons may be instrumental because they help individuals make sense of their world by providing them with causal explanations for their behavior, the behavior of others, and causal relationships in their environment. In sum, given the above rationale, BRT presumes that individuals frequently search for behavioral options in memory that have the most justifiable and defensible set of reasons. When those options are identified, decisions can be implemented with confidence.

In the predictive formulation of BRT, reasons are defined as the specific subjective factors people use to explain their anticipated behavior.[3] Reasons are further theorized to have two broad sub-dimensions: "reasons for" and "reasons against" performing a behavior. This distinction is supported by several psychological models that propose a dichotomous differentiation of motivational forces (Roe, Busemeyer, & Townsend, 2001). These opposing forces have been represented in past research as pros and cons, benefits and costs, and facilitators and constraints/obstacles/barriers, for example. Conceptual models employing some of these constructs include the transtheoretical model (Prochaska et al., 1994), decisional balance theory

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[3] Three types of temporally oriented reasons can be conceptualized. The reasons defined above can be conceptualized as "anticipated reasons," because of their future orientation. "Concurrent reasons" can be conceptualized as the specific subjective factors people use to explain their behaviors that are currently being executed (or not being executed). Finally, "post hoc reasons" can be conceived of as the specific subjective factors people use to explain their executed (or not executed) behaviors in the past. Regarding the reason construct's phenomenological base, BRT presumes that reasons are perceptually based phenomenon and are not necessarily the optimal or objective reasons underlying behavior. To this point, needs to justify one's behavior and the need to avoid psychological discomfort (Phillips, 2002, Steele et al., 1993) can result in suboptimal outcomes or even immoral behaviors based upon biased, distorted, or irrational reasoning (Kunda, 1990, Shafir & LeBoeuf, 2002). However, even though people may have poorly based reasons, BRT assumes that these reasons still motivate their irrational behavior (Westaby & Fishbein, 1996).

(Janis & Mann, 1977), cost-benefit models (Carlson et al., 2002, Thaler, 1999), reasons theory (Westaby & Fishbein, 1996), field theory (Lewin, 1951), the health-belief model (Janz & Becker, 1984), and models with facilitating/constraining conditions (Harrison & Liska, 1994, Steel and Mento, 1986, Triandis, 1977, Venkatesh et al., 2003).[4] An attractive feature of the reason conceptualization is that it subsumes other dichotomized dimensions. Specifically, reasons can represent not only people's pro/con and benefit/cost explanations, but also their facilitator/constraint explanations. Hence, reasons are conceptualized to capture a wide array of specific factors in the full explanation set.

Theoretically, it is also critical to articulate the conceptual difference between "beliefs" and "reasons." Fishbein & Ajzen (1975) state that "beliefs refer to a person's subjective probability judgments concerning some discriminable aspect of his [or her] world" (p. 131). While beliefs are broadly construed and can represent many forms of thought, reasons more narrowly focus on the cognitions people use to explain their behavior. In other words, reasons are specific cognitions connected to a behavioral explanation whereas beliefs are not restricted to the context of behavioral explanations alone (Westaby & Braithwaite, 2003). Technically, in relation to behavioral intention models, beliefs represent a person's subjective probability that his or her behavior could result in a wide array of outcomes in the future. In contrast, reasons represent the subjective probability that a specific factor is part of the person's behavioral explanation set. Beliefs and reasons can also be distinguished through the temporal orientation they may take in memory. According to traditional theorizing, behavioral beliefs use present conditions to make

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[4] The BRT framework is conceptually different from Herzberg's (1966) two-factor model, which does not posit explanation-based processes. Research also has not consistently supported hygiene and motivator distinctions in the model (Gordon, Pryor, & Harris, 1974). Moreover, unlike functional attitude theory (Katz, 1960), which posits explicit function types across contexts (e.g., the knowledge function), BRT allows specific sub-dimensions of reasons for and against the behavior to vary in different contexts.

contingency estimates about the future (Fishbein & Ajzen, 1975, Naylor et al., 1980, Vroom, 1964). They are forward facing. "If I engage in behavior B, it will lead to outcome O." The same generally applies for the normative and control beliefs. Reason perceptions, in contrast, can place an individual in the mindset of the future with the individual making likely attributions for that future state by evaluating the present. Hence, they can also be backward facing. "If I will have engaged in behavior B, it will likely have been because of reason R." To illustrate how beliefs and reasons can act differently in memory, consider the following example: An employee can strongly believe that his or her staying in a company would result in meaningful work, respectful pay, and excellent benefits (i.e., multiple strong beliefs). The employee also greatly values all of these outcomes (i.e., multiple strong values). However, when asked to explain his or her likely reasons for staying or not staying in the company, the employee states that his or her spouse's need to relocate will be the ultimate reason for deciding not to stay (one strong reason). In this example, the reason directly describes the strongest and most central cause in the person's anticipated explanation, whereas the other beliefs and values do not become reasons in the person's explanation.

In all, these conceptual arguments presume that reasons can tap different psychological orientations underlying behavior than traditional belief concepts. Empirical evidence has also supported the construct validity of reason concepts in comparison to traditional belief concepts. For instance, research has shown that individuals respond to reason scales differently than traditional belief scales, such as expectancy and value (Westaby, 2002), control beliefs (Westaby & Braithwaite, 2003), and attribute importance (Westaby, 2005). In these studies, reason concepts also demonstrated incremental predictive validity in comparison to traditional belief concepts. However, as will be shown in subsequent sections of this paper, reasons are not

presumed to exist in isolation from beliefs and values. Instead, reasons will be theorized to result, in part, from individuals' processing of their beliefs and values. Thus, the two constructs are theoretically expected to be related.

Reasons → Global Motives

BRT hypothesizes that reasons serve as important antecedents of global motives, such as attitudes toward the behavior, subjective norm, and perceived control. Theoretically, this is consistent with the theory of explanation-based decision making (Pennington & Hastie, 1988) and reasons theory (Westaby, 2005). These theories generally hypothesize that people form favorable evaluations toward a given alternative when they have strong reasons that support and justify the alternative. This line of theorizing is also consistent with theories demonstrating that justification mechanisms play a powerful role in judgment formation (Hsee, 1996). Bagozzi, Bergami et al. (2003) have also concluded that the procedures that assess reasons and their justifications can provide an understanding of the "grounds for attitude formation" (p. 931). Spreading-activation theory (Collins & Loftus, 1975) can also be used to justify the linkage between specific reasons and global motives in traditional behavioral intention models. That is, spreading-activation theory would hypothesize that strong reason cognitions would spread to adjacent cognitions at higher levels of abstraction associated with the same focal behavior (Anderson & Pirolli, 1984). For example, a person who has many strong reasons for performing a behavior would likely activate other more abstract behaviorally related cognitions, such as a global positive attitude toward performing the behavior. Finally, experimental research has shown that the manipulation of reasons can directly influence judgments (Levi & Pryor, 1987) and attitudes (Wilson, Dunn, Kraft, & Lisle, 1992), suggesting that reasons play a role in the judgment process.

Hypothesis 3: Reasons (for and against the behavior) will be related to global motives, such as attitude toward the behavior, subjective norm, and perceived control.

Reasons → Intentions

As a departure from past theory, BRT hypothesizes that reasons will explain incremental variance in intentions beyond that explained by global motives, such as attitude, subjective norm, and perceived control. Several theoretical arguments support this hypothesis. First, as indicated earlier, reasons capture justification and defense mechanisms that are not theoretically accounted for by past behavioral intention models. Because social psychological theorizing has shown that such mechanisms serve powerful needs to maintain people's self-worth (Steele et al., 1993, Wood, 2000), reasons may contribute to the understanding of behavioral criteria beyond that explained by global constructs alone (Kunda, 1990). In other words, reasons can be powerful drivers of intention because people feel more comfortable with themselves when they have reasons that justify and defend their anticipated actions, even if their global motives are not perfectly aligned with their intentions. For example, a supervisor may have justifiable reasons for dismissing an employee, even though he or she does not have a positive attitude towards it, feels mixed social pressures to do it, and finds it difficult to dismiss the employee. Several scholars have also shown that justification mechanisms directly impact choice (Barlas, 2003, Hsee, 1995, Huber & Seiser, 2001).

Second, predicting direct linkages between context-specific factors and intention has been theoretically justified in past behavioral intention frameworks (Bagozzi, 1982), such as in the technology acceptance model (Davis et al., 1989) and the unified theory of acceptance and use of technology (Venkatesh et al., 2003). For instance, these models have demonstrated that context-specific factors provide unique insight into intentions to use technologies beyond that explained by global constructs. Extending contemporary arguments that "context" is important in

motivational modeling (Bagozzi, Bergami et al., 2003, Eccles & Wigfield, 2002), BRT

hypothesizes that reasons will contribute to the prediction of intentions beyond that explained by

global motives alone. This is because reasons are presumed to capture important context-specific

justifications unaccounted for by traditional constructs. Psychologically, this suggests that

context-specific reasons may directly impact intentions, without people fully activating global

motive perceptions. This logic is also consistent with Davis et al.'s (1989) theory stating that

some linkages in behavioral intention models may not be fully activated in some circumstances

(p. 986). It is also in line with Gigerenzer and Goldstein's (1996) theory and research

demonstrating that "one-reason decision making" serves as a heuristic determinant of choice in

real-world decision contexts.

Finally, because BRT sharply differentiates between "reasons for" and "reasons against"

performing a behavior, which is not explicitly addressed in past behavioral intention models,

reasons may provide unique insight into intentions, given past research supporting such

bifurcated dimensions (Velicer, DiClemente, Prochaska, & Brandenburg, 1985). Applied reason

studies also found that both sub-dimensions of reasons contribute to the prediction of

behaviorally related criteria over and above that explained by control belief (Westaby &

Braithwaite, 2003) and attribute importance concepts (Westaby, 2005).

> *Hypothesis 4:* Reasons (for and against the behavior) will explain variance in intentions
> beyond that explained by global motives, such as attitude toward the behavior, subjective
> norm, and perceived control.

Beliefs and Values → Reasons

Using belief concepts to understand the fundamental basis of behavior has one of the

longest and most enduring traditions in psychology. This tradition is best exemplified by

expectancy-value theory (a.k.a. EV, SEU, or VIE), which continues to have a deep impact on

theoretical advances to this day (Fishbein & Ajzen, 1975, Naylor et al., 1980, Van Eerde and Thierry, 1996, Vroom, 1964) and is also accounted for in traditional behavioral intention models. The basic premise in expectancy-value theory is that the beliefs people hold about expected outcomes and the value of those outcomes have a significant effect on motivational processes. That is, when there are many perceived outcomes of performing a behavior and those outcomes are positively valued, considerable behavioral motivation should result. Scientific research has supported various forms of this premise for nearly a century (Feather, 1982, Wanous et al., 1983). Thus, any general theory of behavior should account for powerful expectancy-value effects. In line with this reasoning, BRT hypothesizes that people's processing of their belief and value information has a direct effect on the reasons people use to explain their anticipated behavior. This hypothesis is also theoretically supported by the theory of explanation-based decision making (Pennington & Hastie, 1988) and reasons theory (Westaby, 2005). These theories generally state that individuals first collect information about decision alternatives and then evaluate the credibility and value of the information when generating their reasons to support the plausibility of the alternatives. Theoretically, the decision alternative that has the most coherent explanation with strongly justified reasons should be selected. Thus, belief and value information, broadly construed, is theorized to serve as a critical precursor to the reasons individuals use to justify and support their anticipated behavior. This broad stance is also consistent with Eccles and Wigfield's (2002) proposition that expectancy beliefs and values "are linked to a broader array of psychological and social/cultural determinants" (p.118).

Hypothesis 5: Beliefs and values will be related to reasons (for and against the behavior).

Beliefs and Values → Global Motives

According to BRT, beliefs and values are also expected to have direct effects on global

motives, without full mediation through reasons. Theoretically, this suggests that reasons may

not be fully activated in some circumstances. This argument is consistent with a variety of

psychological models that propose that automatic processing can circumvent deeper levels of

thought activation (Bargh et al., 1996, Fazio et al., 1995, Lee, Mitchell, Holtom et al., 1999,

Mitchell and Beach, 1990). This is also consistent with Davis et al.'s (1989) notion that some

linkages in behavioral intention models may be circumvented in some circumstances. From

another vantage point, heuristic motives or desires for simplified information processing

(Kahneman et al., 1982, Payne et al., 1988, Simon, 1957) may also cause individuals to activate

global motives without fully processing the reasons that more deeply justify their anticipated

behavior. For example, a more heuristic processing route in BRT could be represented by the

following linkage: belief and value processing → global motives. In contrast, deeper levels of

processing may be represented in BRT with the following fully mediated processing route: belief

and value processing → reasons that justify the anticipated action → global motives.[5]

> *Hypothesis 6:* Beliefs and values will explain variance in global motives beyond that
> explained by reasons (for and against the behavior).

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[5] Another explanation for the direct effect from beliefs to global motives is because reasons may not capture all relevant information. For example, in the case of predicting subjective norm, although a person's reasons may be related to this factor, the person's perceptions about specific normative referents may be more related to the formation of subjective norms than reasons. From a social cognition perspective, the reasons maintained in memory may not always provide a sufficient account of the factors underlying people's decisions (Shafir & LeBoeuf, 2002). This is consistent with Nisbett and Ross's (1980) work illustrating that people may not be consciously aware of all the reasons underlying their actions. In BRT, empirical support for this argument would be manifested if normative beliefs, for example, have a direct effect on subjective norms (without mediation through reasons) and subjective norms have a direct effect on intention unaccounted for by reasons. This suggests that reasons were unable to account for other underlying determinants.

Post Hoc Processing

Recognizing the importance of behavior in a temporal context (McGrath, 1988), the final theoretical proposition in BRT suggests that reasons can be used to support, distort, or rationalize behavior once behaviors are enacted. Furthermore, consistent with dissonance theory (Festinger, 1957, Wicklund & Brehm, 1998), BRT hypothesizes that individuals will strengthen their reasons to support their action once they start engaging in the behavior. Theoretically, this would reduce feelings of psychological discomfort because reasons would become more congruous with actions over time. These temporal effects are formally denoted in Figure 2 as the reciprocal path from behavior back to reasons.[6] Including this linkage also allows BRT to theoretically account for additional information processing pathways. For example, while some people may fully process all components in BRT sequentially, others may skip processes and use only post hoc reasoned justifications when needed (e.g., rationalizing). To illustrate schematically, such processing could engage only the following pathways in BRT: global motives → intentions → behavior → post hoc justified reasons → potential escalation of behavioral commitment (Phillips, 2002, Schoorman & Holahan, 1996).

Finally, although reasons are presumed to help stabilize behavior over time through justification and defense mechanisms, BRT also presumes that they serve an important role in the behavioral change process, especially when new "shocks" to the psychological system are encountered, drawing from Lee's terminology in the unfolding model of turnover (Lee & Mitchell, 1994, Lee, Mitchell, & Sablynski, 1999). That is, BRT hypothesizes that people may interrupt their ongoing behavioral pursuits when new information is presented that causes them

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[6] Reciprocal linkages are consistent with other models that propose reciprocal pathways between psychological constructs and behavior (Bagozzi, Bergami et al., 2003, Venkatesh et al., 2003). Moreover, see Harrison's (1995) discussion about how post-behavior feedback loops may also influence the relative weights of global motives in the context of the theory of episodic volunteer motivation.

to question their reasons (Clary et al., 1998, Millar & Millar, 1990). At this time, their current

reasons may be insufficient to counter-argue the new information encountered, thereby making

them uncertain about their intentions or ongoing behavior (Burnstein & Vinokur, 1977, Cialdini

et al., 1992, Galotti, 1989). For example, an employee may suddenly consider quitting his or her

job because of a new reconfiguration in the company's benefit plan, which was the employee's

primary reason for joining the company. Consequently, belief, value, and reason processing

could be re-engaged to form a new course of behavior (Antaki, 1994, Thompson & Hunt, 1996).

Although BRT theoretically describes the role that reasons often serve to support people's

behavior post hoc, this paper focuses on the predictive aspects of the theory. This will also

provide a more rigorous initial test of the theory rather than using results from post hoc reason

concepts.

Overview of Studies

BRT hypotheses were tested in the context of employee turnover and relocation decisions

for theoretical and applied reasons. For instance, employee turnover is a serious concern for

organizations, given corollary costs in recruitment, selection, and training, not to mention losses

in knowledge and quality of customer relationships. Moreover, examining a richer theoretical

framework in the context of employee turnover responds to Lee and Mitchell's (1994)

observation that "The existing models of employee turnover are too simple; leaving an

organization can take place in many different ways" (p. 84). Understanding relocation motives is

also important because "… more firms are sending more employees on international

assignments" (Shaffer & Harrison, 2001, p. 238). To add, because of concerns about the safety of

employees in certain relocation destinations, being able to understand employees' willingness to

relocate will likely remain an important issue for organizations. Multiple studies examined each

of these behaviors in this paper: Study 1 tested the construct and predictive validity of reasons

(for and against the behavior) in relation to global motives for the prediction of turnover. Study 2

experimentally manipulated global motives and reasons on turnover intention. Study 3 used the

correlational method to test hypothesized relationships between traditional belief concepts,

reasons, global motives, and intentions in the context of overseas relocations. Finally, Study 4

experimentally manipulated beliefs and reasons to examine their impact on global motives and

intentions to relocate.

((**METHOD NOTE:** See publication version for complete method sections and empirical results from Study 1 to Study 4 with properly formatted tables and figures. Also see other publications on BRT for alternative ways to measure reasons, such as using more differentiated 4 or 5-point scales (e.g., "Not at all, Somewhat, Moderate, Strong, Very strong). Study 3 in this paper, as illustrated below, provides a simple 3-point version)):

Study 3

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Reasons

Because reasons are theoretically presumed to capture pro/con, benefit/cost, and facilitator/obstacle explanations, the same categories derived from the elicitation study were subsumed as either reasons for or reasons against performing the behavior. That is, reasons for and against the behavior were assessed on the categories from the elicitation study denoted by "(+)" and "(−)" symbols, respectively. To assess "reasons for," participants were first presented with the following statement: My reasons for relocating overseas, if my company asks. After this, participants rated the extent to which each of the "(+)" categories represented their reasons on a 3-point scale (1 = not a reason, 2 = a reason, and 3 = a strong reason; α = .81). To assess "reasons against," participants were first provided with the appropriate header (i.e., My reasons against relocating overseas, if my company asks), after which they rated the "(−)" reasons on the same three-point reason scale (α = .74).

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((**NOTE**: See publication version for Study 4 experiment as well))

General Discussion

The purpose of this research was to develop and test behavioral reasoning theory (BRT). The overarching proposition in the theory states that reasons serve as important linkages between people's beliefs, global motives (e.g., attitudes, subjective norms, and perceived control), intentions, and behavior. Results supported BRT hypotheses across multiple studies. Study 1 found that reasons (for and against the behavior) were differentiated from global motives and intentions in traditional behavioral intention models. Reasons also predicted each of the global motive factors, as hypothesized. Furthermore, reasons contributed to the prediction of intentions beyond that explained by global motives. To augment these correlational findings with experimental methodology, Study 2 demonstrated that individuals used information from both global motives and reasons to form their intentions. However, these two studies were theoretically limited because they did not compare reasons to traditional belief concepts. Therefore, Study 3 and Study 4 compared the validity of reasons to traditional belief concepts using correlational and experimental methods, respectively. As predicted, results from these follow-up studies demonstrated that reasons contributed to the prediction of global motives and intentions beyond that explained by traditional belief concepts, thereby providing additional validity for the reason construct.

BRT also predicts that beliefs and values serve as important antecedents of reasons. Results supported this hypothesis in that traditional belief and value concepts were related to both reasons for and against performing the behavior (See Study 3). Interestingly, belief interaction terms more effectively predicted reasons for the behavior than reasons against the behavior. This may suggest that multiplicative models of judgment and decision making may not generalize as easily to predicting people's explanations for not engaging in behavior. If replicated

in future studies, additional work will need to examine the theoretical mechanisms driving these potential effects.

As for depth of processing issues, BRT hypothesizes that individuals may not always activate deeper reason justification mechanisms, but instead may automatically generate global motive perceptions from belief stimuli alone. Hence, direct effects from beliefs to global motives are expected in BRT. In support of this hypothesis, results demonstrated that traditional belief concepts have direct linkages to global motives and intentions, unaccounted for by reasons (See Study 3). Future research will need to further explore the linkages between beliefs, reasons, and global motives during the decision-making process. Moreover, because this study focused exclusively on predictive aspects of BRT, research needs to examine important post hoc effects, especially in terms of how individuals use or change their reasons over time to support, distort, or rationalize their behavioral commitments (Schoorman & Holahan, 1996). This could have implications for how individuals can learn from their decision making and behavior (Phillips, 2002).

In a related vein, an important line of future research will be to examine the potential mediating role of reasons between past behavior and future behavior. Research has demonstrated that past behavior is often a direct predictor of future behavior, unmediated by components in behavioral intention models (Betsch et al., 2004, Conner & Abraham, 2001). However, the psychological mechanisms explaining this relationship have not been well articulated beyond habitualization (Triandis, 1977, Wood et al., 2005) and automaticity conceptualizations (Bargh et al., 1996). BRT can provide an additional theoretical perspective. According to BRT, once a behavior is executed, reasons should become strengthened through post-decision dissonance processes. These strengthened post hoc reasons would then serve to further justify, defend, and

support the concurrent behavior, which, in turn, could escalate behavioral commitment over time. If so, reasons may more strongly mediate the relationship between past behavior and future behavior than currently mediated by constructs in traditional behavioral intention models. To examine these issues, future research will need to carefully conduct longitudinal studies that measure theoretical components in BRT over multiple periods of time.

Results from this study also raise concerns for researchers who use only "reasons for" a behavior as the focus in their investigations, which is a frequent practice (Westaby, Fishbein, & Aherin, 1997). This is because all four studies conducted in this paper demonstrated that both "reasons for" and "reasons against" a behavior were needed to more fully understand behavioral mechanisms. Global motives and traditional belief concepts (to a lesser extent) also had direct effects on intentions, unaccounted for by reasons alone. Thus, researchers need to assess a wider array of factors in BRT and not just reasons, if their goal is to provide a comprehensive understanding of intentions and behavior.

Furthermore, it may be useful in future research to extend BRT by examining additional contextual antecedents of behavior, based upon well-grounded theory and research. To illustrate, Van Hooft, Born, Taris, Van der Flier, & Blonk (2004) hypothesized that job satisfaction, organizational commitment, and financial need also serve as antecedents of job search attitudes in the context of the theory of planned behavior. Although traditional models consider these factors "external variables" (Ajzen & Fishbein, 1980), it is likely that a deeper scientific understanding of behavior would occur through the inclusion of external variables that are theoretically relevant to the behavior under investigation. Pragmatically, results from such analyses could provide broader implications for intervention at different levels and lenses of analysis. However, at the same time, researchers must be sensitive to the dilemmatic cost of

losing parsimony and increasing survey length in such extensions (McGrath, Martin, & Kulka, 1982). Hence, social scientists need to carefully consider what are the most theoretically and empirically justified variables to consider in any extension. There are many behaviors that such BRT extensions could apply, given their frequent examination, such as job turnover, volunteerism, and organ donation, to mention just a few.

Even though this study provided tentative support for linkages proposed in BRT, there was still considerable variance in intentions and behavior that was unaccounted for in this study. Thus, additional variables should be investigated in future research, such as decision importance (Bagozzi, Dholakia, & Basuroy, 2003), moral obligation (Harrison, 1995), and implementation intentions (Gollwitzer, 1999). In addition, future research needs to examine the conditions under which sub-distinctions of beliefs and reasons, such as intrinsic and extrinsic classifications (Venkatesh & Johnson, 2002, Westaby et al., 2005), help explain unique variance in behavioral criteria (Maertz & Campion, 2004). Furthermore, given that recent research has shown moderating effects between demographic variables and constructs in behavioral intention models, future research needs to examine moderating conditions in BRT (Parker et al., 1992, Venkatesh et al., 2003). Methodologically, future research also needs to further refine reason scales in efforts to maximize their construct and predictive validity as well as examine the interface between behavioral reasons and superordinate goals (Bagozzi, Bergami et al., 2003). In quantitative tests, researchers should also ensure that beliefs, reasons, and global motives are assessed prior to intentions when testing predictive assumptions in BRT. Furthermore, meta-analytic research needs to assess the extent to which additional factors represent global motives that generalize across behavioral domains.

Although BRT is clearly a descriptive model of human behavior and does not presume to portray normatively correct reasoning processes, future research may benefit from examining whether model components map onto objective indicators. For example, researchers could assess whether there is a discrepancy between espoused reasons and objective data supporting those reasons. To illustrate, is an employee's reason for leaving an organization (e.g., fear of future layoffs) grounded in organizational reality (e.g., does management have concrete plans for downsizing)? Such an examination could also inform change interventions. That is, when individual behavior is driven by perceptions that are not grounded in reality, simple feedback about the objective data may be sufficient to generate behavioral change.

Qualitative elicitation research also needs to examine similarities and differences between traditional belief elicitation questions and reason elicitation questions. For instance, Westaby (1995) found that information derived from reason elicitation questions (e.g., what are your reasons for and against doing x) resulted in qualitative categories that overlapped with both behavioral belief and control belief elicitation questions. As an example, for the blood donation behavior, the category of "helping people in need" was found to be qualitatively represented as a reason, behavioral belief, and a control belief. Given the importance of elicitation research for structuring quantitative survey items in BRT, it is important for future research to further examine the content and face validity of belief and reason measures using rigorous qualitative methods, such as protocol analysis (Ericsson & Simon, 1993). Researchers should also consider soliciting the advice from subject matter experts when refining belief and reason categories used in main quantitative surveys. This becomes even more significant when results from the behavioral investigation are used to guide policy and behavioral change interventions.

The results from this study also provided practical insight into the mechanisms underlying employees' decisions about turnover and relocation. In the context of these decisions, results showed that employees used their beliefs and values to form both their reasons and global motives. Employees also used their reasons to directly influence their global motives and intentions. Global motives, in turn, influenced employees' intentions to stay in their company or to relocate, which fully supports past behavioral intention models. The final link in the theory was also supported because employees' intentions were related to their behavior. Thus, this study showed that BRT components explained a rich set of linkages underlying employees' turnover and relocation decisions. These results also have implications for management. In accordance with past theory, results suggest that management should continue to promote employees' attitudes, subjective norms, and perceived control over the behaviors they are trying to promote, including retention and relocation decisions. In addition, results suggested that providing strong reasons for the behaviors (and mitigating reasons against the behaviors) would further fuel motivation. Thus, management would be well served by seeking comprehensive information about BRT components, including the rich sets of reasons underlying behavior. Such information could be collected through a number of channels, such as management-employee conversations, focus group discussions, and/or formal survey initiatives. This information could then provide substantive input into structuring interventions designed to change intentions and behavior. Also, given the importance of reason-based explanations for behavioral motivation, management should strive to use convincing arguments, connected to clear and coherent explanations when trying to promote behavioral change.

   In conclusion, this study tested behavioral reasoning theory, which combined traditional concepts from behavioral intention models with reason concepts from the social and decision sciences. The potential value of the theory comes from its ability to not only explain unique variance in intentions, but also to describe how and why reasons serve as new linkages between people's beliefs, global motives, intentions, and behavior. Future research is needed to further test the theory across diverse behavioral domains.
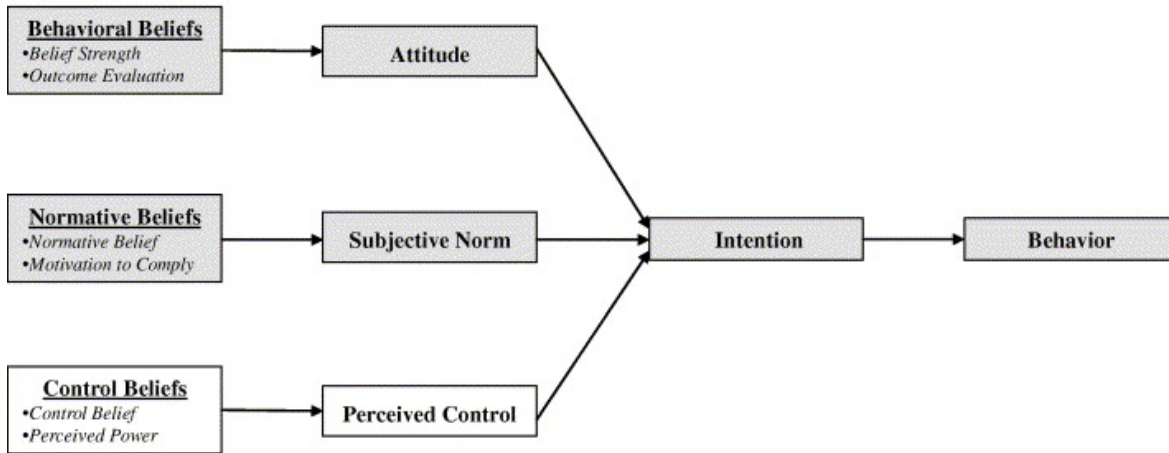
Figure 1. Traditional behavioral intention models. The theory of planned behavior is represented by all boxes and arrows. The theory of reasoned action is represented by the nested constructs with shading.
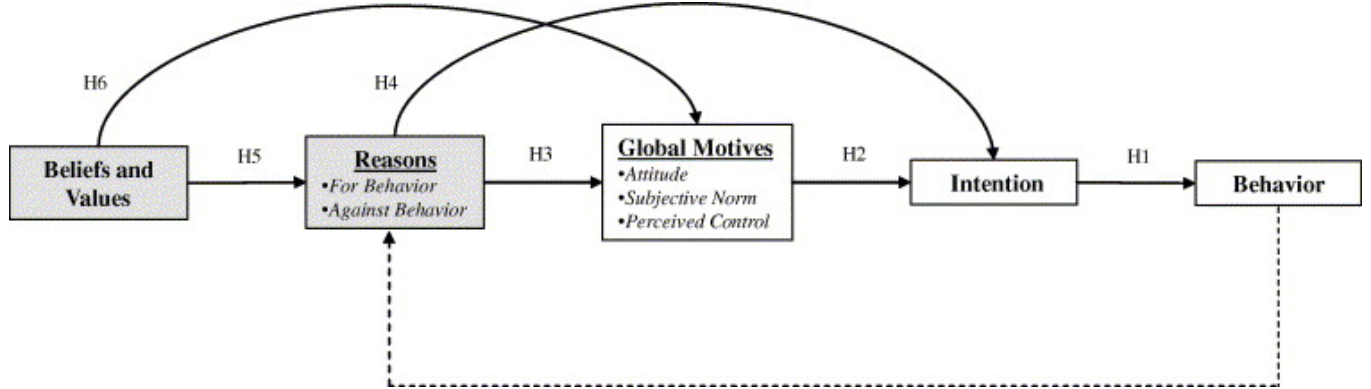
Figure 2. Behavioral reasoning theory. Shaded boxes denote context-specific cognitions used to form and sustain global motives, intentions, and behavior. H = theoretical hypotheses. Study 1 tested H1–H4 using the correlational method. Study 2 examined H2 and H4 via the experimental method. Study 3 tested H2–H6 through the correlational method. Study 4 evaluated H3 and H6 via the experimental method.
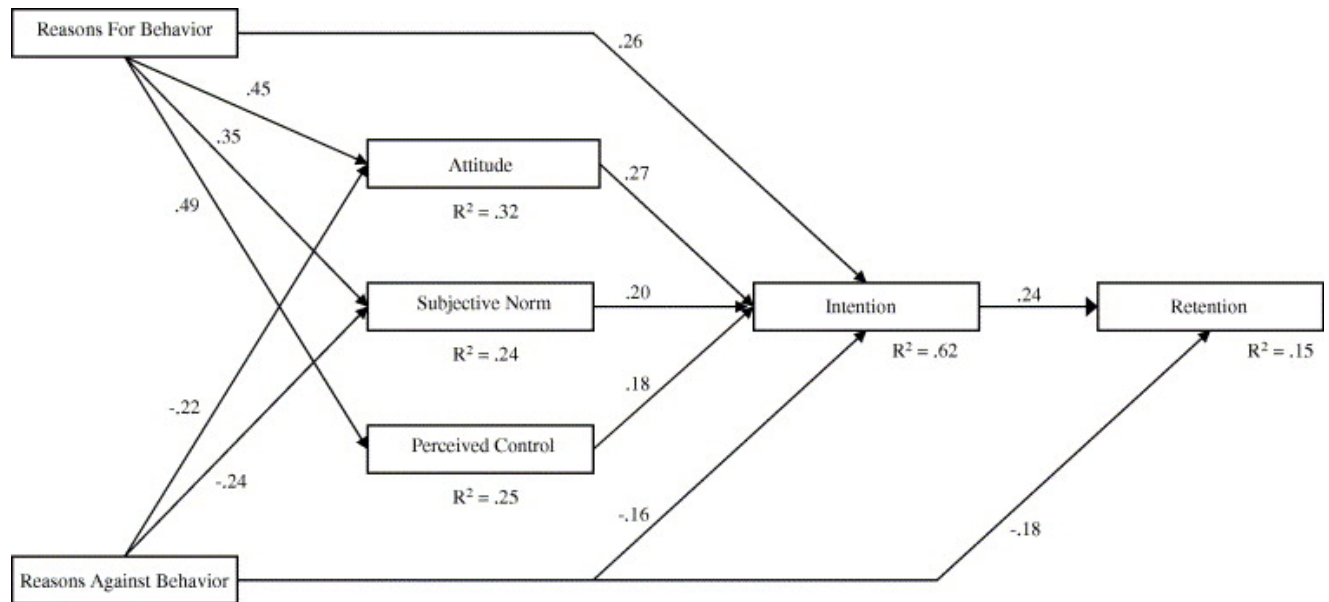
Figure 3. Standardized path coefficients in Study 1. Displayed coefficients are significant at p < .01.

((See publication version for all properly formatted tables and figures))