

Not My Type: Why Affective Decision Makers Are Reluctant to Make Financial Decisions

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Why are people often uncomfortable dealing with financial decisions? We propose that people perceive financial decisions—more so than decisions in many other equally complex and important domains—as compatible with a cold, analytical mode of thinking and as highly incompatible with feelings and emotions. Consequently, the more people perceive themselves as inclined to rely on affect in their decisions, the more they experience self-concept incongruity with financial decisions (i.e., feeling that financial decisions are “not them”), and consequently show an increased tendency to avoid such decisions. Five studies demonstrate this phenomenon, using both consequential and hypothetical decisions; provide evidence for the proposed mechanism; and rule out alternative accounts, including perceived financial knowledge, expertise and self-efficacy perceptions, decision confidence, and preference for numerical information. The findings contribute to research on thinking styles and decision avoidance, and they underscore a unique characteristic of financial decisions that makes them stand out among many other decision types. In addition to their theoretical significance, the findings have practical implications for the communication of financial products and services.

Keywords: financial decision making, affective and analytical thinking styles, self-concept incongruity, decision avoidance

Why do people often feel uncomfortable dealing with financial decisions? Although some of life's most important decisions involve financial products, people are frequently apprehensive about financial decisions and often choose to defer or avoid them. People routinely pass on opportunities to refinance their mortgages (Agarwal et al. 2015), fail to save at sufficient rates (Dholakia et al. 2016),

neglect to take advantage of 401(k) matching contribution plans despite the clear opportunities for financial gains (Choi, Laibson, and Madrian 2011), and prefer investment strategies that require minimal active involvement while potentially sacrificing financial returns (Benartzi et al. 2007; van Rooij, Lusardi, and Alessie 2011). Such behaviors are often explained in terms of financial decisions' perceived complexity (Iyengar and Kamenica 2010), people's low levels of objective and subjective financial knowledge (Hadar, Sood, and Fox 2013; van Rooij et al. 2011), and personal traits and habits (Dholakia et al. 2016; Lynch et al. 2010; Soll, Keeney, and Larrick 2013; Spiller 2011). But while these reasons clearly play a significant role in driving financial decision avoidance, do they tell the whole story? Or are there additional factors that explain the discomfort that even knowledgeable people may experience in the face of financial decisions?

We examine a novel explanation for such suboptimal behaviors, one that has to do with people's perceptions of

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their own thinking style. Specifically, we propose that people tend to associate financial matters with a “cold,” analytical mode of thinking that is incompatible with the tendency to experience and rely on feelings and emotions. We further propose that people often perceive a discrepancy between their own largely affective thinking style and the analytical nature of financial decisions. This perceived discrepancy between one’s individual thinking style and the type of thinking that is associated with the decision domain may increase the tendency to avoid financial decisions, irrespective of subjective financial knowledge or perceived expertise. This occurs because perceiving a thinking-style discrepancy leads people to experience self-concept incongruity with the decision domain (i.e., feeling that financial decisions are “not them”), which in turn increases avoidance. We predict and find that this perceived discrepancy plays a significant role in financial decision avoidance, holding constant objective and subjective financial knowledge, expertise, and general self-efficacy perceptions.

Our proposition is consistent with prior work showing that people associate different decision domains with different processing styles, and that they are spontaneously cued by the decision context to follow emotions or reason when making their decisions (Inbar, Cone, and Gilovich 2010; Novak and Hoffman 2009). We extend these prior findings by showing that people spontaneously assess not only what processing style is appropriate in a given context, but also the extent to which their individual decision-making style tendencies fit this decision context. When it comes to financial decisions, seeing oneself as prone to affective thinking leads to perceptions of self-concept incongruity with the decision domain, which in turn increases the tendency to avoid or defer financial decisions.

This research makes several important contributions. First, it examines a novel potential determinant of the tendency to put off financial decisions, and suggests strategies for remedying it. Second, the findings extend prior work on decision-making styles. Whereas prior work has suggested that experiencing congruency between the task and one’s situation-specific thinking style increases retrospective task performance perceptions (Novak and Hoffman 2009), we show that people’s forward-looking attitudes and their behavioral intentions toward important decisions are influenced by their perceptions of fit between their individual thinking style and the task. Furthermore, we show that the effect of perceived thinking-style misfit on decision avoidance is mediated by a subjective sense of self-concept incongruity with the decision domain. To our best knowledge, no prior research has examined this consequence of perceived thinking-style misfit.

Third, our research examines a distinctive characteristic of financial decisions that makes them different from similarly important decisions in other domains. Many types of decisions are perceived as complex and requiring specialized knowledge, but we find that financial decisions stand out

in the extremity to which they are seen as compatible with only one specific thinking style (i.e., analytical, affect-free). Thus, whereas our conceptualization regarding the effect of thinking-style compatibility may theoretically apply to any decision domain associated with different thinking styles, empirically it appears to characterize financial decisions more than decisions in other domains.

In the next sections, we present the theoretical background for our proposition and then report five studies that demonstrate how perceptions of individual decision style influence the tendency to avoid financial decisions, holding constant perceived knowledge and self-efficacy. We conclude with a discussion of the theoretical and practical implications of the findings.

FINANCIAL DECISION AVOIDANCE

Despite the obvious importance of managing their personal finances, people often feel reluctant to actively engage in financial decisions involving investments, saving, and debt management. We focus on these types of financial decisions because they appear archetypical for the domain and thus have been the focus of prior research on consumer disengagement from financial decisions (Agarwal et al. 2015; Benartzi et al. 2007; Choi et al. 2011; Dholakia et al. 2016; Hadar et al. 2013; Soll et al. 2013; Spiller 2011; van Rooij et al. 2011; we discuss exceptions and boundary conditions in the General Discussion).

Most existing research has focused on three primary drivers of financial decision avoidance—low objective and subjective knowledge, financial decisions’ perceived complexity, and personal habit and traits. First, financial decision avoidance is often caused by lack of sufficient knowledge about financial products and services (Benartzi and Thaler 2001; Choi et al. 2011; Soll et al. 2013; Stango and Zinman 2009). Financial illiteracy makes it difficult for consumers to understand and choose among financial options and alternatives, which often leads people to neglect to develop adequate financial plans for themselves and to evade financial decisions and issues more generally (FINRA 2009; Helman, VanDerhei, and Copeland 2007). In addition to low objective knowledge, consumers’ subjective assessments of their knowledge influence financial decision avoidance as well. For example, feeling subjectively less (vs. more) knowledgeable about financial products, regardless of one’s objective level of financial knowledge, decreased people’s willingness to engage in complex financial decisions (e.g., enrolling in a 401(k) plan; Hadar et al. 2013).

Second, financial products and instruments have grown increasingly complex and sophisticated (Lusardi 2008). Perceived decision complexity not only increases avoidant behaviors but may also give rise to suboptimal simplification strategies and workarounds, such as the diversification heuristic or “1/n rule,” which may compromise financial

returns (Bernartzi and Thaler 2001; Iyengar and Kamenica 2010; Mitchell and Utkus 2004).

Third, the tendency to insufficiently attend to one's finances is influenced by personal traits, habits, and circumstances, including individual differences in generalized self-efficacy (Chen, Gully, and Eden 2001), investment risk tolerance (Iyengar and Kamenica 2010; Jianakoplos and Bernasek 1998), propensity to plan for the use of money (Fernandes, Lynch, and Netemeyer 2014; Madrian and Shea 2001), and partners' tendency to develop divergent expertise (Ward and Lynch 2015).

But whereas perceived and actual knowledge, decision complexity, and individual traits and habits clearly play a significant role in driving financial decision avoidance, do they tell the whole story? The limited success of financial education programs, for example, in reducing financial decision avoidance and deferral (Boshara et al. 2010; Choi et al. 2002; Fernandes et al. 2014; Lusardi and Mitchell 2007) suggests that there may be additional contributors to people's reluctance to engage in financial decisions. We propose that one such factor is a mismatch between people's self-perceptions of being prone to affective thinking and the type of thinking that is believed to be appropriate in financial decisions.

THE ROLE OF DECISION-STYLE (MIS)FIT PERCEPTIONS

Different types of decisions call for different thinking styles, ranging from emotional or experiential to analytical or rational thinking (Epstein 1994; Hammond 1996; Hogarth 2002). Affective thinking relies on emotion as a primary input. Affective thinking is relatively associative and holistic, and often favors affectively or experientially appealing options (Bazerman, Tenbrunsel, and Wade-Benzoni 1998). Analytical thinking relies more on cognitive reasoning and logic (Epstein et al. 1996), and consequently often favors utilitarian options that are easier to justify using cognitive reasoning (Sela, Berger, and Liu 2009).

Of note, the distinction between affective and analytical thinking does not always overlap with heuristic versus systematic (or "system 1" vs. "system 2") thinking. Although affective thinking can be less effortful than analytical thinking, it is not inherently or necessarily effortless or heuristic: the processing of emotions may involve considerable reflection and deliberation (Schwarz 1990, 2000). Affect can serve as a heuristic cue in some cases (Slovic et al. 2007), but reliance on feelings is not inherently heuristic in nature and does not necessarily imply decreased cognitive effort or faster response time (Avnet, Pham, and Stephen 2012; Cohen, Pham, and Andrade 2008; Faraji-Rad and Pham 2017; Lee et al. 2015). Thus, affective processing is not synonymous with heuristic or system 1

processing; it is a characteristic of thought content more than thought effort or speed.

Further, neither affective nor analytical thinking style is inherently superior, and whether decision makers use one or the other, or some combination of both, is more a function of individual dispositions (Betsch and Kunz 2008; Hsee et al. 2015; Marks et al. 2008; Pacini and Epstein 1999) and situational cues (Novak and Hoffman 2009). In particular, people associate specific decision contexts with specific thinking styles, and they are cued by situational characteristics to use either affective or analytical processing, or a combination thereof (Inbar et al. 2010). Decisions that are seen as complex, serial, and objectively evaluable, such as choosing a military tactic or a college major, are typically associated with analytical thinking style. More subjective or experience-related decisions, however, such as choosing a spouse, are often associated with more affective thinking (Inbar et al. 2010). Affect typically exerts greater influence when the context or the target is considered affect-relevant (Schwarz et al. 1987; Yeung and Wyer 2005), such as when the decision is guided by experiential/hedonic goals (vs. instrumental/utilitarian ones; Adaval 2001; Pham 1998), when it includes uncertainty (Faraji-Rad and Pham 2017), and when feelings toward the target are perceived as relevant more generally (Adaval 2001; Pham 1998; White and McFarland 2009).

Further, people often form perceptions of their own thinking style, both in terms of how they thought in specific situations (Epstein et al. 1996; Novak and Hoffman 2009) and in terms of more generalized self-perceptions regarding their individual thinking-style dispositions (Coleman and Williams 2013; Epstein 2003; Hsee et al. 2015).

Prior research suggests that greater perceived fit between the type of thinking that a specific decision requires and the type of thinking that is actually used in that situation often increases people's retrospective perceptions of decision efficacy in that situation and leads to more favorable task experiences (Novak and Hoffman 2009; Schwarz and Bless 1991). But whereas prior research has focused on how the degree of fit between task requirements and the style of thinking used influences task performance and retrospective task evaluation, there has been little research on people's *prospective* assessments of the extent to which their *dispositional* thinking-style tendencies generally fit decisions in specific contexts. Moreover, we argue that the (mis)match between one's individual thinking style and the type of thinking associated with a particular decision influences more than people's perceptions of their ability to make a sound decision (e.g., perceived acumen or decision confidence). In particular, we propose that when the type of thinking associated with a decision appears discrepant from one's individual disposition, decision makers may experience self-concept incongruity, or the sense that the decision is "not their thing," and that these perceptions

(rather than decision confidence or perceived expertise) increase decision avoidance.

Our proposition may appear consistent with prior research on regulatory fit, which suggests that anticipating or experiencing fit between one's goal or motivational orientation and the manner in which the goal is pursued increases task engagement (Avnet and Higgins 2003; Higgins 2000). Note, however, that our proposition is conceptually distinct from regulatory fit theory and is not predicted by it because, unlike regulatory orientation (e.g., individuals' promotion, prevention, locomotion, or assessment motives), perceived decision style is not a motivational construct; rather, it is a self-perception regarding one's personal tendencies or traits (Hsee et al. 2015). People may be inclined (or believe they are inclined) to rely on emotions versus reasons regardless of their goal orientation, motivation, or their "interest regarding the activity" (Higgins 2005, 209), which is at the heart of regulatory fit theory. Thus, despite using parallel logic in arguing that perceived fit increases task engagement, our current proposition resides beyond the boundaries of regulatory fit theory.

THE CURRENT RESEARCH

We suggest that people associate financial decisions, especially in archetypal financial contexts such as investments, saving, and debt management (which have typically been the focus of research on financial decision avoidance), with cold analytical thinking that is incompatible with affective thinking (we consider exceptions in the General Discussion). Our suggestion is consistent with a common assumption that emotions are bad for financial decisions. Media gurus often caution consumers against allowing their feelings to interfere with their finances (e.g., Barton 2015; Palmer 2014; Triffin 2014; Woodruff 2014) and popular culture often portrays successful bankers, brokers, and other finance professionals as "cold fish" who are morally and emotionally apathetic (Admati 2016; Lewis 2010; Luyendijk 2015). Such portrayals may perpetuate the perception that affective thinking is a hindrance to effective financial decision making.

Of note, although our conceptualization regarding the effect of perceived thinking style on decision avoidance can, in principle, apply to any decision domain that is differentially associated with analytical and affective thinking, we argue that financial decisions are relatively exceptional in the degree to which they are seen as compatible with only one mode of thinking. That is, although our conceptual framework is *theoretically* generalizable, *empirically* it appears to characterize financial decisions more than decisions in other domains.

A pilot study illustrates this point. We asked 322 respondents to indicate the extent to which analytical

reasoning and emotions should be consulted in 35 everyday decision domains, identified through a pretest (1 = never; 2 = sometimes; 3 = about half the time; 4 = most of the time; 5 = always). Each participant rated six decision domains, randomly presented. The results (figure 1) reveal that decision domains indeed vary in the extent to which they are seen as compatible with affective versus analytical thinking (Inbar et al. 2010). The standardized difference between the perceived compatibility of these two thinking modes ranges from .07 to 2.47, $M = .96$. However, the analysis also reveals that financial decisions stand out in the extremity with which these perceptions are discrepant. Analytical thinking is perceived as highly appropriate in financial decisions ($M_{\text{analytical}} = 4.73$, $SD = .58$; pooled across savings, borrowing, investment, debt management, stocks, mutual funds, and insurance decisions), as well as in many other domains ($M_{\text{analytical}} = 4.54$, $SD = .77$). In contrast, affective thinking is seen as highly inappropriate in financial decisions ($M_{\text{affective}} = 2.71$, $SD = 1.37$), significantly more so than in any other domain tested (all $ts > 2.33$, $ps < .02$). The discrepancy between affective and analytical thinking was greater than in any other decision domain (standardized mean difference = 1.93, $F(1, 406) = 687.75$, $p < .00001$).

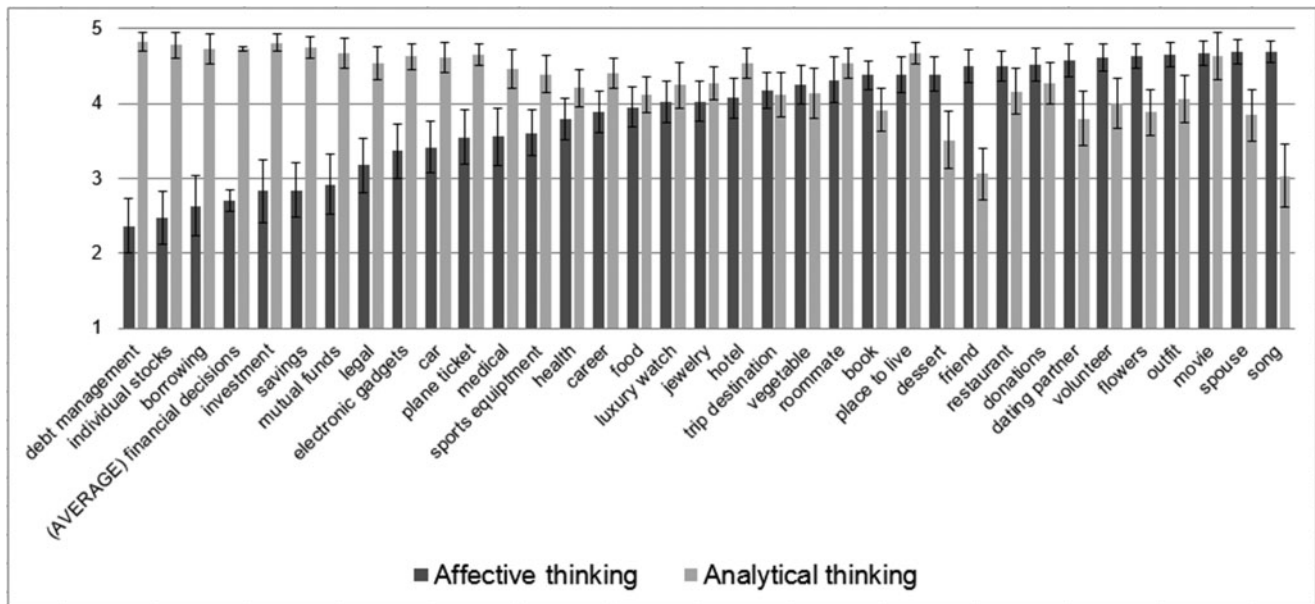
Furthermore, financial decisions stand out also in terms of the *absolute* perceived inappropriateness of affective thinking ($M_{\text{affective}} = 2.71$, $SD = 1.37$), lower than the scale's labeled midpoint ($t = -4.33$, $p < .001$). This suggests that affective thinking is seen as unambiguously detrimental for financial decisions, whereas for other decisions (e.g., in the medical domain), it may be seen as less helpful than analytical thinking but not necessarily as detrimental.

These findings suggest that although our conceptualization is theoretically generalizable, empirically it appears to characterize financial decisions more than decisions in other domains. Further, the findings underscore one novel characteristic that makes financial decisions worthy of distinct examination. Financial decisions stand out even in comparison to other decision domains that are seen as equally important, complex, and requiring specialized knowledge and careful analysis.¹ Decisions about medical treatment, for example, are extremely important and highly specialized, but they also implicate more subjective affective aspects (e.g., considerations related to anxiety, comfort, pain, pleasure, and rapport with care providers). Consequently, while such decisions require careful analysis, they may also benefit from the consideration of emotions and subjective well-being. Similarly, choosing a

1 Of note, legal decisions, which came closest to financial decisions in terms of the perceived inappropriateness of affective thinking as well as the discrepancy between the perceived appropriateness of affective and analytical thinking, is nomologically related to financial decisions. We discuss the possible applicability of our findings for legal decisions in the General Discussion.

FIGURE 1

PILOT STUDY: LAY BELIEFS REGARDING APPROPRIATENESS OF ANALYTICAL VERSUS AFFECTIVE THINKING



NOTE.—Error bars represent 95% confidence intervals.

spouse is an extremely important and multifaceted decision, with far-reaching consequences, but people are unlikely to see affect as an inappropriate decision input in such contexts. In contrast, we argue that the tendency to experience and be influenced by emotion may be seen as particularly incompatible with financial decisions.

Based on our conceptualization, we predict that when people believe they are personally inclined to rely on affective thinking, they will tend to avoid financial decisions more than when they believe they are inclined to rely on analytical thinking. We further predict that this effect will be mediated by perceived incongruity between people's self-concept and the decision domain. Self-concept congruity is defined as of the extent of overlap in terms of personality traits, temperament, likes and dislikes, beliefs, values, ambitions, goals, and ideals (Bartels and Rips 2010; Parfit 1984). Thus, we predict decision makers will perceive self-concept congruity with financial decisions to the extent that they believe their psychological properties are similar to the prototypical psychological profile associated with that domain (e.g., "these types of decisions feel like me" or "I am the kind of person who makes these types of decisions"). In contrast, those who believe they have a more affective thinking style will tend to view themselves as psychologically incongruent with financial decisions (e.g., "this is not my type of thing" or "I am not the kind of

person who makes these types of decisions"), which in turn will increase their tendency to avoid them.

We expect this effect to hold regardless of objective and subjective financial knowledge, perceived experience in the financial domain, confidence in one's technical ability to make financial decisions, and generalized self-efficacy perceptions. Thus, different from previous research, we show that perceived thinking-style mismatch influences behavior not only through perceived decision efficacy (i.e., ability to make the best decision), but through perceptions of self-concept congruity (i.e., the decision feels "like me" or "not like me").

Moreover, based on the results of the pilot study discussed above, we expect decision domain to moderate this effect. The effect should manifest in the context of financial decisions, where people perceive emotions as highly incompatible, more than in other equally important and specialized decision domains where affective thinking is seen as less incompatible. We test our predictions in seven studies using various measures of financial decision avoidance. Studies 1A and 1B use correlational evidence obtained from different pools to examine whether people's perceptions of their own thinking style vary naturally, and whether these self-perception differences are correlated with reported real-world decision avoidance tendencies in various domains, including financial decisions. We also

examine whether the relationship between perceived thinking style and financial decision avoidance can be accounted for by alternative constructs such as subjective financial knowledge, self-efficacy, and preference for numerical information.

Our next studies experimentally manipulate participants' self-beliefs regarding their individual thinking style. Study 2 examines the effect of perceived thinking style on the tendency to avoid real financial activities that have real potential consequences for participants.

Study 3A and 3B use a different manipulation of perceived decision style and provide more direct evidence that the effect of perceived decision style on financial decision avoidance is mediated by perceived (in)congruity between the self-concept and the decision domain.

Study 4 bolsters our proposition that the effect of perceived decision style on financial decision avoidance is due to the associations people hold regarding financial decisions. Specifically, study 4 tests whether keeping the decision content identical and varying only the framing of the decision (i.e., labeling it as either financial or nonfinancial) moderates the effect of perceived thinking style on avoidance.

Study 5 examines our prediction that this effect is specific to financial decisions and does not necessarily occur in other equally important and complex contexts.

Taken together, the studies examine a novel account for financial decision avoidance, test the underlying process and conceptual moderators, and address several alternative accounts.

STUDY 1A: PERCEIVED THINKING STYLE AND FINANCIAL DECISION AVOIDANCE

Study 1A has three important goals. First, it examines whether natural variations in self-perceptions of individual thinking style are associated with the tendency to avoid real-world financial decisions, in the absence of experimental intervention. Second, it examines whether the relationship between perceived thinking style and decision avoidance is generic (i.e., applies to all decision domains) or, as we propose, more domain-specific. Third, study 1A examines whether the relationship between perceived thinking style and financial decision avoidance can be accounted for by objective and subjective financial knowledge, self-efficacy perceptions, or preference for numerical information.

Method

Participants ($N = 147$; mean age = 35; 45% women) completed this survey on Amazon Mechanical Turk. Only US residents with an MTurk approval rate of 95% or higher were allowed to participate. The study consisted of

several presumably unrelated questionnaires. The items used in this study are listed in web appendix A.

Thinking Style Self-Perceptions. We measured decision-style self-perceptions using the lay rationalism (LR) scale (Hsee et al. 2015). The LR scale captures people's self-beliefs about being predisposed to making decisions based on rational/analytical thinking as opposed to emotions and feelings. It includes such items as "When making decisions, I focus on objective facts rather than subjective feelings" and "When choosing between two options, one of which makes me feel better and the other better serves the goal I want to achieve, I choose the one that makes me feel better" (R), which are directly relevant to the current research ($\alpha = .83$).

Decision Avoidance. We developed three items to measure the tendency to avoid financial decisions (i.e., "I try to avoid situations that require me to make financial decisions," "I prefer not to make any decisions related to money," and "I don't like to think about issues involving investments and financial decisions"; 1 = strongly disagree, 7 = strongly agree; $\alpha = .83$). We used similar items, with necessary variations, to measure avoidance in several other everyday decision domains. These included decisions about clothes shopping ($\alpha = .92$), food choices ($\alpha = .96$), and healthcare/medical decisions ($\alpha = .91$; e.g., "I try to avoid situations that require me to make medical decisions," "I prefer not to make any decisions related to health," and "I don't like to think about issues involving medical decisions").

In addition to these measures, participants responded to several questions pertaining to their actual behaviors in the financial domain (e.g., "How well do you know the fee and interest structure in your bank account?" and "Have you ever tried to figure out how much you need to save for retirement?"). Such items go beyond attitudes and capture meaningful consequences of financial disengagement.

To examine alternative accounts, we also measured several additional constructs.

Objective and Subjective Financial Knowledge. We predicted that the relationship between perceived thinking style and financial decision avoidance would hold regardless of participants' levels of objective and subjective financial knowledge. In particular, we measured objective financial literacy using items validated in prior research (Agnew and Szykman 2005; Hung, Parker, and Yoong 2009; Lusardi and Mitchell 2007; van Rooij et al. 2011) and subjective consumer confidence in their financial knowledge (Fernandes et al. 2014; $\alpha = .94$).

Preference for Numerical Information. Financial decisions are inherently numerical, and one may wonder whether the relationship between the tendency to rely on affective vs. analytical thinking and financial decision avoidance can be accounted for by aversion to numerical

information. We therefore used items adapted from prior research (Fernandes et al. 2014) to measure the preference for numerical information.

Self-Efficacy. We measured self-efficacy (i.e., participants' generalized belief in their ability to perform well and accomplish tasks) using the generalized self-efficacy scale (Chen et al. 2001; $\alpha = .90$). This was done to examine an alternative explanation according to which an increased tendency to rely on emotions and feelings, as opposed to analytical thinking, is seen as less efficacious in general and, consequently, increases financial decision avoidance.

Demographic Variables. We measured demographic variables such as gender, age, education, and income to examine whether these variables account for the association between perceived thinking style and financial decision avoidance.

Results

Considering the large number of items used, we conducted exploratory factor analysis to examine whether the number of items can be reduced. Factor analysis results are reported in web appendix B. Results suggest six orthogonal factors, but their conceptual interpretation is not obvious. Some of the factors include conceptually distinct measures that we purposefully use to examine specific alternative accounts, so aggregating them into composite measures would sacrifice valuable information. Thus, we report our results using aggregated measures representing bank account knowledge, investment experience, and responsible credit card use, respectively (factors 1, 3, and 6, respectively), and additional nonaggregated measures pertaining to objective and subjective financial knowledge, preference for numerical information, and self-efficacy. Using the raw items does not change the results.

Table 1 shows the correlations among the variables. For LR, lower ratings represent increased perceived tendency to rely on emotions, rather than analytical thinking, when making decisions.

Consistent with our prediction, regression analysis (table 2) reveals that perceived tendency to rely on emotion is associated with the tendency to avoid financial decisions, and this association remains strong even after we control for multiple alternative constructs and demographic variables ($b = -.44$, $SE = .11$, $t(137) = -3.98$, $p < .001$), including objective financial knowledge ($b = -.07$, $SE = .06$, $t(137) = 1.09$, $p = .28$), subjective financial knowledge ($b = -.14$, $SE = .08$, $t(137) = 1.68$, $p = .10$), preference for numerical information ($b = .17$, $SE = .15$, $t(137) = 1.09$, $p = .28$), self-efficacy ($b = -.38$, $SE = .12$, $t(137) = -3.16$, $p < .01$), and age ($b = -.01$, $SE = .01$, $t(137) = -.79$, NS). The association between LR and financial decision avoidance thus cannot be explained solely by

perceived knowledge, decision self-efficacy, individual differences in preference for numerical information, or demographic factors. Although these constructs were sometimes correlated with financial decision avoidance by themselves, none appears to account for the relationship between perceived thinking style and financial decision avoidance.

In addition to our focal measure of financial decision avoidance, we also found significant correlations between perceived thinking style and several real-life financial behaviors. These are described in table 1 (correlations with items not listed in table 1 did not reach significance).

One may wonder if a tendency to rely on affect in decisions is associated with increased decision avoidance in general. Maybe people who believe they tend to rely on emotions, as opposed to rational or analytical thinking, struggle with all types of decisions. However, examination of avoidance tendencies in multiple domains other than financial (i.e., clothes shopping, food buying, and medical/healthcare decisions) casts doubt on this possibility, suggesting instead that the association between thinking-style self-beliefs and decision avoidance is domain-specific. Perceived thinking style was uncorrelated with decision avoidance tendencies in clothes shopping ($r = -.07$, $p > .40$) and medical/healthcare decisions ($r = -.04$, $p > .50$). Interestingly, perceived thinking style was correlated with a tendency to avoid food choices ($r = -.27$, $p < .01$), perhaps because people believe that food choices should generally not be based on emotions (e.g., emotional eating), and therefore believing that they tend to rely on emotions increases their tendency to avoid such choices (e.g., due to guilt; Gardner et al. 2014; Garg, Wansink, and Inman 2007). This hypothesis, however, is beyond the scope of the current research and may be investigated in future research.

STUDY 1B: ROBUSTNESS AND GENERALIZABILITY

Study 1B was designed to examine the robustness and generalizability of the relationship between perceived thinking style and financial decision avoidance. We used a different sample, different measures of perceived decision style, and additional measures of actual financial decision avoidance. In particular, we included a larger number of items measuring participants' financial decision avoidance in their daily lives. Such factual measures (e.g., "Do you know the interest rate on your credit card?") represent consequential behaviors and tendencies, and they are unlikely to be influenced by participants' responses to our thinking-style measures.

TABLE 1
CORRELATION ANALYSIS (STUDY 1A)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Lay rationalism	1															
2. Financial decision avoidance	-.42***	1														
3. Clothing decision avoidance	-.07	.39***	1													
4. Food decision avoidance	-.27*	.51***	.50***	1												
5. Medical decision avoidance	-.04	.38***	.46***	.36***	1											
6. Objective financial knowledge	.42***	-.29***	-.05	-.35***	-.12	1										
7. Subjective financial knowledge	.06	-.23**	-.09	-.01	-.20*	.17*	1									
8. Preference for numerical info.	.24**	-.15	.08	.01	-.04	.33***	.33***	1								
9. Self-efficacy	.21**	-.40***	-.23**	-.38***	-.36***	.28***	.41***	.44***	1							
10. Investment experience	.29***	-.20*	.06	-.01	-.08	.39***	.38***	.23*	.29***	1						
11. Responsible card Use	.27***	-.30***	-.13	-.32***	-.13	.28***	.23*	.22**	.28***	.28***	1					
12. Bank account knowledge	.26**	-.39***	-.20*	-.18*	-.23**	.25*	.40***	.17*	.35***	.34***	.27***	1				
13. Age	.34***	-.19*	.03	-.17*	-.11	.46***	.09	.19*	.05	.35***	.12	.17*	1			
14. Gender	.03	.18*	.34***	.19*	.22**	.15	.09	.20*	-.13	.05	-.02	-.17*	.13	1		
15. Education	.04	.03	.05	.06	-.08	.26**	.03	.04	-.02	.22**	.11	.01	.09	-.04	1	
16. Income	-.03	-.04	-.05	-.07	-.23**	.14	.21*	.03	.28***	.36***	.11	.09	.09	-.08	.21*	1

NOTES.—* $p < .05$, ** $p < .01$, *** $p < .001$.

Investment experience: "Have you ever tried to figure out how much you need to save for retirement?" (1 = yes; 0 = no); "Have you ever bought a savings bond or other bonds?" (1 = yes; 0 = no); "Have you ever invested in mutual funds?" (1 = yes; 0 = no). Responsible card use: "Over the past two years, how frequently have you been late paying credit card bills?" (R) (1 = never, 3 = once or twice since had credit cards, 5 = once or twice per year, and 7 = more than twice per year); "Please indicate below the option that best describes your payments on credit cards." (1 = generally pays minimum each month, 4 = occasionally pays off monthly, and 7 = always pays off monthly). Bank account knowledge: "How carefully/closely do you read 1) credit card sign-up information, 2) bank account service agreement, and 3) financial analysis" (1 = don't read at all, 3 = just glance at it, 5 = read enough to understand the contract, 7 = read every word); "How well do you know the fee and interest structure in your bank account?" (1 = not at all to 7 = very much).

TABLE 2
REGRESSION MODELS TESTED IN STUDY 1A

<i>Dependent variable: Financial decision avoidance</i>								
<i>Independent variable</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>	<i>Model 6</i>	<i>Model 7</i>	<i>Model 8</i>
Lay rationalism (LR)	-.58(.10)***	-.48(.09)***	-.47(.10)***	-.47(.10)***	-.44(.11)***	-.44(.10)***	-.43(.10)***	-.42(.11)***
General avoidance tendency		.54(.07)***	.54(.07)***	.52(.08)***	.50(.08)***	.48(.08)***	.49(.08)***	.44(.09)***
Objective financial knowledge					-.06(.06)	-.05(.06)	-.04(.06)	-.03(.06)
Subjective financial knowledge						-.16(.07)*	-.15(.07)*	-.12(.07)
Pref. for numerical information							-.08(.13)	.01(.14)
Self-efficacy								-.17(.12)
Age			-.004(.01)	-.01(.01)	-.002(.01)	-.002(.01)	-.002(.01)	-.01(.01)
Gender				.15(.21)	.19(.21)	.25(.21)	.26(.21)**	.22(.21)
Education				.05(.08)	.07(.08)	.06(.08)	.06(.08)	.05(.08)
Income				-.02(.06)	.02(.06)	.05(.06)	.05(.06)	.07(.06)
R ²	.18	.41	.41	.41	.41	.44	.44	.45
Adjusted R ²	.17	.40	.39	.38	.38	.41	.40	.41
F-value	31.67***	48.96***	32.51***	16.20***	14.02***	13.42***	11.90***	11.01***

NOTE.— General avoidance tendency: The composite measure of “clothing decision avoidance,” “food decision avoidance,” and “medical decision avoidance.”

Method

Participants ($N = 119$; mean age = 42.39; 47.1% women) were recruited at a large airport. An experimenter approached people who were waiting for their flight and invited them to participate in a short survey about decision making in exchange for candy. As in study 1A, the survey consisted of several presumably unrelated questionnaires. The items used in this study are listed in web appendix A.

Thinking Style Self-Perceptions. Considering the conditions in which data for this study were collected (i.e., consumers waiting at the airport), and the need for brevity, we measured thinking-style self-perceptions using four representative items adapted from the Situation-Specific Thinking Style scale (SSTS; Novak and Hoffman 2009), in addition to three items from the LR scale used in study 1A (Hsee et al. 2015). These two composite measures were correlated ($r = .46, p < .001$) and we combined them to form an index of perceived thinking style. See web appendix A.

Decision Avoidance. We used the same decision-avoidance-tendency items from study 1A, as well as 14 items pertaining to the tendency to avoid financial information and financial decisions in daily life (e.g., “When you sign up for a credit card, how closely do you read the information related to interest rates and other financial terms?” and “Have you ever tried to figure out how much you need to save for retirement?”; see web appendix A for a full list). We believe that items pertaining to actual daily behavior are unlikely to be influenced by momentary states, and thus constitute a strong test.

Demographic Variables. We measured demographic variables such as gender, age, education, and income.

Results

Factor analysis revealed five underlying factors, and these were used to test the relationship between perceived thinking style and financial decision avoidance. Factor analysis results are reported in web appendix C.

Results were similar to those of study 1A (see table 3). First, perceived thinking style was significantly associated with the self-reported tendency to avoid financial decisions ($r = -.25, p = .007$).

As in study 1A, regression analysis (table 4) reveals that perceived tendency to rely on emotion is associated with the tendency to avoid financial decisions, and this association remains strong even after we control for demographic variables ($b = -.35, SE = .18, t(111) = -2.02, p = .046$), including age ($b = .00, SE = .01, t(111) = -.02, p = .98$), gender ($b = -.38, SE = .30, t(111) = -1.24, p = .22$), education ($b = -.16, SE = .10, t(111) = -1.60, p = .11$), and income ($b = -.09, SE = .06, t(111) = -1.50, p = .14$). The effect of perceived thinking style on financial decision avoidance was the same when we used only the SSTS ($b = -.33, SE = .15, p < .05$) or lay rationalism ($b = -.34, SE = .13, p < .05$) subscales as predictors.

More importantly, we found a significant or marginally significant relationship between perceived thinking style and several factors reflecting important real-life financial behaviors, including (1) carefully reading financial information ($r = .25, p = .005$), (2) actual investment experience ($r = -.18, p = .056$), and (3) debt management habits ($r = -.15, p = .10$). One item (“How often do you look for ways to improve your financial situations?”) was not significantly correlated with thinking style but nonetheless pointed in the same direction ($r = .13, p = .17$). Two items related to opening and using a bank account were uncorrelated with thinking style (both $r < .1, p > .32$), perhaps

TABLE 3
CORRELATION ANALYSIS (STUDY 1B)

	1	2	3	4	5	6	7	8	9	10	11
1. Perceived thinking style	1	-.25**	.21*	-.16	.88**	.13	-.03	-.10	.28**	.11	.09
2. Financial decision avoidance	-.25**	1	-.14	.19*	-.20*	-.22*	.20*	-.02	-.18	-.19*	-.17
3. Carefully reading financial information	.21*	-.14	1	-.19*	.11	.32***	-.10	.15	.02	.26**	.02
4. Actual investment experience	-.16	.19*	-.19*	1	-.07	-.27**	.19*	-.14	-.20*	-.29**	-.32***
5. Debt management habits	.88**	-.20*	.11	-.07	1	.04	.03	-.12	.20*	.06	.17
6. Improve financial situations	.13	-.22*	.32***	-.27**	.04	1	-.35***	.08	.03	.11	.10
7. Using bank account	-.03	.20*	-.10	.19*	.03	-.35***	1	-.07	.01	.05	.05
8. Age	-.10	-.02	.15	-.14	-.12	.08	-.07	1	.08	-.07	.21*
9. Gender	.28**	-.18	.02	-.20*	.20*	.03	.01	.08	1	.01	-.01
10. Education	.11	-.19*	.26**	-.29**	.06	.11	.05	-.07	.01	1	.14
11. Income	.09	-.17	.02	-.32***	.17	.10	.05	.21*	-.01	.14	1

NOTES.—* $p < .05$, ** $p < .01$, *** $p < .001$.

Carefully reading financial information: "How carefully/closely do you read 1) credit card sign-up information, 2) bank account service agreement, and 3) financial analysis?" (1 = don't read at all, 3 = just glance at it, 5 = read enough to understand the contract, 7 = read every word); "How well do you know the fee and interest structure in your bank account?" (1 = not at all to 7 = very much), "How accurately do you know your current credit score?" (1 = I have no idea; 7 = I know exactly). Actual investment experience: "Have you ever invested in mutual funds?" "Have you ever invested in individual stocks?" "Have you ever bought a savings bond or other bonds?" (1 = yes; 2 = no), "Have you ever tried to figure out how much you need to save for retirement?" (1 = yes; 2 = no). Debt management habits: "Over the past two years, how frequently have you been late paying credit card bills?" (1 = never, 3 = once or twice since had credit cards, 5 = once or twice per year, and 7 = more than twice per year), "How often have you bounced a check?" (1 = never; 7 = a few times); Improve financial situations: "How often do you look for ways to improve your financial situations?" (1 = never; 7 = always). Using bank account: "How often do you check your bank account?" (R) (1 = never; 7 = always), "Have you ever opened a savings account or bought a CD?" (1 = yes; 2 = no).

TABLE 4
REGRESSION MODELS TESTED IN STUDY 1B

<i>Dependent variable: Financial decision avoidance</i>					
<i>Independent variable</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>
Perceived thinking style	-.45(.17)**	-.46(.17)**	-.40(.17)*	-.38(.18)*	-.35(.18)*
Age		-.01(.01)	-.004(.01)	-.004(.01)	.000(.01)
Gender			-.37(.30)	-.35(.30)	-.38(.30)
Education				-.18(.10)	-.16(.10)
Income					-.09(.06)
R²	.06	.06	.07	.10	.12
Adjusted R²	.05	.05	.05	.07	.08
F-value	7.45**	3.83*	3.05*	3.20*	3.04*

because bank accounts are more of a ubiquitous necessity, and people tend to own them regardless of their thinking style. See [table 3](#).

Studies 1A and 1B: Discussion

Studies 1A and 1B show several important points. First, although these studies are correlational and do not demonstrate causality, they suggest that believing one is predisposed to affective or feeling-based thinking, as opposed to analytical thinking, is associated with an increased tendency to avoid financial decisions and to neglect certain consequential financially responsible behaviors in real life. Of note, the behavioral measures we used reflect a broad array of actual, consequential financial decision and financial information avoidance behaviors. Furthermore, this

association emerges naturally, in the absence of any experimental manipulation.

Second, the findings of study 1A in particular cast doubt on the possibility that the relationship between perceived thinking style and decision avoidance reflects a general or "spillover" phenomenon. Contrasting financial and healthcare decisions is particularly insightful in this regard, because pretests we ran confirm that consumers perceive healthcare decisions as equally—and sometimes more—important, consequential, and requiring specialized knowledge compared to financial decisions (we examine healthcare decisions in greater detail in studies 3B and 5). The relationship between perceived affective thinking and financial decision avoidance is therefore unlikely to reflect the perception that affective thinking is simply inadequate or ineffective in general. Rather, the results support our

proposition that this relationship is domain-specific, and has to do with people's lay beliefs about the thinking style that is appropriate in specific domains.

Study 1A also casts doubt on the possibility that the relationship between perceived thinking style and financial decision avoidance is due to objective or subjective financial knowledge, self-efficacy, preference for numerical information, or variations in gender, age, education, and income. Although some of these constructs were correlated with financial decision avoidance by themselves, none accounted for the relationship between perceived thinking style and financial decision avoidance, and controlling for these constructs had little or no effect on the strength of that relationship.

STUDY 2: PARTICIPATION IN REAL FINANCIAL ACTIVITIES

Study 2 extends studies 1A and 1B in two important ways. First, rather than measuring individual decision style, we experimentally manipulated people's perceptions of their own decision style (affective vs. analytical) using a false-feedback manipulation adapted from prior research (Barden and Petty 2008; Tormala and Petty 2002). This establishes the causal relationship between perceived decision style and financial decision avoidance.

Second, rather than using self-reported measures of decision avoidance, we measured the effect of perceived decision style on consequential behavior. Specifically, we test whether perceived thinking style has an influence on a choice that involves real consequences for participants themselves. This bolsters the validity and generalizability of our findings.

Method

One hundred two undergraduates at a large public university participated in this experiment as part of a session of unrelated studies in exchange for course credit. Participants were randomly assigned to one of two conditions in a two-way (perceived decision style: affective vs. analytical) between-subjects design.

Participants completed two purportedly unrelated tasks. In the first task, we manipulated participants' self-perceptions of their decision-making style, using a false-feedback manipulation adapted from prior research (Barden and Petty 2008; Tormala and Petty 2002). We told participants that they would be completing a survey regarding decision making in order to help them learn about how they make decisions in general. Participants first made nine generic product choices unrelated to financial decisions, such as choosing musical instruments, gift options, and sporting goods.

After completing this survey, they received a brief report on their alleged results, which constituted our manipulation

of perceived decision style. Depending on condition (affective vs. analytical), participants read the following information: "You are an emotion (reason)-based decision maker. Compared to the decisions of other participants who share similar demographic characteristics with you, your decisions are mostly driven by emotions (reasons) rather than reasons (emotions)." This information was accompanied by a pie chart showing 83% emotions (reasons) and 17% reasons (emotions). To ensure participants understood the manipulation and to increase its effectiveness, we provided them with a short description of what emotion-based (reason-based) decision style meant (see web appendix D). To further reinforce this self-perception manipulation, we told participants that we were interested in learning about their life experiences as emotion-based (reason-based) decision makers, and we asked them to reflect on a successful prior decision-making experience in which they relied on emotion or reason, depending on condition, and to provide a brief description of that experience. We specifically asked participants to write about a decision that turned out well, to ensure that they felt efficacious and positive about their decision-making style regardless of condition. A separate pretest ($N = 121$) confirmed that this thinking-style manipulation was effective in influencing participants' perceptions of their decision-making style ($1 = \text{more analytical}$, $7 = \text{more affective}$; $M_{\text{analytical}} = 2.81$, $SD = 1.61$ vs. $M_{\text{affective}} = 3.81$, $SD = 1.76$; $F(1, 119) = 10.54$, $p = .001$). We also validated that the manipulation had no effect on participants' perceived expertise or confidence in making financial decisions, and that it did not create demand effects (see web appendix E).

Upon completing the first task, participants received a purportedly unrelated questionnaire in which they indicated whether they would commit to attending a workshop on financial decisions, to be held on campus at a later date, where they would learn about financial planning, debt management, investing, and general financial well-being. Participants who agreed to participate in the workshop provided their email address, and we told them that we would follow up with registration information. Commitment to participate served as our dependent measure.

Results

Consistent with our prediction, perceived decision style influenced the tendency to avoid versus engage in a real activity related to financial decisions. Whereas 45.5% of participants in the analytical condition chose to attend the financial workshop, this dropped to 25.5% in the affective condition ($\chi^2(1) = 4.35$, $p = .037$). Believing they were affective decision makers increased participants' tendency to pass on a real opportunity to better their financial well-being.

One may wonder if making people perceive themselves as affective decision makers influenced their sense of

expertise, experience, or confidence in making financial decisions. We ran a separate study ($N = 109$) to test the alternative account. We found that the manipulation of perceived decision style did not change people's perceptions of their prior experience ($F(1, 108) < 1, p = .58$) or their confidence making financial decisions ($F(1, 108) = 1.06, p = .31$). See web appendix E for details. Further, study 2 appears inconsistent with this alternative account. The effect is unlikely to be driven by a decrease in perceived expertise or decision confidence in the affective condition, because one would expect these to increase, rather than decrease, the motivation to participate in a free educational workshop. In sum, although decision confidence and perceived experience may play a role in these effects under certain circumstances, our findings cast doubt on the possibility that these processes were driving our results.

One may also wonder if our manipulation introduced experimental demand. Maybe telling people they are affective thinkers led them to feel that we were expecting them to choose in a particular way. However, the results of study 2 seem inconsistent with this alternative account. We found that the effect persisted when a significant time commitment and an opportunity to improve one's financial education were at stake, indicating our effect is unlikely to be driven by experimental demand (Frederick et al. 2009; Sela and LeBoeuf 2017). We later also tested an experimental demand explanation directly, for the same manipulation (reported in study 5).

Discussion

Study 2 demonstrates the causal effect of perceived thinking style on financial decision avoidance. We experimentally manipulated people's perceived thinking style, and we found that leading people to view themselves as affective (vs. analytical) decision makers led to a 35% drop in their willingness to participate in an activity related to financial decisions, despite the fact that doing so had the potential to improve their financial well-being in the long run. We used a behavioral measure of decision avoidance that involves real consequences for participants, which bolsters the validity and generalizability of our findings.

STUDY 3A: TESTING THE UNDERLYING PROCESS THROUGH MODERATED MEDIATION

Study 3A extends study 2 in four important ways. First, to show generalizability, we used a different manipulation of perceived decision style. Rather than a false-feedback manipulation, we used a perceived-thinking-style manipulation adapted from prior research on "trust in feelings" (Avnet et al. 2012).

Second, we used a different behavioral measure to capture people's real-time tendency to evade (or engage in)

financial decisions. This bolsters the validity and generalizability of our findings.

Third, study 3A tests the underlying process. We proposed that believing they are inclined to affective thinking leads people to experience self-concept incongruity with the domain of financial decisions (i.e., "financial decisions are not me" or "I am not the kind of person who makes financial decisions"), which in turn increases decision avoidance. As a measure of perceived self-concept incongruity, we used a modified version of the Inclusion of Other in Self scale (Aron, Aron, and Smollan 1992), which is often used to measure the perceived similarity, overlap of traits and values, and sense of shared identity between the self and another entity (for a similar approach, see Bartels and Rips 2010; Fitzsimons and Kay 2004; Sela, Wheeler, and Sarial-Abi 2012).

Fourth, we examined whether the indirect path from perceived thinking style to financial decision avoidance, through self-concept incongruity, is moderated by people's lay beliefs regarding the appropriateness of affective thinking for financial decisions. If our theory is correct, then the effect of perceived affective thinking style on financial decision avoidance should be particularly pronounced among people who believe that affective thinking is incompatible with financial decisions, and attenuated among people who do not hold such a lay belief or hold it to a lesser degree.

Method

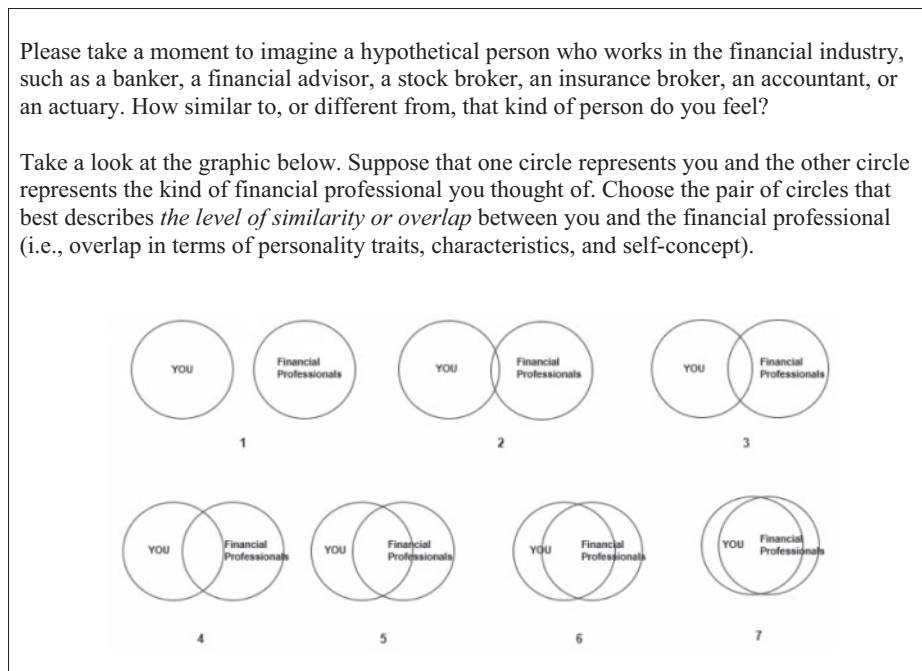
Participants ($N = 102$; mean age = 35; 60.8% women) were recruited on Amazon Mechanical Turk. Only participants who had an MTurk approval rate of 95% or higher and lived in the United States were permitted to participate. Participants were randomly assigned to one of two between-subjects conditions (perceived decision style: affective vs. analytical).

The study included two unrelated tasks. In the first task, we manipulated perceived thinking style using a trust-in-feelings manipulation adapted from prior research (Avnet et al. 2012). Following a brief explanation about the distinction between using feelings versus analytical reasoning to make decisions, participants in the affective (analytical) condition were asked to recall and describe two situations in which they had confidence in their feelings (analytical thinking), they relied on their feelings (analytical thinking) to make a judgment or a decision, and that was the right thing to do. A separate pretest ($N = 64$) confirmed that this manipulation had the intended effect on participants' perceptions of their own decision-making style ($1 = \text{more analytical}$, $7 = \text{more affective}$; $M_{\text{analytical}} = 2.91$, $SD = 1.57$ vs. $M_{\text{affective}} = 4.09$, $SD = 1.55$; $F(1, 62) = 9.24, p = .003$).

In the second, purportedly unrelated task, we measured our dependent variable, the tendency to avoid financial decisions. We told participants that they would next be

FIGURE 2

STUDY 3A: MEASURE OF PERCEIVED SELF-CONCEPT CONGRUITY WITH THE FINANCIAL DOMAIN (ADAPTED FROM ARON ET AL. 1992)



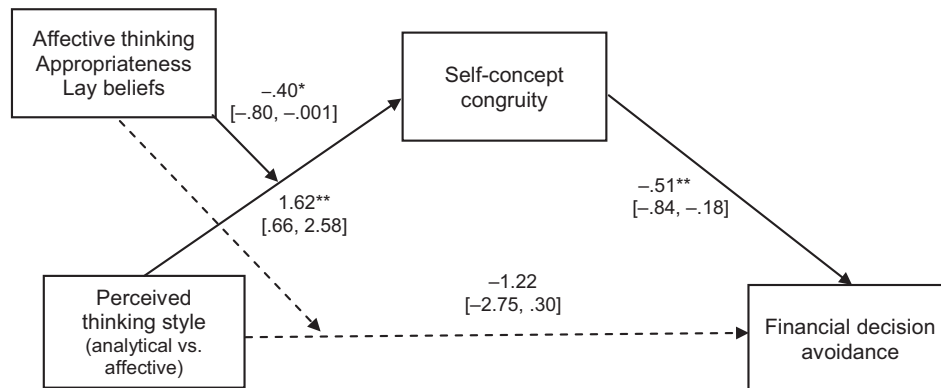
working on another, unrelated decision task, and that they could choose which specific task they preferred to work on. Participants then chose one of two options. Specifically, they chose between an assignment that included “evaluating options and making decisions related to financial investments, banking, saving, and borrowing,” and an alternative generic assignment that included “evaluating options and making decisions in various other areas of daily life.” We told participants that the two alternative assignments (i.e., the focal financial assignment and the alternative generic assignment) were equally complex and important and should take the same amount of time to complete.

Our focal dependent measure was which assignment participants preferred to work on: the focal option (i.e., financial) or the alternative generic assignment. We predicted that leading participants to perceive themselves as affective, as opposed to analytical, decision makers would decrease their desire to work on the financial assignment. Note that this behavioral measure captures participants’ genuine real-time tendency to choose or avoid certain types of decisions. After choosing their preferred assignment, participants completed a filler task in their chosen domain, where they made several decisions about financial or various daily products for those who chose the alternative general assignment.

To measure our hypothesized mediator, perceived self-concept incongruity, we used a modified version of the graphic Inclusion of Other in Self (IOS) scale (Aron et al. 1992). See figure 2. Specifically, we asked participants to imagine a prototypical person who works in the financial industry, such as a banker, a financial advisor, or a stock broker. Then, participants saw seven pairs of circles varying in their degree of overlap, one representing them and the other representing a prototypical financial professional. Participants chose the picture that best described the level of felt overlap between them and the prototypical financial professional in terms of personality traits, characteristics, and thinking style ($\alpha = .78$, combined to an index of self-concept congruity). We used perceived overlap with a prototypical person associated with the financial domain as a means of measuring participants’ perception that they possessed the prototypical traits associated with that domain (i.e., the extent to which “I’m that kind of person”). Prior work suggests that attitudes and perceptions regarding individual exemplars (e.g., an older person, Albert Einstein) normally reflect corresponding attitudes and perceptions regarding the categories and domains with which these exemplars are associated (e.g., old age, high intelligence, respectively; Dijksterhuis et al. 1998; Levy 2009). Thus, perceived overlap between the self and a prototypical

FIGURE 3

THE ROLE OF SELF-CONCEPT (IN)CONGRUITY AND LAY BELIEFS (STUDY 3A)



financial professional should reflect the extent to which people feel they share the traits, characteristics, and identity typically associated with the financial domain.

Next, we measured our moderator, perceived appropriateness of affective versus analytical thinking in financial decisions (“When it comes to financial decisions, what would be the most appropriate way to make a decision?”; 1 = completely rely on analytical reasoning, 7 = completely rely on emotions). Responses on this measure were unaffected by the experimental manipulation ($F(1, 100) = 1.62, p = .21$), suggesting that it reflects an individual lay belief.

To examine an alternative account, we measured confidence in making financial investment decisions (i.e., “How confident are you in making financial investment decisions?” “How difficult is it for you to make financial investment decisions? (R)” “How easy is it for you to make financial investment decisions?” “How well do you think you can make financial investment decisions?”; averaged to an index, $\alpha = .87$).

Results

Decision Avoidance. Consistent with our prediction, perceived decision style influenced preference for the financial task. Whereas 55.3% of participants chose to work on the financial assignment in the analytical condition, this dropped to 34.5% in the affective condition ($\chi^2(1) = 4.44, p = .035$).

Underlying Process. We hypothesized that when people believe they have an affective thinking style, they see themselves as less psychologically congruent with the financial domain. This, in turn, increases their tendency to avoid such decisions. Consistent with this mediation hypothesis, respondents in the affective condition indicated a

lower degree of felt overlap with a prototypical financial professional ($M_{\text{affective}} = 3.29, SD = 1.46$ vs. $M_{\text{analytical}} = 4.15, SD = 1.44$; $F(1, 100) = 8.85, p = .004$). Note that this finding extends prior research on thinking styles by suggesting that thinking-style incongruity may lead people to experience self-concept incongruity with domains and domain exemplars associated with specific thinking styles.

Further, a bias-corrected mediation analysis (Hayes 2013; 5,000 bootstrap samples) suggests that self-concept incongruity mediated the effect of perceived affective vs. analytical thinking on financial decision avoidance ($a \times b = -.45$, 95% CI $[-1.07, -.12]$). See figure 3.

Moderated Mediation. Next, we ran a moderated mediation analysis (Hayes 2013; model 8; 5,000 bootstrap samples) to test our hypothesis that the indirect effect of thinking style on decision avoidance, through self-concept incongruity, would be moderated by lay beliefs regarding the appropriateness of affective versus analytical thinking in financial decisions. Results are consistent with our prediction, revealing a significant moderated mediation ($B = .20$, 95% CI $[.01, .55]$). Specifically, the indirect effect of thinking style was significant one SD below ($a \times b = -.62$, 95% CI $[-1.37, -.17]$) and at the mean level of perceived thinking style appropriateness ($a \times b = -.43$, 95% CI $[-.98, -.11]$), but not one SD above the mean ($a \times b = -.13$, 95% CI $[-.63, .22]$). As expected, our indirect effect was significantly attenuated among people who did not hold the lay belief that affective thinking was inappropriate for financial decisions, or held it to a lesser degree.

Alternative Accounts. Ancillary measures cast doubt on an alternative account based on decision confidence. As in study 2, our decision-style manipulation had no effect on decision confidence ($F(1, 100) = 1.92, p = .169$). Moreover, a separate pretest ($N = 75$; see web appendix F)

suggests that the experimental manipulation used in study 3A had no effect on perceived financial knowledge ($F(1, 73) < 1, p = .66$), self-efficacy perceptions ($F(1, 73) < 1, p = .34$), or preference for numerical information ($F(1, 73) < 1, p = .65$). Decision confidence or subjective knowledge is therefore unlikely to be driving our results.

Discussion

Study 3A provides direct evidence of the process underlying our effect. Believing that they tend to use emotions in decisions leads people to see themselves as more removed from the financial domain (i.e., the domain is “less me,” “I am not that kind of person”), which in turn increases decision avoidance. The results also cast doubt on alternative accounts based on subjective knowledge or decision confidence.

Further, this relationship is influenced by the extent to which people believe affective thinking style is inappropriate for financial decisions in the first place. The findings thus support our theory regarding the mediating role of perceived self-concept incongruity and the moderating role of lay beliefs regarding thinking-style appropriateness.

STUDY 3B: THE MODERATING EFFECT OF DECISION DOMAIN

Study 3B was designed as a follow-up on study 3A, to test whether perceived decision style has a comparable effect on a parallel measure of self-concept congruency with a professional in a different domain. We examined self-concept congruency with a medical professional, because pretesting indicates that medical decisions are perceived as equally important and consequential ($M_{\text{financial}} = 5.68$ vs. $M_{\text{medical}} = 5.99$ on a seven-point scale; $t(70) < 1$, NS). However, pretesting also indicates that whereas affect is seen as incompatible with financial decisions ($M = 2.69$ on a five-point scale where 1 = extremely inappropriate; 5 = extremely appropriate), it is seen as significantly less incompatible with decisions related to medical treatment ($M = 3.40$; $F(1, 100) = 9.94, p = .002$). Analytical thinking is seen as compatible with both financial and medical decisions, although more so in financial decisions ($M_{\text{financial}} = 4.70$ vs. $M_{\text{medical}} = 4.22$; $F(1, 100) = 11.67, p = .001$). Looked at another way, the difference between the perceived compatibility of analytical and affective thinking is significantly attenuated for medical decisions, compared with financial decisions ($F(1, 100) = 19.93, p < .001$).

Based on these pretests, we predicted that perceiving themselves as affective thinkers would decrease self-concept congruity with a prototypical financial professional, but not with a prototypical medical professional.

Method

Participants ($N = 701$; mean age = 35; 67% women) were recruited on Amazon Mechanical Turk. Only participants who had an MTurk approval rate of 95% or higher and lived in the United States were permitted to participate. Participants were randomly assigned to one of four conditions in a 2 (perceived decision style: affective vs. analytical) \times 2 (decision domain: financial vs. medical) between-subjects design.

As in study 3A, we manipulated perceived thinking style using the trust-in-feelings manipulation (Avnet et al. 2012) and measured perceived self-concept incongruity using the IOS graphic scale (Aron et al. 1992). Depending on decision domain condition, we measured participants' self-concept incongruity with a prototypical financial or medical professional. Specifically, in the medical condition, we asked participants to imagine a prototypical person who works in the medical industry, such as a physician, a nurse, or a dentist. Participants saw seven pairs of circles varying in their degree of overlap, one representing them and the other representing a prototypical medical professional. They chose the picture that best described the level of felt overlap between them and the prototypical medical professional in terms of personality traits, characteristics, and thinking style.

Results and Discussion

The results reveal the predicted thinking style \times decision domain interaction effect ($F(1, 697) = 7.57, p = .006$). Whereas participants in the affective condition reported lower self-concept congruence with financial professionals ($M_{\text{affective}} = 3.39, SD = 1.60$ vs. $M_{\text{analytical}} = 3.84, SD = 1.57$; $F(1, 697) = 6.53, p = .01$), perceived thinking style had no comparable effect on self-concept congruence with medical professionals ($M_{\text{affective}} = 3.65, SD = 1.78$ vs. $M_{\text{analytical}} = 3.43, SD = 1.54$; $F(1, 697) = 1.72, p = .19$). These results support our suggestion that perceiving themselves as affective decision makers uniquely decreases self-concept congruence in the financial domain.

STUDY 4: MODERATION BY DECISION FRAMING

Study 4 has two goals. First, it bolsters the robustness and generalizability of our findings by using a new behavioral measure of decision avoidance. After manipulating perceived thinking style, we asked participants to make 10 sequential decisions regarding financial products. In each decision, participants could choose one of three options or skip that decision and move on to the next decision. This allowed us to measure the number of times each participant skipped a decision, as a behavioral measure of the tendency to avoid financial decisions.

Second, study 4 uses a moderation approach (Spencer, Zanna, and Fong 2005) to further test our theory that the effect of perceived decision style on decision avoidance reflects the associations people have with financial decisions. We kept the content of the decisions identical but framed them differently, either as decisions about “financial investment for retirement” or as decisions about “lifestyle in retirement.” Consistent with the moderation findings in study 3A, we conceptualized that when people think of decisions in a financial context, they spontaneously retrieve the associations and lay beliefs that they have regarding financial decisions, including beliefs about the appropriateness of different modes of thinking, and these associations in turn lead them to avoid financial decisions when they believe that they tend to rely on emotions. However, when the same financial decision is labeled in a different way (e.g., as a decision about lifestyle in retirement instead of a retirement investment decision), people’s associations with financial decisions should be less salient, and this should attenuate the tendency to avoid decisions when people believe they are affective decision makers.

Method

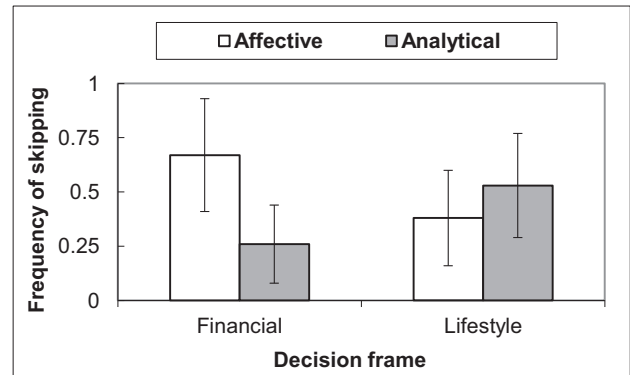
Participants and Design. Participants ($N = 147$; mean age = 36; 50% women) were recruited on Amazon Mechanical Turk. Only participants who had an MTurk approval rate of 95% or higher and lived in the United States were permitted to participate. Participants were randomly assigned to one of two conditions in a 2 (perceived decision style: affective vs. analytical) \times 2 (decision frame: financial vs. lifestyle) between-subjects design.

Procedure. The study included two tasks. We first manipulated decision-style self-perceptions using the same false-feedback manipulation used in studies 2 and 3. After completing the decision-style manipulation, participants moved to the purportedly unrelated second task, in which they made 10 sequential choices among annuities. We used an annuities investment decision adapted from prior research (Shu, Zeithammer, and Payne 2016). To manipulate decision frame, we presented choice problems either as financial investment decisions for retirement or as decisions about lifestyle in retirement, depending on condition. In each choice problem, the choice options themselves were identical across conditions (see web appendix G).

In each choice problem, participants could choose one of three annuity options, described on four attributes, or avoid the decision by choosing to skip it and move on to the next choice problem. In each choice problem, we asked participants to pick the option that seemed best. We told participants that they could receive a bonus payment based on the average quality of those decisions they did not skip and that they would not be penalized for skipped decisions. We used these instructions to incentivize participants to

FIGURE 4

STUDY 4: THE EFFECT OF PERCEIVED THINKING STYLE AND DECISION FRAME ON DECISION AVOIDANCE



NOTE.—Error bars represent 95% confidence intervals.

choose an option whenever they felt confident in their ability to find the best option, but to avoid choosing when they did not feel comfortable doing so. The number of choice problems participants chose to avoid (i.e., skip) served as our dependent measure.

Results

Given that the dependent measure was a count of the number of skipped questions, we used Poisson regression to analyze the data (see Crolic and Janiszewski 2016 for a similar approach). Results are virtually identical when we use binomial logistic regression analysis with the number of trials set at 10.

Poisson regression analysis on the number of skipped decisions showed a perceived decision style \times decision frame interaction ($\chi^2(1) = 5.85, p = .016$) and no main effect of perceived decision style ($\chi^2(1) = 1.45, p > .20$) or decision frame ($\chi^2(1) = .09, p > .70$). See figure 4.

Replicating the findings of previous studies, participants making decisions framed as financial investments were more likely to avoid annuity investment decisions ($M = .67, SE = .13$) than those in the analytical condition ($M = .26, SE = .09; \chi^2(1) = 6.07, p = .014$). However, when the same choice options were framed as decisions about lifestyle, perceived decision style had no effect on decision avoidance ($M_{\text{analytical}} = .53, SE = .12$ vs. $M_{\text{affective}} = .38, SE = .11; \chi^2(1) = .81, p > .30$).

Discussion

Study 4 supports our proposition that the effect of perceived decision style on financial decision avoidance is driven by the specific associations and lay beliefs people

have regarding decisions in financial contexts. We kept the choice options identical and varied only whether the decision was framed as related to “financial investment for retirement” or “lifestyle in retirement.” Supporting our conceptualization, the effect of perceived decision style on decision avoidance was significant under a financial investment frame but not under a lifestyle frame. The lifestyle frame may have weakened the salience of people’s lay beliefs regarding the (in)appropriateness of using affective thinking. Thus, our effects appear to be driven by the specific associations people have regarding decisions in a financial context.

STUDY 5: THE EFFECT OF DECISION DOMAIN ON AVOIDANCE

Study 5 tests our proposition that the effect is particularly characteristic of financial decisions by examining the moderating effect of decision domain. We argue that perceiving themselves as affective decision makers increases people’s tendency to avoid financial decisions because they perceive affect as incompatible with decisions in that domain. Thus, the effect of perceived decision style on financial decision avoidance should be domain-specific: believing that one is inclined to rely on affect should increase decision avoidance in a financial context, but it should not necessarily have the same effect in other domains where emotions are seen as less inappropriate, such as decisions about medical treatment. We specifically contrasted financial and medical decisions because, as mentioned in study 3B, a series of pretests validated that decisions in both these domains are perceived as equally important and consequential but affective thinking is perceived as more incompatible with financial decisions compared to medical decisions.

Based on these pretests, we predicted that when participants perceive themselves as affective rather than analytical decision makers, they would be more likely to avoid financial decisions. However, the same self-perception should have an attenuated effect on decisions related to medical treatment. Finding such a thinking style \times decision domain interaction would also indicate that the effect goes beyond heuristic vs. systematic processing, because both financial and medical decisions are seen as highly consequential and should therefore be associated with systematic processing. Rather, it is the perceived type of processing (i.e., affective vs. analytical), not processing effort (i.e., heuristic vs. systematic), that would be driving the effect.

Method

Participants ($N = 251$; mean age = 36; 54% women) were recruited on Amazon Mechanical Turk. Only participants who had an MTurk approval rate of 95% or higher

and lived in the United States were permitted to participate. Participants were randomly assigned to one of four conditions in a 2 (perceived decision style: affective vs. analytical) \times 2 (decision domain: financial vs. medical) between-subjects design.

The study included two tasks. First, participants completed a perceived-decision-making-style manipulation identical to the one used in studies 2 and 4. Second, we used the same behavioral measure used in study 3A, asking participants to choose between two specific tasks.

Participants then chose one of two options. In the financial decisions condition, they chose between a focal financial assignment and an alternative generic assignment, as in study 3A. In the medical decisions condition, participants chose between an assignment that included “evaluating options and making decisions related to medical care, such as choosing doctors, treatments, and medications,” and the same alternative generic assignment that included “evaluating options and making decisions in various other areas of daily life.” In both conditions, we told participants that the two alternative assignments (i.e., the focal financial/medical assignment and the alternative generic assignment) were equally complex and important and should take the same amount of time to complete.

We measured which assignment participants preferred to work on: the focal option (i.e., financial or medical, depending on condition) or the alternative generic assignment, which was identical in both conditions. We predicted that perceiving themselves as affective, as opposed to analytical, decision makers would decrease participants’ willingness to work on the financial assignment, but would have an attenuated effect on their desire to work on the medical assignment. After choosing their preferred assignment, participants completed a filler task in their chosen domain, as in study 3A.

Results

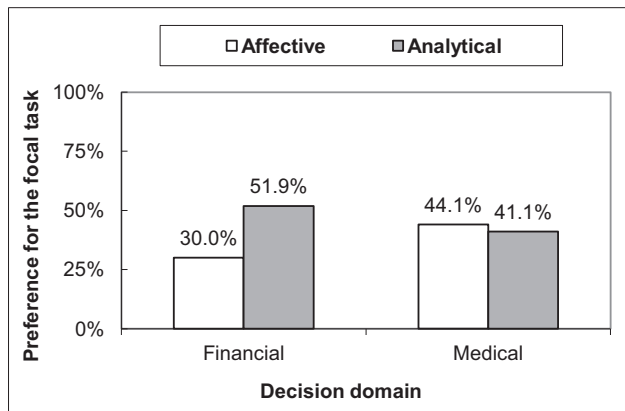
We hypothesized that the effect of perceived decision style on decision avoidance would be moderated by decision domain. Specifically, perceiving themselves as affective decision makers should increase people’s tendency to avoid financial decisions, but it should not have the same effect on medical decisions where emotions are seen as less of a hindrance.

Consistent with our hypothesis, a perceived decision style \times decision domain logistic regression analysis on decision avoidance revealed the predicted interaction effect ($b = 1.05$, $SE = .53$, $\chi^2(1) = 3.93$, $p < .05$), a main effect of perceived decision style ($b = -.93$, $SE = .38$, $\chi^2(1) = 5.81$, $p = .016$), and no main effect of decision domain ($b = -.61$, $SE = .39$, $\chi^2(1) = 2.41$, $p = .12$). See figure 5.

As predicted, perceived decision style influenced preference for the focal task in the financial condition but not in the medical condition. Whereas 51.9% of participants

FIGURE 5

STUDY 5: THE EFFECT OF PERCEIVED THINKING STYLE ON TENDENCY TO ENGAGE IN FINANCIAL AND MEDICAL DECISIONS



chose to work on the financial assignment in the analytical condition, this dropped to 30.0% in the affective condition ($\chi^2(1) = 5.95, p = .018$). In contrast, 41.1% of participants chose to work on the medical decision in the analytical condition, similar to the affective condition (44.1%; $\chi^2(1) < 1, NS$).

Of note, we ran a separate study to test an alternative account related to experimental demand. We replicated the two financial decision conditions, and found that the manipulation had no effect on whether participants thought the researchers wanted them to decide in a particular way ($\chi^2(1) = .146, p = .70$). Even in those cases where participants did indicate such a general belief, the manipulation had no effect on perceptions of the specific option (i.e., financial vs. alternative assignment) that the researchers were presumably trying to favor ($\chi^2(2) = .044, p = .98$). These findings cast doubt on the possibility that demand effects were driving our results. See web appendix H for details.

Discussion

Study 5 tests our theory regarding the domain-specific role of perceived decision style in driving decision avoidance. Consistent with our conceptualization, we found that believing they tend to base their decisions on affective (vs. analytical) thinking increases people's tendency to avoid financial decisions, but has no effect on equally complex, important, and specialized decisions about medical treatment.

In addition to supporting our theory, the domain-specific nature of our effect suggests that affective thinking is distinct from heuristic or system 1 processing (see also Avnet et al. 2012; Cohen et al. 2008; Lee et al. 2015). People tend

to rely on deliberative thinking and are less likely to use heuristics for important and consequential decisions. Both financial and medical decisions are perceived as important and complex, and therefore both should be associated with deliberative (system 2) processing, and yet our results showed that perceived affective versus analytical decision style had an effect on financial decision avoidance, not medical decisions. This suggests that the effect is unlikely to reflect perceived differences in deliberative versus heuristic (or system 2 vs. system 1) processing, but rather perceived differences in the appropriateness of affective versus analytical thoughts.

GENERAL DISCUSSION

People often feel uncomfortable making financial decisions and choose to avoid or defer them, despite the clear importance of attending to their finances (Agarwal et al. 2015; Benartzi et al. 2007; Choi et al. 2011; van Rooij et al. 2011). In this research, we examine a novel account for such behaviors. Our findings suggest that people perceive financial decisions—more so than decisions in many other complex and important domains—as compatible with analytical thinking and as incompatible with feelings and emotions. Consequently, the more people perceive themselves as inclined to rely on affect in their decisions, the more they feel removed from financial decisions and show an increased tendency to avoid such decisions.

Five studies demonstrate that perceived tendency to rely on affective thinking predicts an increased tendency to avoid financial decisions. The relationship between perceived thinking style and financial decision avoidance was robust regardless of whether self-perception was measured (studies 1A and 1B) or manipulated (studies 2–5), and whether decision avoidance was operationalized in terms of self-reported tendencies and behaviors (studies 1A and 1B) or in terms of a variety of actual avoidant behaviors (studies 2–5).

Our studies provide direct process evidence in support of our theory. The effect of perceived decision style on financial decision avoidance is mediated by self-concept incongruity with financial decisions (studies 3A and 3B), and it is moderated by the accessibility of lay beliefs regarding financial decisions and the appropriateness of affective thinking for such decisions (studies 3A–4). The studies show that the effect has to do with the associations people have regarding financial decisions rather than the complexity, importance, or content of the decision itself: perceived decision style did not influence decision avoidance in other equally important and complex domains in which affect is seen as less incompatible, such as medical care (studies 1, 3B, and 5), or in financial decisions that were not labeled as such (e.g., a retirement investment decision framed as a decision concerning lifestyle in retirement; study 4).

Across studies, we present consistent evidence that casts doubt on multiple alternative accounts, including perceived expertise, decision confidence, demand effects, subjective and objective financial knowledge, self-efficacy, and preference for numerical information.

Boundary Conditions: Are All Financial Decisions Equal?

The current research focuses on core financial decisions such as investments, saving, and borrowing, which have also been the focus of prior research on consumer disengagement from financial decisions (Agarwal et al. 2015; Benartzi et al. 2007; Choi et al. 2011; Dholakia et al. 2016; Hadar et al. 2013; Soll et al. 2013; Spiller 2011; van Rooij et al. 2011). Our findings may not apply to certain types of financial decisions that are associated with salient affective considerations and attributes. Buying a home, for example, typically involves a major financial transaction and can therefore be defined as a financial decision (Lynch et al. 2010), but such a decision also includes highly salient affective components related to aesthetic preferences, family needs, and lifestyle considerations. Consequently, the effect of perceived affective thinking on decision avoidance is likely to be attenuated in such cases. Future research may investigate the effect of thinking-style perceptions on decision avoidance (or engagement) in these and other types of financial decisions.

Theoretical Implications

The current research makes several important theoretical contributions. First, prior work on affective and analytical thinking has suggested that experiencing congruency between the type of processing that a particular task requires and the type of thinking that is actually used in that situation increases perceived task performance and satisfaction (Novak and Hoffman 2009). Our findings extend this prior work by suggesting that people also assess the extent to which their individual processing tendencies fit anticipated tasks in specific domains. Furthermore, people may rely on these prospective assessments as guides to behavior in those situations.

Second, our results demonstrate a novel consequence of thinking-style (mis)fit: self-concept (in)congruity with the decision domain. The findings suggest that perceived self-concept incongruity mediates the effect of perceived thinking style on decision avoidance.

Third, our research underscores a characteristic of financial decisions that makes them stand out among other important, complex, and consequential types of decisions. Prior work on financial decision making has often examined phenomena that, albeit important, are not characteristic of only financial decisions. Low subjective knowledge (Hadar et al. 2013), decision complexity (Iyengar and

Kamenica 2010), and partners' tendency to develop divergent expertise (Ward and Lynch 2015), for example, all have important influence on financial decision avoidance, but are also likely to influence decisions in other areas. In contrast, the extremity with which financial decisions are associated with only one mode of thinking is quite exceptional among dozens of other decision domains (pilot study). This underscores one important conceptual reason financial decisions may be worthy of special examination.

One important question for future research is whether affective and analytical thinking (mis)fit perceptions have symmetrical effects on decision avoidance. Our pilot study reveals a few decision domains (e.g., choosing songs) where affective thinking is perceived as highly appropriate whereas analytical thinking is seen as inappropriate. Whether these perceptions translate into higher avoidance or disengagement rates when people see themselves as analytical thinkers remains an open question, however. It is possible that analytical thinking, albeit unhelpful in certain domains, is nevertheless not perceived as disruptive or harmful to the same degree as is affective thinking in financial decisions.

The current research focuses on differences along the affective versus analytical continuum, but lay beliefs regarding decision domains may vary along other dimensions, and experiencing individual (mis)fit along these dimensions may influence decision avoidance. For example, behaviors (including decision making) in the legal domain may be perceived as particularly adversarial (as opposed to cooperative), and perceiving a mismatch between this general domain quality and individual self-perceptions (e.g., of being a soft, cooperative person) may influence people's willingness to engage and make decisions in that domain.

Practical Implications

Beyond their theoretical significance, our findings also have important practical implications for the communication of financial products. Our findings suggest that the manner in which financial decisions are framed may influence consumers' tendency to engage in them (study 4). Framing financial decisions in terms of life outcomes (e.g., lifestyle goals in retirement) instead of as financial investment decisions, for example, may reduce the tendency to avoid or delay such decisions, thereby benefiting consumers' long-term financial well-being. On the other hand, using emotional appeals in financial product advertisements may potentially backfire by making emotional decision making salient. For example, advertising an investment banking product, framed as such, while using affect-evoking images may backfire to the extent that such appeals lead consumers to feel emotional and therefore less compatible with the investment context, thereby resulting in decision avoidance. Further research may

examine the efficacy of such frames in a field setting or using secondary data.

An important takeaway from the current research is that financial decision avoidance may be influenced by rather subtle and private states, such as the extent to which people feel emotional versus analytical in a particular moment. Whereas educating consumers to be more financially savvy (Lusardi and Mitchell 2007), introducing useful defaults (Thaler and Sunstein 2008), and simplifying decisions by reducing the number of investment options (Iyengar and Kamenica 2010) may not always be possible or easy to implement, the current investigation suggests that financial decision avoidance may be partly reduced by interventions that are much simpler to implement.

DATA COLLECTION INFORMATION

The first author collected and analyzed the data under the second author's supervision. Studies 1A, 3A, 3B, 4, and 5, as well as a pilot study, were conducted online using Amazon MTurk panelists. The pilot study was run in fall 2016, study 1A in spring 2016, study 3A in winter 2016, study 3B in fall 2017, study 4 in fall 2015, and study 5 in summer 2016. Study 2 was run by research assistants at the University of Florida Behavior Lab in winter 2016. Study 1B was run by research assistants at a major North American airport in fall 2017.

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