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The impact of implicit self-theories and loss salience on financial risk☆

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ABSTRACT

The current research explores the influence of implicit self-theories on decisions involving financial risk. Building from research on self-signaling, we explore how loss salience impacts the relationship between an individual's self-theory and financial risk choice. We show that entity theorists are *less* risk-seeking under conditions in which a possible monetary loss is more salient (i.e. presented less ambiguously, Studies 1a and 1b). We demonstrate a reversal of this effect by showing that entity theorists are *more* risk-seeking when a possible loss is less salient (i.e. presented more ambiguously, Studies 2a and 2b). Study 3 introduces tolerance of ambiguity as a mediating factor in the relationship between implicit self-theory and financial risk-taking, such that entity theorists are more tolerant of ambiguity, leading them to accept more risk under conditions where loss is ambiguous. We conclude with discussion for self-theory research, transformative services research, managerial decision-making, and consumer well-being.

1. Introduction

The importance of making sound financial decisions in securing long-term economic well-being is rarely disputed, as establishing healthy saving and investing habits can move one closer to achieving financial security and stability (Winterich & Nenkov, 2015). Imperative in this process is financial risk, as the amount of risk one is willing to accept affects one's ability to appropriately invest for the future (Nuttall & Jahnke, 2000). Thus, it is not surprising that the process by which consumers make decisions involving financial risk has received increased emphasis from scholars, policy makers, and practitioners, as over half of US consumers rate their financial situation as either “poor” or “fair” (Gallup, 2014) and 60% of households have less than $25,000 in total savings and investments (Greene & Monga, 2013). Accordingly, there is a need to better understand the link between one's personal traits and the risk-related decisions that ultimately impact financial well-being (Brüggen, Hogreve, Holmlund, Kabadayi, & Löfgren, 2017). The current research addresses this call by exploring the role of implicit self-theories in the acceptance of financial risk.

Implicit self-theories are fundamental underlying beliefs about the nature of human traits and characteristics such as intelligence, ability, or personality (Dweck & Leggett, 1988; Murphy & Dweck, 2016). Particularly germane to the current research are incremental and entity self-theories, which differ in belief about the development and transformation of personal traits. Specifically, incremental theorists believe traits can be developed with effort, while entity theorists believe a person's attributes are unlikely to change, regardless of training or practice. Research finds self-theories to be context-dependent and situationally activated (Dweck, Chiu, & Hong, 1995; Nussbaum & Dweck, 2008); while individuals frequently adopt one prevailing self-theory, they may also subscribe to both beliefs simultaneously – albeit to different degrees and under different conditions (Dweck et al., 1995; Murphy & Dweck, 2016; Nussbaum & Dweck, 2008; Yorkston, Nunes, & Matta, 2010). For instance, it is possible that a person holds an incremental theory about his or her quantitative skills but an entity theory about their public speaking abilities, or an incremental view about the nature of intelligence but an entity view about morality.

Though these beliefs exert considerable influence on consumer motivation, judgment, and decision-making (Dweck, 1986), little is known about the effect of implicit self-theories in the important domain of financial decision-making. In the only observed research in the domain, Rai and Lin (2019) show that incremental theorists are more receptive to positive outcomes, leading them to be promotion-focused (Higgins, 1997) and, thus, more likely to prefer risk-seeking

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investments. Conversely, because of their belief in trait stability, entity theorists are more sensitive to negative outcomes, making them prevention-focused and more likely to prefer risk-averse investments. Going beyond regulatory focus as a driver of financial risk, the objective of the current research is to extend the work of Rai and Lin (2019) by identifying loss salience and tolerance of ambiguity as novel factors influencing the relationship between a person's self-theory and financial risk-taking.

Building from research showing that self-theories impact the attention given to environmental cues (Miller, Burgoon, & Hall, 2007), we expect incremental and entity theorists to respond differently to the salience of loss in a financial decision-making context, leading to variations in the acceptance of risk. Particularly, we contend that when potential loss is made salient, entity theorists (vs. incremental theorists) will select less risky options given their heightened sensitivity to failure and appearing unsuccessful (Blackwell, Trzesniewski, & Dweck, 2007; Elliott & Dweck, 1988). When the possibility of loss is explicit, threats of failure and self-deficiency will be amplified among entity theorists, leading them to choose less risk as a way of self-protection and avoiding perceived deficiencies (Hong, Chiu, Dweck, Lin, & Wan, 1999). Conversely, under conditions where loss is *not* made explicit (i.e. with greater ambiguity), we argue that entity theorists are actually *more* risk-accepting, based on their desire to self-signal positive traits (Blackwell et al., 2007). When the possibility of loss is less salient, entity theorists are less threatened in efforts to signal competency and success (Dweck & Leggett, 1988) and will therefore prefer riskier options.

This anticipated effect of loss salience suggests that one's ability to cope with ambiguity in the decision-making context plays an important role in the acceptance of financial risk. As such, we contend that tolerance of ambiguity (Budner, 1962; Dunning, Meyerowitz, & Holzberg, 1989) intervenes in this relationship between self-theory and financial risk-taking. Based on the tendency of incremental and entity theorists to differentially interpret and incorporate information into their decision-making process (Levy, Plaks, Hong, Chiu, & Dweck, 2001; Plaks, Stroessner, Dweck, & Sherman, 2001), we predict that a greater tolerance for ambiguous information will lead entity theorists to be more risk-accepting when loss is more ambiguous (i.e. less salient). This is in accordance with entity theorists' tendency to form inferences based on limited information (Miller et al., 2007) and be overconfident in these judgments (Ehrlinger, Mitchum, & Dweck, 2016).

We present five studies in support of these predictions. Studies 1a and 1b show that entity theorists (vs. incremental theorists) are less risk-accepting when the possibility of financial loss is made more salient. Studies 2a and 2b demonstrate a reversal of this effect, such that entity theorists are *more* risk-accepting when the chance for loss is less salient. Given this effect of loss salience on risk behavior, Study 3 introduces tolerance of ambiguity as a mediating process in the relationship between self-theory and financial risk-taking, with entity theorists displaying a greater tolerance of ambiguity.

Using different samples, methods of assessing self-theory, and response formats, our work tests conditions under which self-theories impact financial risk-taking. In so doing, we extend recent work in this domain (Rai & Lin, 2019) and answer the call by researchers for a better understanding of the impact of self-theories on consumers' financial decisions (Murphy & Dweck, 2016). Specifically, the present work offers three significant theoretical contributions to the self-theory literature. First, we connect belief in trait malleability to the presentation of financial risk (van Schie & van Der Pligt, 1995), introducing loss salience as a boundary condition to the influence of self-theory on risk-taking. Second, and similarly, our work explores how individuals holding different self-theories respond to conditions of monetary loss, showing that the tendency among entity theorists to self-signal (e.g. Blackwell et al., 2007) extends to decisions where the possibility for monetary loss is less salient. Third, this research brings together perspectives on self-theories and tolerance of ambiguity, demonstrating that tolerance of ambiguity mediates the relationship between self-theory and financial risk-taking, with entity theorists more accepting of ambiguity when making financial decisions.

Practically, we offer new insight into the relationship between risk sensitivity and financial guidance, specifically the communication of risk, and corresponding contribution to the Transformative Services Research (TSR; Anderson et al., 2013) agenda for improving consumer well-being through the financial services process. Consumer welfare largely depends on the soundness of financial decisions (Brüggen et al., 2017; Mende & Van Doorn, 2015). However, many consumers lack the necessary knowledge or skills and instead rely on advice from financial professionals, who oftentimes have a fiduciary duty to their clients (Kim, Garman, & Sorhaindo, 2003). Our findings provide marketing and financial professionals with additional insight into the assessment and communication of risk and uncertainty. In particular, financial advisors may wish to include a person's implicit self-theory in the risk profile process to better determine how to present to riskiness of an investment option in order to help the client achieve their financial goals and well-being.

In sum, we contribute to the important work being conducted to better understand the relationship between decision-making and consumer behavior via the connection between self-theory and financial risk-taking. We begin with a discussion of self-theories and their role in consumer behavior.

2. Conceptual overview

2.1. Implicit self-theories

Two of the most widely studied implicit self-theories are incremental and entity theories, distinguishable by a belief in the malleability of human attributes. Individuals who endorse an incremental mindset believe traits such as personality, intelligence, and even morality are malleable and can be developed with effort, practice, or corrective feedback (Dweck, 1999; Dweck & Bempechat, 1983; Dweck & Leggett, 1988; Heslin, Latham, & VandeWalle, 2005; Hong et al., 1999). According to this view, anyone can be good at practically anything, as competence is primarily due to one's effortful actions. As such, incremental theorists are learning-oriented (Blackwell et al., 2007; Dweck & Leggett, 1988; Erdley, Loomis, Cain, & Dumas-Hines, 1997) and prone to embracing challenges and opportunities that allow for the development of skills and abilities (Hong et al., 1999). Struggles are interpreted not as a consequence of deficiency (and therefore avoided), but rather seen as pathways for learning and self-enhancement (Dweck & Leggett, 1988). Accordingly, these individuals seek self-improvement opportunities regardless of whether perceived ability is high or low (Detweiler-Bedell & Detweiler-Bedell, 2016).

Conversely, individuals who subscribe to an entity mindset believe traits and abilities are innate and not amenable to change, regardless of effort or practice (Molden & Dweck, 2006). According to this perspective, a person's skills and competencies are inherent, relatively static, and unchanging. If much effort is required for improvement or success, the requisite abilities are believed to be permanently lacking (Grant & Dweck, 2003; Middleton & Midgley, 1997) and improvement is not possible. It is this belief in fixed, immutable traits that causes entity-focused individuals to be performance-oriented (Blackwell et al., 2007; Dweck & Leggett, 1988; Erdley et al., 1997) and apprehensive about embracing challenges and goals in which deficiencies might be recognized (Dweck & Molden, 2005). These individuals typically prefer less challenging objectives in hopes of concealing shortcomings and avoiding negative outcomes and feedback (Dunning, 1995; Elliott & Dweck, 1988). Achieving easier objectives allows entity theorists to display existent competencies (Hong et al., 1999) and earn favorable judgments and evaluations from others (Dweck & Leggett, 1988; Erdley et al., 1997; Nussbaum & Dweck, 2008).

2.2. Signaling, loss salience, and financial decisions

Noting these differences, and that entity-focused individuals are particularly motivated by a need to demonstrate positive self-attributes, and yet are apprehensive about receiving criticism and negative feedback, the question arises as to how they go about earning favorable recognition. One way is by self-signaling, or intentionally conveying cues about the self to others (Andreoni & Bernheim, 2009; Spence, 2002). Showcasing positive qualities allows entity theorists to communicate existing strengths and capabilities (Dweck & Leggett, 1988; Park & John, 2010, 2018), thereby influencing the impressions and beliefs of others (Leary & Kowalski, 1990). In contrast, incremental-focused individuals are more intrinsically motivated and, thus, tend to forgo such external displays, preferring instead, goals and tasks that offer learning and self-development opportunities (Erdley et al., 1997). For example, college students endorsing an entity mindset prefer less rigorous and challenging courses in which they are likely to receive a high grade, even if these courses do not improve their learning or understanding (Dweck & Leggett, 1988; Elliott & Dweck, 1988). Rather, earning a high mark (in an easier course) signals proficiency and skill. Conversely, students with an incremental mindset embrace challenging classes, viewing the threat of failure as an opportunity for self-improvement and learning rather than a source for signaling self-traits.

Despite the wealth of research demonstrating the use of signaling among entity theorists, research linking it with financial risk-taking is surprisingly limited, particularly given the opportunities that financial resources offer. For example, the possession of money invokes images of power, strength, and self-control (Belk & Wallendorf, 1990; Tong, Zheng, & Zhao, 2013) while helping one avoid negative evaluations from others (Zhou, Vohs, & Baumeister, 2009). Recognizing that money affords opportunities to signal positive qualities, we complement the work of Rai and Lin (2019) by offering an additional explanation for the effect of self-theory on financial decision-making based on signaling and loss salience. Specifically, we argue that salience of a possible loss in a financial decision will impact an individual's propensity for risk, particularly in regard to one's self-theory. This argument is based on previous research (Dweck, 1996; Miller et al., 2007) showing that entity and incremental self-theories distinctly affect the attention given to cues and the judgments formed as a result of these cues.

Extant research displays the effects of outcome salience on decision-making. Bordalo, Gennaioli, and Shleifer (2012) show that increasing attention to a potential outcome changes the weighting of this outcome such that the salient option receives disproportionate emphasis and an increased likelihood of acceptance. This is especially true within risk judgments, as individuals are more risk-seeking when a choice's upside is salient, and more risk-averse when the downside is salient (Bordalo et al., 2012). Similarly, Eckel and Grossman (2002) show that increasing the salience of a possible loss minimizes the effect of an alternative gain option, decreasing the acceptance of risk. Importantly, van Schie and van Der Pligt (1995) distinguish outcome salience from the traditional gain/loss framing effects of prospect theory (Kahneman & Tversky, 1979; Tversky & Kahneman, 1981). These authors show that emphasizing the probability of a potential option increases the salience of that outcome, impacting decisional preference beyond that of a simple gain/loss frame. Thus, a key to understanding the acceptance of risk is how salient the prospect of loss is in the mind of an individual. We expect this outcome salience, particularly loss salience, to provide a differential effect on financial risk preference among entity and incremental theorists, based on a signaling explanation.

From an entity perspective, the salience of a monetary loss should reduce the preference for higher risk, as suffering such loss would jeopardize the positive cues they wish to signal. Indeed, entity-focused (vs. incremental-focused) individuals are likely to be more sensitive to possible loss and subsequent negative feedback (Detweiler-Bedell & Detweiler-Bedell, 2016; Dunning, 1995), leading them to avoid options with explicit negative outcomes. In contrast, incremental theorists are more accepting of mistakes and failures (Blackwell et al., 2007; Mueller & Dweck, 1998) and as such, explicit outcomes – even negative ones – are seen as part of a process that provides direction on increasing competency and success (Blackwell et al., 2007; Dweck & Leggett, 1988). Therefore, we expect entity-focused individuals to prefer less financial risk compared to incremental theorists when monetary loss is salient. Thus:

H1. Entity (incremental) theorists will be less (more) likely to accept financial risk when monetary loss is salient.

However, we expect this effect to be reversed under conditions where potential loss is not made salient. When loss is less salient and more ambiguous, we anticipate entity theorists will be more risk-accepting due to their propensity to signal positive attributes. Indeed, the chance of earning a higher monetary return should motivate the acceptance of more risk, as a higher return will signal competence and success (Furnham & Argyle, 1998). Under such conditions where loss is ambiguous and left open to interpretation, entity theorists are more likely to overweight the likelihood of success and focus on the potential upside, as this outcome would provide them a favorable evaluation (Dweck & Leggett, 1988; Nussbaum & Dweck, 2008). We base this expectation on previous research showing entity theorists to be more confident with decisions based on limited information (Ehrlinger et al., 2016), while also interpreting and construing such information in a manner that reflects their strengths and expectancies (Mishra, Mishra, & Shiv, 2011). Conversely, the absence of salient loss outcomes does not allow incremental theorists the opportunity to integrate such loss into their self-development strategy (Hong et al., 1999), leading them to accept less risk when loss is not salient. Thus, we predict:

H2. Entity (incremental) theorists will be more (less) likely to accept financial risk when monetary loss is not salient.

2.3. Mediating role of tolerance of ambiguity

With the hypothesized influence of loss salience on the acceptance of financial risk, we now seek an underlying process to aid in our understanding of these effects. To do so, we look to the role of tolerance of ambiguity, as many financial decisions involve ambiguous or vague elements that frequently change in response to market conditions (Holton, 2004); what seemed like a promising decision one day can quickly turn into a loss the next. The ability to cope with such financial uncertainty and ambiguity is a characteristic that differs among individuals. Defined as the extent to which individuals feel threatened by uncertain events, outcomes, and information (Budner, 1962), tolerance of ambiguity is directly related to the financial decision-making process (e.g., Grable, 2000; Tymula, Belmaker, Ruderman, Glimcher, & Levy, 2013). However, researchers have yet to establish how tolerance for ambiguity relates to one's self-theory and financial risk-taking.

A unique crossover exists between ambiguity and implicit theories, as self-theories are associated with cognitive functioning and the intake of information from one's environment (Gervey, Chiu, Hong, & Dweck, 1999). Furthermore, self-theories affect attention processes and subsequent decisional strategies when dealing with incoming information (Dweck, Mangels, Good, Dai, & Sternberg, 2004). In short, self-theories shape the way information is recognized, categorized, interpreted, and integrated into decision-making (Avolio, 2007). Considering the role that self-theories play in incorporating information into the decision-making process, we argue that they are associated with the evaluation and treatment of ambiguous information.

Though research has not formally established the link between implicit self-theories and tolerance of ambiguity, existing research supports the connection. For example, Eberhardt, Dasgupta, and Banaszynski (2003) experimentally presented individuals with purposefully ambiguous visual stimuli and tested the impact on perception and judgment, finding that entity and incremental theorists attend to

different properties of the information presented. This is in line with other work (i.e. Butler, 2000) showing that incremental and entity theorists interpret ambiguous feedback differently, leading to distinct judgments about the information. Similarly, Oshio (2009) suggests that self-theory is related to one's interpretation of ambiguous information but does not empirically establish this relationship, which we do in this work.

Given the impact of implicit self-theory on information processing and past research suggesting a link with ambiguity, it is plausible that a person's self-theory impacts how they evaluate and treat ambiguous information. Recognizing the inherent vagueness involved in many financial decisions (Grable, 2000; Holton, 2004), we argue that one's tolerance for ambiguous information will intervene in the relationship between self-theory and financial risk-taking, as willingness to accommodate ambiguous details will impact risk preference. We suggest that one's self-theory will dictate the acceptance of ambiguous information, implying that tolerance of ambiguity mediates the effect of self-theory on financial risk-taking:

H3. Tolerance of ambiguity will mediate the effect of implicit self-theory on financial risk-taking.

Additionally, we seek to identify directionality for this mediating process based on differences in tolerance for ambiguous stimuli between incremental and entity theorists. Generally, when people encounter ambiguous information, compared to more precise and clear-cut stimuli, they are oftentimes more optimistic and hopeful in their interpretations (Dunning et al., 1989; Felson, 1981). This vagueness allows individuals to construe and distort information so as to generate positive outcome expectancies and reflect one's strengths and expectations (Mishra et al., 2011).

This penchant for embracing and interpreting ambiguous information in a manner that supports and reflects one's competencies is akin to the tendency of entity theorists to engage in practices that project their positive qualities. This suggests that entity theorists will be particularly likely to tolerate ambiguous stimuli in the hope of attaining a positive outcome and, in turn, projecting a positive self-image. Previous research supports this expectation as entity theorists (vs. incremental theorists) are more likely to make decisions based on limited information (Chiu, Hong, & Dweck, 1997). Indeed, entity theorists form inferences on the basis of limited observations (Miller et al., 2007) and maintain a greater degree of confidence in these judgments (Ehrlinger et al., 2016). In the context of financial risk-taking, making a possible loss less salient (and thus, more ambiguous) should increase the tendency for entity theorists to interpret the information in such a way that conforms to a desired image.

That incremental and entity theorists might differentially incorporate ambiguous information into their decisions is supported by a wealth of prior research demonstrating that the manner in which information is interpreted varies by mindset (Levy et al., 2001; Plaks et al., 2001). Thus, it is expected that the interpretation and tolerance of ambiguous information will differ as a function of mindset. We have so far predicted that entity theorists will prefer less risk when a possible loss is presented less ambiguously (i.e. more salient; Hypothesis 1) but prefer more risk when a possible loss is presented more ambiguously (i.e. less salient; Hypothesis 2). These predictions suggest that when making financial decisions, entity theorists will be more tolerant of financial options that involve ambiguous elements but provide an opportunity to signal positive self-characteristics (e.g., a higher monetary payoff). Accordingly, we predict:

H4. Entity (incremental) theorists will be more (less) tolerant of ambiguous financial outcomes.

We test these hypotheses in a set of five studies.

3. Study 1a: effect of self-theory on financial decisions with salient monetary loss

The purpose of Study 1a is to test the relationship between implicit self-theory and risk-taking when the possibility for monetary loss is salient by virtue of being explicitly presented.

3.1. Method and measures

3.1.1. Participants and procedure

Participants were one hundred forty-two (n = 142) undergraduate students (56% female) at a large southeastern U.S. university who were invited to participate in exchange for course credit.

3.1.2. Mindset manipulation and manipulation checks

Participants were randomly assigned to one of two experimental conditions based on self-theory (entity or incremental). In both conditions participants read an article (based on Chiu et al., 1997) that reported scientific findings in support of either an entity theory or an incremental theory of human traits. After reading their respective article, participants were then asked to report their opinions about the passage in terms of presentation, organization, clarity, and ease of understanding (Levy, Stroessner, & Dweck, 1998; Park & John, 2010).

As a manipulation check, we averaged participants' responses to an eight-item Implicit Persons Theory Measure (Levy et al., 1998). All items were on a 7-point scale anchored by "Strongly Disagree" and "Strongly Agree." Participants responded to four statements representative of incremental self-theory (e.g., "*Everyone, no matter who they are, can significantly change their basic characteristics*") and four statements representative of entity self-theory (e.g., "*The kind of person someone is, is something basic about them, and it can't be changed very much*"). Responses were coded such that higher numbers represent agreement with incremental theory. The passages primed the intended theory successfully, with participants in the incremental condition reporting significantly more incremental beliefs ($M_{\text{Incremental}}$ = 4.25, SD = 1.39) compared to those in the entity condition [(M_{Entity} = 3.36, SD = 1.21), $F_{(1,\ 140)}$ = 16.32, p < .001].

3.1.3. Financial risk measure

Risk behavior was assessed by asking participants to complete a seemingly unrelated task with instructions to indicate their preference between two options (from Duclos, Wan, & Jiang, 2012). Option A, the lower risk alternative, offered an 80% chance of winning $500 and a 20% chance of winning nothing, whereas Option B, the higher risk alternative, offered a 20% chance of winning $2400 and an 80% chance of losing $100, thus presenting a salient loss outcome. Both options offered the same expected utility (i.e., $400) but different odds (i.e., B was riskier than A). These items were pretested for loss salience among a separate sample of 109 individuals. Ninety-one out of 109 participants (83.5%) rated Option B as having a more explicit potential for loss compared to Option A, confirming the salience of loss. After considering this information, participants reported their preference between the two options on a 1 ("Strongly prefer Option A") to 7 ("Strongly prefer Option B") scale, with higher scores indicating a stronger preference for higher risk and lower scores indicating a stronger preference for lower risk.

3.1.4. Control variables

We controlled for financial behavior, financial socialization, and gender information. Financial socialization was measured using a 5-item (α = 0.79) scale from Shim, Barber, Card, Xiao, and Serido (2010) and financial behavior using a 4-item (α = 0.84) measure from Shim, Xiao, Barber, and Lyons (2009). Finally, we collected participants' demographic information. No differences emerged in the control variables across experimental conditions (all p's = NS) and including these variables in our analysis did not change the results.

3.2. Results

ANOVA results ($F_{(1, 140)} = 7.05$, $p < .01$) indicate a significant effect of mindset on risk in support of H1. Specifically, participants presented with the entity cover story indicated a stronger preference for the lower risk option ($M_{Entity} = 5.45$, SD = 1.61) than participants exposed to the incremental cover story ($M_{Incremental} = 6.29$, SD = 2.13).

4. Study 1b: replicating the effect of self-theory on financial decisions with salient monetary loss

The aim of Study 1b is to replicate the findings from Study 1a with a non-student sample. Study 1b employs a self-reported individual difference measure to capture participant's mindset rather than relying on a manipulation approach, and utilizes a different outcome variable to assess financial risk.

4.1. Method and measures

4.1.1. Participants and procedure

Participants were one hundred forty ($n = 140$) adults recruited from Qualtrics in return for a nominal payment (51% female; mean age between 25 and 34 years). The sample was purposefully managed to be representative of the general population across a number of demographic characteristics. Participants were recruited under the premise of participating in a series of independent studies.

4.1.2. Mindset measure

Rather than priming participants with an incremental or entity mindset as in Study 1a, we captured participant's mindset by using the Implicit Persons Theory Measure adapted from Levy et al. (1998). Participants responded to eight statements, each representative of either an incremental or an entity mindset, on 7-point scales (1 = “Strongly Disagree”, 7 = “Strongly Agree”). The items were coded in the same manner as Study 1a and combined into a composite scale ($\alpha = 0.91$).

4.1.3. Financial risk measure

We assessed financial risk behavior in Study 1b by asking participants to imagine they had $10,000 and planned to save this money for their future. Participants were then told to imagine they were presented with a savings option with a 25% chance of earning $7500 but a 75% chance of losing $1000. Participants were asked to indicate on a sliding scale the percentage of their savings (e.g., $10,000) that they would allocate to this particular option. Similar to Study 1a, this option included a salient monetary loss (i.e., losing $1000). We pretested this outcome for loss salience among the same separate sample as Study 1a ($n = 109$). A one sample t-test against the median value of 3.50 of the 7 point scale (1 = “Strongly Disagree”, 7 = “Strongly Agree”) showed that participants considered the savings option to make loss salient ($M = 5.94$, SD = 1.66; $t_{(108)} = 9.02$, $p < .001$).

4.1.4. Control variables

We controlled for financial knowledge using a shortened version ($\alpha = 0.86$) of Rosenstreich's (2014) Attitude towards Financial Information scale. Gender and other demographic information were recorded as well. Analysis revealed that these control items did not affect results and that participant mindset contributed significantly beyond the variance explained by these control items.

4.2. Results

Given our use of a continuous mindset measure in Study 1b, linear regression was used to examine the effect of implicit self-theory on risk behavior. It was confirmed that self-theory had a significant effect on risk-taking ($\beta = 0.203$, $t = 2.47$, $p < .02$). Moreover, there was a significant difference between self-theory in terms of percentage of money allocated to the savings option. Specifically, incremental-focused individuals ($M_{Incremental} = 41.07\%$ of savings allocated, SD = 23.85) expressed higher risk-taking than entity-focused individuals ($M_{Entity} = 28.69\%$, SD = 19.43; $F_{(1,142)} = 11.72$, $p < .001$). Importantly, and in line with our prediction, individuals who subscribe to an entity self-theory took significantly less risk than their incremental counterparts when the possibility of a monetary loss was salient. See Fig. 1 for Study 1b results.

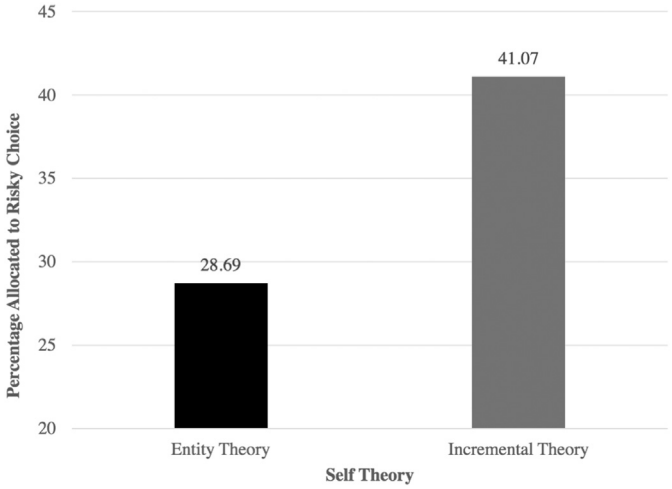

Fig. 1. Study 1b Percentage allocated to risky choice.

4.3. Discussion

In line with H1, Studies 1a and 1b show entity-focused individuals are less risk-seeking when a potential monetary loss is explicitly presented. Relative to incremental theorists, entity theorists indicated a stronger preference for less financial risk, similar to the findings of Rai and Lin (2019). These findings were consistent across student and adult samples and distinct dependent variables, with financial risk choice operationalized using both, a standard 7-point scale for preference between two options and a slider scale for resource allocation.

5. Study 2a: effect of self-theory on financial decisions without salient monetary loss

In Study 2a, we test the prediction that entity theorists will be more risk-accepting when possible loss is not explicitly presented (i.e., less salient).

5.1. Method and measures

5.1.1. Participants and procedure

Participants were two hundred ninety-five ($n = 295$) undergraduate students (56% female) from a large southeastern U.S. university who were invited to participate in exchange for course credit. Participants were told that they were going to participate in a series of independent studies and that the purpose of the first study was to get their opinion on an article's clarity and readability.

5.1.2. Mindset manipulation and manipulation checks

The same article-based manipulation from Study 1a was used, with participants randomly assigned to one of two experimental conditions (entity or incremental) and asked to fill out the Levy et al. (1998) measure based on the article. The manipulation was successful, with participants in the incremental condition reporting significantly more incremental beliefs ($M_{Incremental} = 4.95$, SD = 1.17) compared to those

in the entity condition (M_{Entity} = 3.97, SD = 1.24; $F_{(1,\ 293)}$ = 48.36, $p < .001$).

5.1.3. Financial risk measure

Financial risk was assessed by inviting participants to take part in a seemingly unrelated study featuring two hypothetical lottery options based on Duclos et al. (2012). Option A, the riskier alternative, offered low odds but a high reward (i.e., a 20% chance of winning $200 and an 80% chance of winning nothing) whereas Option B, the less risky alternative, offered a guaranteed payment of $40. Accordingly, the worst outcome was winning nothing and monetary loss was not salient. Eighty-eight out of 109 (80.7%) pretest participants rated Option B as having a higher salience of gain, with Option A having a lower salience of loss. After considering this information, participants reported their preference between the two options. Upon completion of this task and other unrelated filler tasks, participants were debriefed and thanked.

5.1.4. Control variables

Financial socialization and risk attitude were included as controls. Financial socialization was measured using a 4-item version (α = 0.84) adapted from Shim et al. (2009) and risk attitude was measured using a modified 4-item version (α = 0.67) adapted from Lachance (2012). We also collected demographic information. No differences emerged in the control variables across experimental conditions (all *p*'s = NS). Gender as a covariate was significant ($p = .02$); however, including this variable in the analysis did not change our results.

5.2. Results

Chi-square analysis revealed a significant effect of study condition on risk decision ($\chi^2_{(1)} = 6.45$, $p < .01$; Φ = 0.15). With regards to self-theory, results support H2 by showing that participants primed with an entity self-theory were more likely to choose the riskier option (58.7%) than those primed with an incremental self-theory (41.3%). Binary logistic regression analysis confirmed these results, showing a significant effect of mindset on risk-taking (Wald $\chi^2_{(1)} = 5.43$, β = 0.561, $p < .05$; Odds Ratio: 1.75).

6. Study 2b: replication of self-theory effect on financial decisions without salient monetary loss

Study 2b aims to replicate the findings of Study 2a using a non-student data sample with a self-reported mindset measure and a different response format similar to the allocation measure used in Study 1b.

6.1. Method and measures

6.1.1. Participants and procedure

Participants were two hundred and sixty three adults ($n = 263$) from an Amazon Mechanical Turk panel recruited to participate in a consumer survey (51.0% female; mean age of 35.72 years). Recent research has shown MTurk panels to be comparable to other data sources as long as proper controls and attention checks are utilized (Kees, Berry, Burton, & Sheehan, 2017).

6.1.2. Mindset measure

Similar to Study 1b, we captured participant's mindset by using the Implicit Persons Theory Measure adapted from Levy et al. (1998). Participants responded to eight statements, each representative of either an incremental or an entity mindset, on 7-point scales (1 = "Strongly Disagree", 7 = "Strongly Agree"). The items were coded in the same manner as previous studies and combined into a composite scale (α = 0.95). We performed a median split on the mindset measure to separate participants into entity and incremental theorists (Levy et al., 1998).

6.1.3. Financial risk measure

Financial risk-taking was assessed by having participants imagine they inherited $50,000 and had to save the money for their future. Risk choice was assessed by presenting participants with two options. Option A, the safer option, guaranteed a 3% annual return and Option B, the riskier option, delivered a return based on the performance of the stock market. Participants were told that the return of Option B could be higher but also lower than their initial investment, showing the stock market investment to be riskier than the guaranteed return but leaving the potential for loss ambiguous and open for interpretation. Eighty-six out of 109 (78.9%) of pretest participants rated Option B as being more ambiguous about the potential for loss, confirming the low loss salience of the option. Participants were asked to use a sliding scale (0–100%) to indicate the percentage of the money they would place in the stock market.

6.1.4. Control variables

We measured participants' financial self-efficacy using six items adapted from Montford and Goldsmith (2016; α = 0.88) and consumer financial experience using a set of nine consumer financial behaviors in which participants engaged (i.e. *Managing a savings account in excess of $10,000; Managing an IRA, 401(k), or other retirement plan; Investing in stocks/bonds*, etc.; α = 0.71), in addition to participant demographic information. No differences emerged in the control variables across experimental conditions (all *p*'s = NS) and their inclusion in the analysis did not change our results.

6.2. Results

Chi-square analysis revealed a significant effect of mindset on risk decision ($\chi^2_{(1)} = 5.84$, $p < .02$; Φ = 0.15). With regards to self-theory, results replicate those of Study 2a by showing participants with an entity self-theory to be more likely to choose the riskier option (54.9%) than if those with an incremental self-theory (40.0%). Binary logistic regression analysis confirmed these results, with mindset having a significant effect on risk-taking (Wald $\chi^2_{(1)} = 4.04$, β = 0.205, $p < .05$; Odds Ratio: 0.82).

Among participants who selected the risky Option B ($n = 125$), a one-way ANOVA with percentage invested in the stock market as the dependent variable was significant ($F_{(1,123)} = 5.30$, $p < .03$). Participants subscribing to an entity self-theory allocated a larger percentage of the money to the stock market ($M = 51.52\%$) than participants adhering to an incremental self-theory ($M = 42.13\%$). Importantly, and as expected, when a possible monetary loss was not salient (i.e., "the return could be higher but also lower than your initial investment"), entity (vs. incremental) theorists took more financial risk. See Fig. 2 for Study 2b results.

6.3. Discussion

Studies 2a and 2b provide support for H2, which predicts that entity theorists prefer riskier options more so than incremental theorists when potential loss is not salient. These findings were consistent across student and adult samples and different methods of assessing mindset, with Study 2a employing a mindset manipulation and Study 2b utilizing a self-reported measure of mindset. Further, the studies used distinct dependent variables, with financial risk choice operationalized in a discrete choice setting (Study 2a and Study 2b) in addition to an allocation measure (Study 2b).

Importantly, these results confirm a reversal of our findings in Studies 1a and 1b, which we attribute to loss salience and signaling. When a monetary loss is salient (i.e., "*a loss of $1,000*" vs. "*the return could be higher or lower than what was initially invested*"), risk-taking was significantly less for entity-focused individuals than for incremental-focused individuals. We argue that this is based on the desire to self-signal, with entity theorists less risk-accepting when loss is salient,

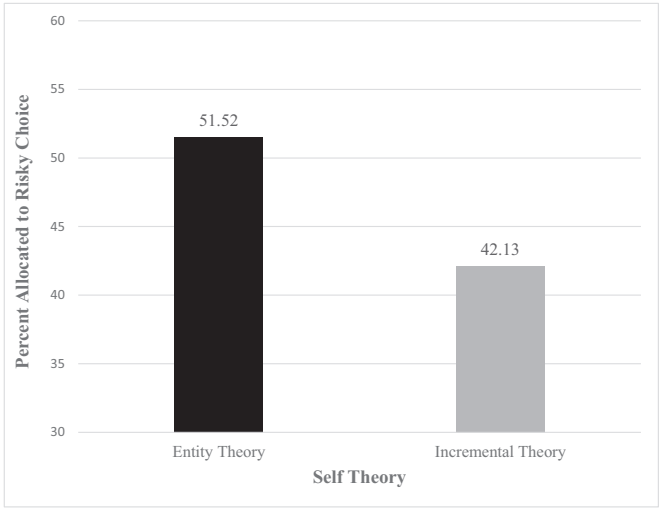

Fig. 2. Study 2b Percentage allocated to risky choice.

given their desire to avoid outcomes that could threaten their image in the eyes of others. Conversely, when loss is not salient, entity theorists interpret ambiguous information in a way that conforms to a desired positive outcome. Study 3 adds to these results by exploring an underlying process for the effect of self-theory on financial risk-taking.

7. Study 3: mediating effect of tolerance of ambiguity

Study 3 builds from the results of Study 2a and 2b to test the process effect of tolerance of ambiguity on financial risk-taking. Accordingly, we utilize outcomes where loss is not made salient, with the expectation that entity theorists will be more risk-accepting.

7.1. Method and measures

7.1.1. Participants and procedure

Study 3 utilized adult members of a Qualtrics online panel. The sample consisted of two hundred and forty-five ($n = 245$) adults recruited to participate in a consumer survey (52% female; mean age between 45 and 54 years). The sample was purposefully managed to be representative of the general population across a number of demographic characteristics.

7.1.2. Mindset measure

Study 3 captured participant's implicit self-theory using the same self-report measure used in Study 2b (Levy et al., 1998). Responses were coded in the same manner as previous studies and combined into a composite scale ($\alpha = 0.89$).

7.1.3. Financial risk measure

Study 3 utilized the same measure of financial risk as Study 2b, where loss was not made salient. Participants were instructed to imagine they had $50,000 saved and were asked to indicate their preference for how this money would be allocated by selecting one of two options. Option A (low risk) guaranteed a fixed interest rate of 3%, while Option B (high risk) delivered a return based on the performance of the stock market. Participants were informed that the return could be higher or lower than their initial investment. Thus, the potential for loss was not salient in the decision-making context. The dependent measure in this analysis was the most preferred option.

7.1.4. Tolerance of ambiguity measure

Tolerance of ambiguity was measured using seven adapted items ($\alpha = 0.65$) from MacDonald Jr (1970) and Herman, Stevens, Bird, Mendenhall, and Oddou (2010). These items asked participants how comfortable they are with uncertainty (e.g. *"I like to make decisions based on things that are familiar to me"*) and were recoded such that a higher number represented greater tolerance for ambiguity. Responses were captured on a 1 ("Strongly Disagree") to 7 ("Strongly Agree") scale.

7.2. Results

7.2.1. Mediation analysis

A test for mediation was conducted (PROCESS Model 4; Hayes, 2012) to examine whether tolerance of ambiguity mediates the effect of self-theory on risk behavior. Following the procedure recommended by Krishna (2016), the model included mean-shifted mindset as the independent variable, mean-shifted tolerance of ambiguity as the mediator, and investment option as the dependent variable. Bootstrapping analysis (5000 resamples) revealed that tolerance of ambiguity mediated the relationship between mindset and investment option, with an indirect effect of -0.18 (95% CI: $[-0.37, -0.03]$). This result reveals that mindset has a negative indirect effect on financial risk-taking through tolerance of ambiguity, such that a shift in mindset to incremental from entity reduces tolerance of ambiguity, which in turn, reduces risk-taking. Thus, entity (vs. incremental) theorists are more tolerant of ambiguity, enhancing their willingness to accept financial risk. We provide further support for this finding by showing entity theorists displayed greater tolerance of ambiguity ($\mu = 3.76$) than their incremental counterparts ($\mu = 3.38$ $[t_{(241)} = 4.13]$, $p < .001$). See

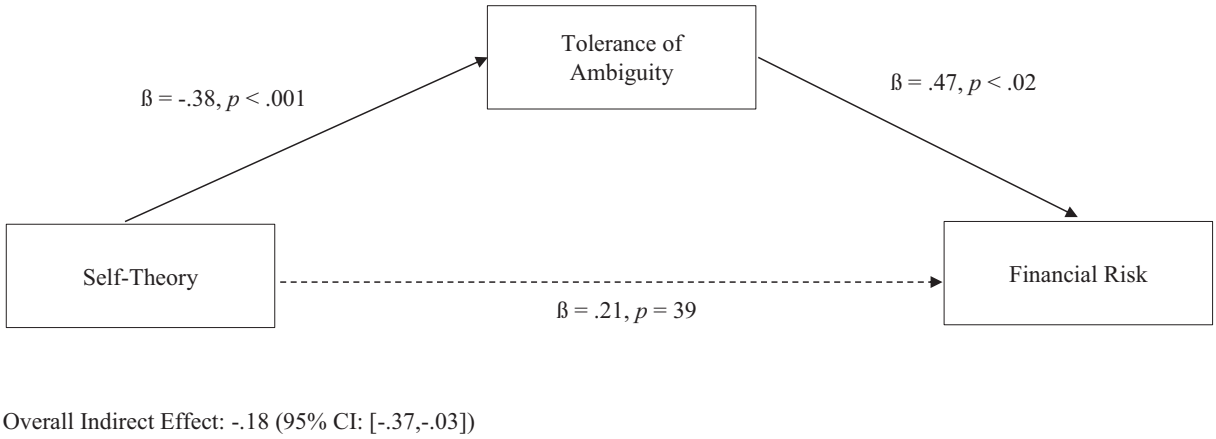

Fig. 3. Study 3 Mediating effect of tolerance of ambiguity.
Overall indirect effect: -0.18 (95% CI: $[-0.37, -0.03]$).

Fig. 3 for mediation results.

7.3. Discussion

Study 3's findings show that the effect of mindset on financial risk-taking is mediated by tolerance of ambiguity, uncovering a process through which mindset influences risk choice and supporting H3. Results also show tolerance of ambiguity to increase for entity theorists, providing support for H4.

8. Conclusions and theoretical contributions

In this research we aim to create a better understanding of how implicit self-theories affect financial risk-taking. This work is part of an emerging body of literature examining the role of consumer mindset in financial decisions (Rai & Lin, 2019), while providing evidence of its impact on response to risk choice. Moreover, the current work answers the call of scholars for additional research focused on the role of financial services within the transformative service research (TSR) domain. By identifying a crucial and unique aspect of the relationship between consumer traits and financial decision-making, we believe that the current work aligns with TSR's mission to understand how marketplace structure and the financial services process can be used to either improve or detract from consumer well-being (Anderson et al., 2013; Ostrom, Parasuraman, Bowen, Patricio, & Voss, 2015). Specifically, we examine how the presentation of risk, specifically the salience of loss, leads to distinct risk choices for incremental and entity theorists.

Across five studies, we show that under conditions in which loss is more salient, individuals holding an entity (vs. incremental) theory about human traits and characteristics are less (more) risk-seeking. However, this effect is reversed under conditions in which threat of monetary loss is less explicit, such that entity-focused individuals are more risk-accepting. Importantly, our findings hold regardless of whether self-theory is directly manipulated or measured as a self-reported construct and with different assessments of financial risk. Additionally, we identify a specific mechanism underlying the acceptance of risk when loss is less salient, demonstrating that the effect of mindset is mediated by the tolerance of ambiguity. Specifically, we find that entity theorists are more prone to integrate ambiguous information into their decisions, leading them to accept more financial risk when the threat of loss is not salient. Taken together, these findings substantiate the role of self-theory in risk choice by uncovering several valuable insights into how differences in consumer mindset affect financial risk-taking. Our research contributes to the literature in the following three ways.

First, we establish that implicit self-theories play an essential role in the financial decision-making process by showing that entity theorists prefer less risky financial alternatives when the possibility of realizing a monetary loss is made salient (Studies 1a and 1b). When loss is explicitly stated (e.g., “a chance of losing $100” vs. “the return could be higher or lower than the initial amount”), entity-focused consumers are in fact, less risk-seeking than incrementally-focused individuals. We turn to the literature on self-signaling to explain this effect (e.g., Blackwell et al., 2007), particularly the desire of entity theorists to signal attributes such as success, competence, and capability (Furnham & Argyle, 2013). An increase in loss salience leads to higher awareness of a potential undesirable outcomes, thus threatening the ability for entity theorists to display desirable attributes.

Second, we identify a boundary condition and demonstrate a reversal of this effect by showing that entity theorists actually prefer *greater* risk than incremental theorists under conditions where monetary loss is *not* made explicit (Studies 2a and 2b). We suggest that this reversal in behavior is also explained by the desire to self-signal, which is logically consistent with theory and prior findings that money and economic gain create opportunities to signal positive attributes (Belk & Wallendorf, 1990; Furnham & Argyle, 1998). When the potential for loss is left open to interpretation (i.e., presented more ambiguously), entity theorists are more likely to interpret the information in a manner that reflects positively on themselves (Mishra et al., 2011), leading them to accept more risk. The findings from Studies 1 and 2 thus extend previous research demonstrating entity theorists' sensitivity to failure and criticism (Detweiler-Bedell & Detweiler-Bedell, 2016; Dweck, 2012) and tendency to avoid situations with potentially negative or unpleasant outcomes (Elliott & Dweck, 1988) into the important domain of financial risk-taking. Of particular importance, we add to the findings of Rai and Lin (2019) by establishing certain conditions under which entity theorists are expected to be more risk-accepting than their incremental counterparts.

Third, we demonstrate a psychological process underlying the influence of self-theory on financial risk-taking when loss is less salient by introducing tolerance of ambiguity as a mediator (Study 3). We find that tolerance of ambiguity mediates the relationship between implicit self-theory and risk-taking behavior. Notably, this finding adds to our current knowledge about other mechanisms by which self-theories affect consumer behavior (Park & John, 2010, 2018). The current research also broadens our understanding of self-theories by establishing that entity theorists exhibit a greater tolerance for ambiguity than incremental theorists. We suggest that this greater tolerance is due to an overly optimistic interpretation of uncertain future outcomes that directly aligns with a desire to signal positive characteristics. As such, entity theorists interpret ambiguous stimuli in manners that influence risk choice (Dunning et al., 1989).

Our findings that entity theorists are more tolerant of ambiguity and more risk-seeking when loss is less salient illustrates the unique crossover between these theoretical concepts. Past research has long considered outcome salience (Bordalo et al., 2012; van Schie & van Der Pligt, 1995) and tolerance of ambiguity (Budner, 1962; Herman et al., 2010) as possessing distinct influences on consumer behavior. However, our work establishes that these two forces are inherently linked and can work in concert with one another in the presentation of outcomes. When outcomes involving financial loss are not explicitly presented, entity theorists incorporate this ambiguity in such a way that overstates the possibility that the decision will lead a desirable outcome, affording them the opportunity to signal positive attributes.

Additionally, the findings of the current research fit within the larger body of work exploring financial behavior and consumer well-being. Recent research (Richins, 2017) shows the psychological consequences of seeking financial gains, finding that an increase in behavior focused on enhancing financial status can have a detrimental effect on consumer happiness. By showing that under different degrees of ambiguity, entity and incremental theorists differ in their acceptance of financial risk, our work suggests implicit self-theory has an integral effect on consumer well-being. For entity theorists in particular, seeking additional financial risk in order to signal worth and ability, could adversely affect their overall happiness and well-being. While the current research does not directly consider the connection between self-theory, financial risk, and consumer well-being, we believe it is a meaningful area for future investigation.

From a theoretical perspective, the results of these studies provide direction for future research. In particular, researchers can continue examining implicit self-theory as an antecedent to consumer behavior and to explore additional psychological processes that may underlie the decision-making process. It would also be beneficial to examine how self-theory is related to additional process-dependent individual difference variables. Such research can provide valuable insight into the nature of *how* self-theories influence consumer behavior.

8.1. Implications for transformative services, industry, and policymakers

The results of these studies also provide direction for managers and policy makers as they are increasingly interested in how to guide consumers towards improved financial behavior. For example, in recognizing the importance of financial literacy, governmental agencies,

along with private and nonprofit organizations, have pushed for the availability of more educational opportunities for consumers (Fox, Bartholomae, & Lee, 2005). While the effectiveness of these programs remains in question (Lusardi & Mitchell, 2007; Morrin, Broniarczyk, & Inman, 2012), examining the influence of mindset in relation to these initiatives would ostensibly aid in improving such efforts.

In this vein, our results carry significant implications for service scholars interested in better understanding the connections between service providers and consumer welfare. The transformative service research (TSR) subfield is particularly well suited to pursuing strategies that improve the financial well-being of consumers by not only changing behavior, but also understanding the motivations behind the behaviors and the role of financial service providers in facilitating consumer well-being. Accordingly, we believe our research fits nicely within the TSR agenda calling for research that relates to, and advocates for, the well-being of consumers (Rosenbaum et al., 2011).

In particular, our research emphasis on presentation of loss fits within what Anderson et al. (2013; p. 1207) label as the "process" necessary to deliver financial services to consumers. Our findings show that how the possibility of loss is presented to consumers, and by virtue risk, differently impacts the decisions of incremental and entity theorists. This is particularly important from a TSR perspective, given the impact that sound financial decisions and as such, the use of financial services, have on consumer well-being (Mende & Van Doorn, 2015; Winterich & Nenkov, 2015). Consumers often rely on financial professionals to help develop spending and money management plans in the hope of securing long-term financial security, as many lack the requisite financial literacy (Anderson et al., 2013; Kim et al., 2003). Moreover, clients expect advisors to understand their unique situations and to offer products tailored to their specific needs. Beyond financial and investment solutions, this includes knowledge of how clients expect to be served, how family members should be included in the planning process, and the value they place on advice (Accenture, 2015). This level of discovery and understanding typically occurs in the client onboarding process conducted by the company, in which financial planners often use survey instruments to understand their client's goals, risk tolerance, and service expectations. The findings of the current research illustrate the need for financial service providers to include questions that capture their client's implicit self-theories as well. By identifying if a client possesses an entity (incremental) mindset, the advisor is better positioned to understand how to frame and discuss the various investment products needed to achieve the client's goals and secure financial well-being.

Additionally, our findings suggest that entity theorists are potentially more vulnerable to advertising and communications practices where risk is presented less saliently. Accordingly, consumers – particularly entity theorists – should proactively seek to understand the degree of risk associated with the financial products and services under consideration. Doing so will allow them to mitigate the potential hazards associated with predatory financial practices. Concurrently, and in the spirit of TSR, financial service providers should emphasize all inherent risks associated with an investment rather than downplaying or oversimplifying them. This practice will allow the advisor to protect against a client taking more risk than they are willing to tolerate if a loss occurs.

Given that self-theories can be both measured and activated from stimuli present in everyday life (Jain, Mathur, & Maheswaran, 2009; Yorkston et al., 2010), the possibility exists for managers and policy makers to situationally influence the acceptance of particular financial instruments via the salience of possible loss. Specifically, financial advisors may wish to capture consumer mindset as part of the overall risk profile process and consider it when designing investment portfolios. Advisors ordinarily try to reduce uncertainty by stating historical returns or present a range of possible outcomes when presenting the degree of risk for a product. However, as we have shown, the framing and presentation of possible outcomes, particularly potential losses, lead to different choices based on self-theory. Advisors could incorporate this relationship when presenting financial products to clients in a way that encourages sound financial decisions. From the firm's perspective, simple logic suggests that the focus of financial service companies on improving the financial lives of their customers will only improve the long-term value these customers bring to the organization.

In addition, managers may choose to engender a particular mindset (i.e. entity or incremental) based on what's in a client's best interest for achieving their final goals. For example, if it is determined that a client is too risk averse – that is, not willing to accept sufficient financial risk needed to reach their stated goals – an advisor may activate a particular mindset that endorses the acceptance of risk and match that with the presentation of investment options. Importantly, risk aversion can be a detriment to long-term savings as it can discourage the inclusion of riskier assets such as stocks and corporate bonds. Riskier types of assets usually provide the needed growth in value (Butler & Domain, 1991; Hickman, Hunter, Byrd, Beck, & Terpening, 2001; Levy & Spector, 1996; Markowitz, 1952), while also lowering overall risk and volatility (Nuttall & Jahnke, 2000). By including mindset in the overall risk evaluation process and using it's affect as part of a comprehensive approach to financial guidance, advisors can better serve their clients. Alternatively, advisors may also choose to active an alternative mindset if they wish to reduce the preferred level of risk and present risk in corresponding fashion. All of these opportunities for financial advisors can facilitate consumer welfare through the financial services process (Anderson et al., 2013), which serves the ultimate goal of TSR to create "uplifting changes and improvements in the well-being of both individuals and communities" (Ostrom et al., 2010, p. 9).

Finally, in addition to the points previously discussed, there are limitations of the current research that serve as fruitful areas for researchers to consider. While we highlight that self-theory is a significant factor of the risk decision process, we did not test different types of financial risk. Whether entity theorists take additional risk when making other financial decisions is not clear. Researchers should also explore whether increased risk acceptance among entity theorists (in the absence of explicit loss) is short-lived. In other words, how does the vagueness of loss affect risk choice for the long-run? At what point in the consideration process are entity theorists less risk-seeking? Extending this stream of research beyond this particular type of financial activity (i.e., monetary gains) into other contexts such as debt management may allow for a better understanding of how self-theories relate more broadly to consumer well-being. Researchers may work to better understand how consumers holding different mindsets respond to other influences on financial decision-making (e.g., emotions, past experiences). Future research should also further explore how outcome salience and tolerance for ambiguity are related to self-theory and impact decisions in other domains beyond financial decisions.

In sum, the current research illuminates an important relationship involving implicit self-theories, tolerance of ambiguity, and financial risk-taking. Our work furthers the discussion on how one's belief in the malleability of human traits and characteristics guides financial risk choice and provides interesting avenues for future research. Given the high-risk nature of financial services (Zayer, Otnes, & Fischer, 2015) and the need to understand the many influences of financial decision-making, we show that one's self-theory is crucial in the acceptance of risk. Understanding how consumers trade risk for reward is important in the financial advisor/client relationship and for consumer well-being. We show how one's self-theory and the presentation of risk interact to determine one's acceptance of risk. More research remains to be done, and the current work serves as a springboard for such efforts.

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