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ORIGINAL PAPER

Mindfulness Reduces Avaricious Monetary Attitudes and Enhances Ethical Consumer Beliefs: Mindfulness Training, Timing, and Practicing Matter

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Abstract
Mindfulness—the awareness of the present moment and experiences in daily life—contributes to genuine intrinsic and social-oriented values and curbs materialistic and hedonistic values. In the context of materialism, money is power. Avaricious individuals take risks and are likely to engage in dishonesty. Very little research has investigated the effects of mindfulness in reducing the avaricious monetary attitudes and enhancing ethical consumer beliefs. In this study, we theorize that mindfulness improves consumer ethics directly and indirectly by lowering avaricious monetary attitudes. To test our theory, we collected data from 523 individuals with the Mindfulness-Based Stress Reduction (MBSR) training and 307 individuals without MBSR. The results of our whole sample ($N = 830$) support our theory. Three multiple-group confirmatory factor analyses (MGCFAs) reveal intriguing discoveries. First, with MBSR training, mindfulness excites consumer ethical beliefs directly and indirectly. Without training, trait mindfulness fails to reduce monetary attitudes—mindfulness training matters. Second, the power of MBSR training holds for participants completing the training within 1 year, but wears off after 1 year—the duration after training matters. Finally, after 1 year, the training retains its strength for those who practice mindfulness, but weakens its power for those who do not—practice matters. We shed light on mindfulness, monetary wisdom, and consumer ethics, in particular, and business ethics, in general.

Keywords Mindfulness/state/trait · Buddhism/spiritual/sacred/religious values · Mindfulness-based stress reduction (MBSR) training/mindfulness-based interventions (MBIs) · Consumer ethics · Ethical-unethical beliefs/dishonesty/deceptive practices · Retail/marketing · Decision-making · Monetary intelligence/wisdom · Avaricious monetary aspiration/the love of money attitude/greed/meaning of money · Materialism/secular values

Introduction

Economic development and human prosperity around the world have promoted *secular* values, materialistic consumption, monetary aspirations, and unethical consumer decision-making (Kasser 2002, 2016; Schwartz 1992). To reduce unethical consumer beliefs (Muncy and Vitell 1992), researchers have focused on individuals' age, gender, or education (Lu and Lu 2010; Rawwas and Singhapakdi 1998; Robertson et al. 2012), avaricious monetary attitudes (Tang and Chiu 2003; Tang et al. 2018b, c; Vitell et al. 2007), emotional intelligence (Gentina et al. 2018c; Mayer et al. 2004), Machiavellianism (Rallapalli et al. 1994; Tang and Chen 2008), materialism (Tang and Liu 2012; Tang et al. 2014), and religiosity (Chen and Tang 2013; Forsyth 1992; Tang 2012; Tang and Tang 2010). In a critical analysis of this research stream, Chowdhury (2019) asserts that scholars

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have explored these antecedents of consumer ethical beliefs in a seemingly ad hoc fashion, without a solid grounding in theory. Very little research has explored individuals' mindfulness in reducing consumer ethics. This study fills the void.

For this study, we propose individual mindfulness as an antecedent to consumer ethics, using a theoretical mindfulness framework. Mindfulness, defined as receptive attention to and awareness of present events and experience (Brown et al. 2007, p. 212), is closely associated with ethical beliefs (Dhandra and Park 2018), ethical behaviors (Good et al. 2016; Kalafatoğlu and Turgut 2017), and sustainable consumption (Fischer et al. 2017). In addition to conceptual considerations of its relationship with business ethics (La Forge 2000; Marques 2012), a few studies offer empirical tests of the interface between mindfulness and ethics-related constructs, such as pro-environmental behavior (Barbaro and Pickett 2016), ethical behavior (e.g., honesty, empathy, helpfulness, contrition; Kalafatoğlu and Turgut 2017), lenient ethical judgments (Dhandra and Park 2018), moral reasoning, or ethical decision-making (Shapiro et al. 2012). Yet little research connects mindfulness with the critical construct of individual perceptions of questionable consumer practices, or consumer ethics (Dandhra and Park 2018; Fisher et al. 2017).

We apply a mindfulness framework to comprehend consumer ethics. The love of money, or an avaricious monetary attitude, undermines ethical beliefs. Research suggests that "money motivates people to perform unethically," and "money is a major cause of people's unethical and evil acts" (Lemrová et al. 2014, p. 334; Tang and Chiu 2003). Such attitudes lead to both dishonesty (Chen and Tang 2013; Tang and Liu 2012) and unethical behavioral intentions (Gentina et al. 2018b; Tang and Chen 2008; Tang and Liu 2012). But mindfulness can curb impulsive buying tendencies (Park and Dhandra 2017). From this view, we anticipate that avaricious monetary attitudes might mediate the relationship between mindfulness and consumer ethical beliefs.

With a structural equation (SEM) model, we test whether a mindfulness trait enhances ethical beliefs directly or indirectly, by reducing avaricious monetary attitudes. We also explore the extent to which mindfulness-based stress reduction (MBSR) interventions can augment the effects of trait mindfulness. Accordingly, we simultaneously explore a direct path (Mindfulness → Consumer Ethics; Path 1) and an indirect path (Mindfulness → Monetary Attitudes → Consumer Ethics; Paths 2 and 3, Fig. 1). To do so, we measure three constructs—trait mindfulness (MAAS; Brown and Ryan 2003), avaricious monetary attitudes (Tang et al. 2018c), and consumer ethical beliefs (reverse-scored scale; Muncy and Vitell 1992)—in a large sample of 830 participants, such that one sample had received MBSR training in the past 2 years ($n = 523$) and the other had no MBSR training ($n = 307$).

The results affirm that overall, trait mindfulness enhances consumer ethical beliefs directly and indirectly by diminishing avaricious monetary attitudes. Specifically, for the group with MBSR training, our findings support the direct and indirect paths in the theoretical model. For the group without MBSR training, the direct path prevails, but the indirect path fails to reach significance (Path 2). We also can classify the training group participants into two mutually exclusive groups (MBSR ≤ 1 year vs. 1 year < MBSR < 2 years). Within 1 year of the training, trait mindfulness produces

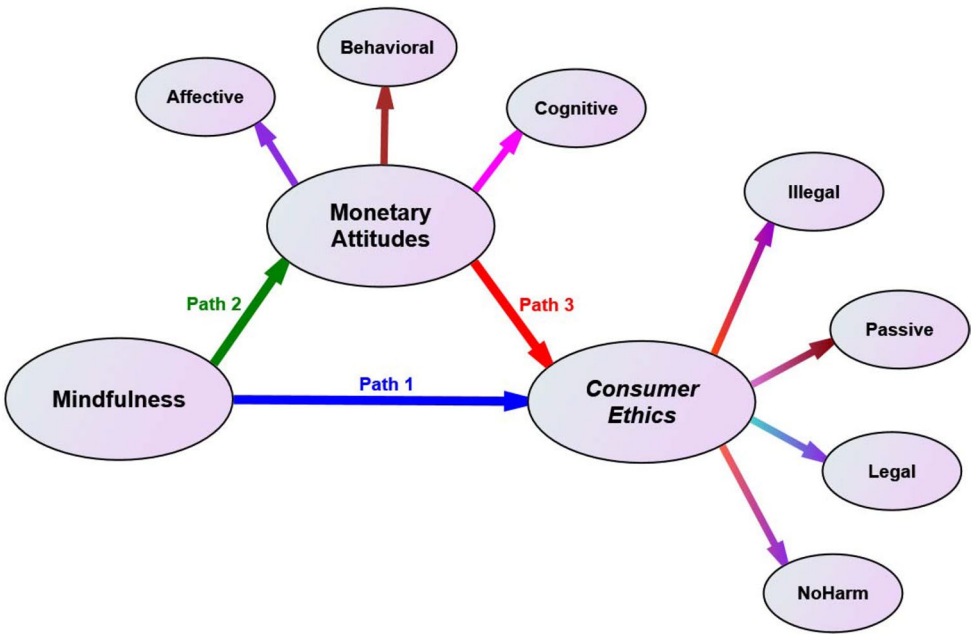

Fig. 1 Our theoretical model

positive consumer ethics, directly and indirectly. However, the effects of MBSR training (Path 3) wear off after 1 year. For people who continue to practice mindfulness and have received MBSR training within the past 2 years, trait mindfulness continues to enhance ethical beliefs, directly and indirectly. If they do not practice mindfulness, trait mindfulness fails to promote ethical beliefs. Thus, our findings reveal the meaningful influences of MBSR training, post-training duration, and continuous practice. By acknowledging that mindfulness offers a promising means to combat avaricious monetary attitudes and unethical behaviors in business ethics contexts, we shed new light on theoretical issues pertaining to mindfulness, monetary wisdom, consumer ethical beliefs, and business ethics in general. This study also offers practical implications for executives and managers, particularly in the retail industry.

Theory and Hypotheses

Figure 1 presents our overarching theoretical model with three significant constructs. We treat avaricious monetary attitudes as a mediator of the relationship between trait mindfulness and consumer ethical beliefs and explore both the direct (Path 1) and indirect paths (Paths 2 and 3) simultaneously. We test MBSR training, duration after the training, and practice of mindfulness as three separate moderators using multi-group confirmatory factor analyses (MGCFAs). We theorize that trait mindfulness will enhance consumer ethical beliefs directly and indirectly by lowering avaricious monetary attitudes. Further, individuals with MBSR training, a short duration (within 1 year) after the training, and continuous mindfulness practices provide more robust support of our theoretical model than their counterparts, respectively. We present simplified terms in Fig. 1 and introduce our constructs below.

Mindfulness

Anchored in the Eastern spiritual traditions (Brown and Ryan 2003), Buddhism has cultivated the culture of mindfulness over two millennia (Brown et al. 2007). Recent research revealed increasing interests in mindfulness, first in clinical research (e.g., Bishop et al. 2004; Shapiro et al. 2011), then in psychology (e.g., Giluk 2009; Niemiec et al. 2010), and more recently in management sciences (e.g., Dane and Brummel 2014; Good et al. 2016).

Researchers define mindfulness as a state of being attentive to and non-judgmentally aware of momentary experiences (Bishop et al. 2004; Brown et al. 2007). Despite its ancient roots in contemplative traditions, scholars have investigated mindfulness in more secular instances as "a universally applicable practice, and a natural human capacity" (Shapiro et al. 2012, p. 504) than a sacred sense. Management scholars consider mindfulness to be "a state of consciousness." They pay attention to "the present moment phenomena occurring both internally and externally" (Dane 2011, p. 1000). It enables people to have a wide attentional breadth (Dane and Brummel 2014).

Researchers have conceptualized mindfulness as both a *state* and a *trait* (Baer 2003; Baer et al. 2006; Bishop et al. 2004; Brown and Ryan 2003). First, *trait* mindfulness is a "person-level" disposition (Brown and Ryan 2003, p. 837), that indicates an individual's tendency to be mindful in daily life (Baer et al. 2006). The dispositional "differences in mindfulness" (Allen and Kiburz 2012, p. 371) distinguish one person from another. In contrast, *state* mindfulness is a within-person variable, showing "momentary-level mindfulness" that fluctuates over time (Brown and Ryan 2003, p. 836). People can be more or less mindful at one point or another (Kabat-Zinn 2005).

Mindfulness-based interventions (MBIs), e.g., MBSR (Kabat-Zinn 1982) or mindfulness-based cognitive therapy (Segal et al. 2002), help individuals develop mindfulness with practice (Bishop et al. 2004). In this study, we investigate mindfulness not only as a trait but also as a variable of intervention—MBSR.

Mindfulness and Consumer Ethics

The philosophy of mindfulness is rooted in Buddhism. Buddhist mindfulness focuses on present moment events, actions, and ethical principles. Hence, the practice of mindfulness links closely to ethics and moral judgment (Kang and Whittingham 2010). Mindfulness favors the awareness of morally relevant internal and external cues and fosters ethical behavior (Sevinc and Lazar 2019). Empirically, scholars have tested the interface between mindfulness and ethics-related constructs in organizational contexts, supporting positive relationships between mindfulness and ethics. "Appendix 1: Mindfulness & ethics—empirical studies" section briefly summarizes significant findings in the literature.

Generally, mindful individuals hold ethical consumer beliefs, follow moral reasoning (Pandey et al. 2018), and make compassionate, ethical judgments (Dhandra and Park 2018). The mindfulness theory explains that mindfulness is a state of mind that is non-judgmental, in the sense that a mindful individual is not entrapped in the past or future, and is not judging or dismissing what is happening in the present moment (Kabat-Zinn 1994). Studies uncover the positive relationship between trait mindfulness and ecologically responsible behaviors (Barbaro and Pickett 2016; Brown and Kasser 2005). This relationship is explained by the mindfulness mechanism that consists of intentionally drawing one's

attention and awareness on specific experiences, leading to increased behavioral regulation (Langer and Modoveanu 2000). Through expertise, mindfulness increases one's connectedness to nature and fosters pro-environmental behavior.

Further, trait mindfulness fosters ethical decision-making (Ruedy and Schweitzer 2010; Shapiro et al. 2012). Indeed, researchers have theorized mindfulness as one's awareness and attention of the self, others, and the outside environment (Brown and Ryan 2003). Last, trait mindfulness has significant relationships with ethical behaviors (Kalafatoğlu and Turgut 2017), suggesting that mindfulness curtails unethical behaviors (Ruedy and Schweitzer 2010). Mindful leaders create higher-quality relations and ultimately promote employee interpersonal justice perceptions (Reb et al. 2018). Elaborating on these prior studies, we posit that trait mindfulness enhances people's ethical beliefs directly (Path 1: Mindfulness → Consumer Ethics).

Hypothesis 1 Trait mindfulness is positively related to consumer ethical beliefs.

Avaricious Monetary Attitudes

We argue that monetary attitudes mediate the relationship between trait mindfulness and consumer ethics. Following the ABC (affective–behavioral–cognitive) model of attitudes, Tang (1992) developed one of the most well-developed and systematically used money attitude measures in the literature (Mitchell and Mickel 1999; Tang and Chen 2008). It is a multidimensional individual difference variable. Researchers have substantiated this money-related attitudinal construct in more than 45 countries on six continents, revealing both light and dark sides. This measurement has three sub-constructs: affective motive (Factors Rich, Motivator, and Important/Good), stewardship behavior (Factors Make, Budget, and Donate/Give), and monetary cognition (Factors Happiness, Respect, Achievement, and Power) (Tang et al. 2018c).

The affective motive excites one's emotions. Most people want to be Rich.[1] Factor Rich predicts the amount of cheating (Chen et al. 2014). Further, money is a crucial Motivator. Among incentives for improving performance, nothing comes close to money (Locke et al. 1980). Factor Motivator predicts the percentage of cheating (Chen et al. 2014). Money is Important-Good (Mitchell and Mickel 1999; Tang 1992). For stewardship behavior, individuals Make money. Frugal people Budget their money carefully. People Donate their money to charities. Cognitively, money represents several vital meanings. Money brings Happiness to many people. Money signals ones' Achievement and Success. People with money gain Respect from others (Tang 1992). Money is Power in the context of materialism (Lemrová et al. 2014).

On the dark side, avaricious monetary attitudes predict not only behavioral intentions but also cheating behaviors (Chen et al. 2014), poor course grades in a business class (Tang 2016), investors' longitudinal low stock happiness (Tang et al. 2018a), and voluntary turnover 18 months later (Tang et al. 2000). Scholars have empirically supported the notion that the love of money, not money, is the root of all evils (Tang and Chiu 2003; Tang et al. 2018c)[2] .

On the bright side, managers in 32 countries with low affective motive and high stewardship behavior enjoy high pay satisfaction and job satisfaction (Tang et al. 2018c). Besides universal findings (Tang et al. 2018b, c), scholars have employed this construct in the French context (Gentina and Tang 2018; Gentina et al. 2018b). In this study, we selected the avaricious monetary attitudes scale (Tang et al. 2018c) and applied this construct to participants in France.

What is the relationship between monetary attitudes and Monetary Intelligence? The theory of planned behavior (TPB) posits: Attitude predicts behavioral intentions, which, in turn, predicts objective behaviors. Following TPB, avaricious monetary attitudes, an attitudinal measure, predict money-related intentions and actions. Monetary intelligence (MI) provides a nomological network of relations between monetary attitudes and other constructs. Individuals select their monetary attitudes as part of their cognitive executive functions. They frame critical concerns in the proximal (immediate) and distal (omnibus) contexts to maximize expected utilities and ultimate happiness (Tang 2020a, b; Tang and Sutarso 2013; Tang et al. 2018c). In summary, monetary intelligence asserts that decision-makers not only incorporate their task-related analytical and financial network of the cognitive processes but also frame their critical emotional and empathic concerns in the immediate and omnibus contexts to maximize expected positive outcomes and psychological well-being (the bright side) and minimize negative consequences (the dark side) (cf. Mayer et al. 2004). Recently, scholars have explored monetary intelligence and treated temptation (Chen et al. 2014; Tang and Sutarso 2013) and parents and peers influence (Gentina et al. 2018b) as antecedents and dishonesty and consumer ethics as the consequences, respectively. In the present study, we treat mindfulness as an antecedent and consumer ethics as a consequence in our theoretical model, expanding our understanding of monetary intelligence.

[1] We use a capitalized word Rich to represent Factor Rich. We apply this principle to all factors of this construct.

[2] Those who want to be rich are falling into temptation. For the love of money is the root of all evils (1 Timothy 6: 9–10).

Mindfulness and Monetary Attitudes

Mindfulness cultivates compassion (Condon et al. 2013), openness, generosity, and kindness, contributes to intrinsic and other-oriented values, and curbs materialistic and hedonistic values (Burroughs and Rindfleisch 2002). Mindfulness also relates to basic psychological needs, including autonomy, relatedness, and competence, and negatively correlates with impulsiveness (Brown and Ryan 2003). Thus, mindfulness promotes healthy, rational behavior, and reduces suffering derived from cravings (Papies et al. 2015). Individuals with high mindfulness are less materialistic than those with low mindfulness (Bishop et al. 2004). Wang et al. (2017) asserted that mindful individuals are less likely to immerse in "money and attractive cues" (p. 132). In this study, we further expanded their arguments and asserted that mindfulness leads to low avaricious monetary attitudes, creating a negative path (Path 2: Mindfulness → Monetary Attitudes).

Hypothesis 2 Trait mindfulness is negatively related to avaricious monetary attitudes.

Monetary Attitudes and Consumer Ethics

Money is associated with achievement (success), status (respect), freedom, and power (Tang 1992). On the dark side, people who value money as a sign of achievement have low satisfaction with pay and life (Srivastava et al. 2001). Those who use their money to show off, get power, or compare themselves to others, experience low subjective well-being. The mere presence of money triggers envy toward the rich and activates feelings of self-sufficiency (Vohs et al. 2006). It is not the money, but the motive that leads to low happiness (Srivastava et al. 2001). Avaricious monetary attitudes lead to high dishonesty (Chen and Tang 2013; Tang and Liu 2012) and predict unethical intentions in multiple-panel studies (Tang and Chen 2008; Tang and Liu 2012). Those who do not manage their money carefully have harmful desires that plunge them into destruction.

On the light side, good stewards enjoy high pay and life satisfaction (Tang et al. 2018c). Following Wang et al.'s (2017) arguments, mindfulness, indirectly, encourages ethical consumer beliefs. We propose a negative path (Path 3: Monetary Attitudes → Consumer Ethics). By combining the two negative paths, we derive a positive indirect path. Trait mindfulness enhances consumer ethical beliefs by reducing avaricious monetary attitudes (Paths 2 and 3: Mindfulness → Monetary Attitudes → Consumer Ethics).

Hypothesis 3 Avaricious monetary attitudes are negatively related to consumer ethical beliefs.

Hypothesis 4 Avaricious monetary attitudes mediate the relationship between trait mindfulness and consumer ethical beliefs.

Mindfulness-Based Stress Reduction (MBSR) Training as a Moderator

Mindfulness practices aim at enhancing awareness of thoughts, feelings, sensations, and behaviors (Shapiro et al. 2012). Many meditation practices (such as the Buddhist monastic tradition) focus on training in moral reasoning and ethical decision-making behavior. Consistently, mindfulness-based interventions (MBIs) promote moral reasoning (Pandey et al. 2018; Shapiro et al. 2012) and ethical decision-making (Ruedy and Schweitzer 2010; Shapiro et al. 2012). In their systematic review and meta-analysis, Donald et al. (2019) reported a strong link between mindfulness interventions and pro-social behaviors. Following mindfulness theory, mindfulness training enhances sustained attention, thus increasing the likelihood that a mindful individual observes others' needs and responds to them (Brown and Ryan 2003; Condon 2017). Similarly, Fischer et al. (2017) systematically reviewed the literature and evidenced the relationships between mindfulness interventions and sustainable consumption. They identified four main facets from mindfulness theory that explain why mindfulness interventions promote changes in consumption behaviors. They are the disruption of routines (diminished unconscious, non-sustainable consumption choices), congruence (reduced the attitude-behavior gap), non-material values, and well-being (clarified values and fostered non-material values in people's lives), and pro-social behavior (increased compassion).

While these meta-analyses have taken stock of empirical findings related to either trait mindfulness, or mindfulness interventions, they paid little attention to the interaction between trait mindfulness and the intervention itself. Yet, pioneering research has started establishing this linkage (e.g., Shapiro et al. 2012). To fill the gap, we treat the effect of mindfulness training (MBSR) as a moderator of the direct and indirect relationships in our model. We compare individuals with one of the most rigorous mindfulness interventions (the Mindfulness-Based Stress Reduction training) with their counterparts without such training.

The MBSR program (Kabat-Zinn 1982) is one of the most common MBIs investigated in management (Chaskalson and Hadley 2015). It has a rigorous protocol and tentative beneficial effects (Brown and Ryan 2003). It consists of weekly classes spread over 2 months and a silent retreat aimed at the cultivation of a mindful attitude. MBSR sessions involve many activities, such as guided instruction in mindfulness, four types of formal meditation practices (sitting meditation, walking meditation, corporal scan, and mindful yoga),

learning elements to cope with stress, and exercises of mindfulness or full awareness. We hypothesize the moderation effect for the direct path (Path 1) as follows:

Hypothesis 5a The positive direct relationship between trait mindfulness and consumer ethical beliefs is more robust for those with MBSR than for those without MBSR.

Against the ills of materialism (e.g., higher consumption and associated debts, lower quality of interpersonal relationships, lower well-being, and non-ecologically responsible behaviors), scholars have proposed interventions aiming at encouraging intrinsic/self-transcendent values (Kasser 2016). For instance, immersing oneself in nature (Weinstein et al. 2009) contributes to reduced materialistic values. Wang et al. (2017) encouraged future research to assess the benefits of MBIs to mitigate the effects of materialism (avaricious monetary attitudes). We argue that for participants who completed their MBSR training, a high level of trait mindfulness leads to ethical beliefs indirectly through the reduction of monetary attitudes. However, without formal MBSR training, trait mindfulness does not lead to a lower level of monetary attitudes. We propose that MBSR moderates the indirect path (Paths 2 and 3: Mindfulness → Monetary Attitudes → Consumer Ethics).

Hypothesis 5b The positive indirect path is more durable for those with MBSR training than those without MBSR.

Post-Training Duration and Mindfulness Practice

Systematic reviews and meta-analysis on workplace mindfulness interventions suggest that the effects of such training are overall beneficial to reducing stress and enhancing mental health, well-being, and work performance outcomes. However, researchers rarely reported follow-up data (Bartlett et al. 2019; Eby et al. 2017; Lomas et al. 2019). When researchers provided follow-up data, there was a considerable variation in the time lag used across studies. Some studies investigated the immediate effect and measured their dependent variables right after the training program (e.g., Ditto et al. 2006). Others conducted follow-up assessments at 2 months (Shapiro et al. 2012), 3 months (Spence and Cavanagh 2019), or 2 and 12 months after the training (Shapiro et al. 2011). Bartlett and colleagues suggest that scholars must provide new evidence by extending the follow-ups to 1 or 2 years from baseline. Eby and colleagues call for research to question the sustainability of training effects.

Indeed, research on the effect of time lag on intervention effectiveness is scarce. In a meta-analysis, Slemp et al. (2019) reported that positive effects of the interventions did not diminish as a function of follow-up time lag. This could suggest that the long-lasting effect of such interventions existed. It is also possible that effects existed for reasons not reported in the studies, such as regular contemplative practice or other therapy variants after the conclusion of intervention training. Slemp et al. further stated that "it will be important for future studies to report information" and establish these various effects (p. 241). In this study, we answer these specific calls (Eby et al. 2017; Slemp et al. 2019) and investigate these issues.

First, we investigate the effect of time (short vs. long) on outcomes across two groups of participants. One group ended their formal MBSR training less than a year (short-term group, MBSR training ≤ 1 year), and the other ended their program more than 1 year ago, but less than 2 years (long-term group, 1 year < MBSR training < 2 years). In this study, we label these two groups as "short-term" and "long-term" groups, respectively. Second, in the long-term group, we explore the effect of practice on enhancing ethical beliefs using our theoretical model. It stands to reason that after MBSR training, individuals who *practice* mindfulness fare better than those who do not. However, due to the lack of robust empirical evidence in helping us make predictions, we explore the effects of post-training duration and practice on an exploratory basis.

Hypothesis 6a The positive direct path between trait mindfulness and consumer ethical beliefs (Path 1) is more robust for the short-term group than for the long-term group.

Hypothesis 6b The positive indirect path (Paths 2 and 3) is stronger for the short-term group than for the long-term group.

Hypothesis 7 For the long-term group, the direct and indirect paths are stronger for MBSR participants who practice mindfulness than those who cease to practice.

Method

Participants

Research suggests that people in the same region or geographic location tend to share the same characteristics (Talhelm et al. 2014). However, people in different communities vary in their life satisfaction and personality patterns (Oishi 2015). In a longitudinal study, city and country investors displayed different stock happiness (Tang et al. 2019). We offered the following carefully considered strategies in our data collection.

Table 1 Mean, standard deviation, correlations, and reliability of major variables

	Variable	*M*	SD	1	2	3	4	5
1	Gender (% Male)	0.30	0.45	X				
2	Age	41.71	0.94	0.08*	X			
3	MAAS	3.41	0.62	− 0.05	0.16 **	X		
4	Avaricious monetary attitudes	2.69	0.59	− 0.09*	− 0.14**	− 0.19**	X	
5	Consumer Ethics	4.35	0.66	0.03	0.25**	0.27**	− 0.15**	X
Reliability (Cronbach alpha)						0.85	0.74	0.85

$N = 830$

$^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Two Groups

Although we did not assign participants to our two groups (with MBSR training vs. without MBSR training) randomly, we collected our overall sample of 830 participants in the same region: Northern Region of France. The Lille Metropolitan area, precisely, is the fourth largest urban area in France with more than 1.1 million inhabitants. This region is about 225.4 km/140.9 miles from Paris—the capital of France. For the group *with MBSR training*, we collaborated with a mindfulness training institute located in Lille. MBSR training takes place with weekly face-to-face meetings in the evening for 8 weeks. Thus, most MBSR trainees lived in Lille or nearby neighborhoods. For the group *without MBSR training*, two of the authors contacted their business schools in Lille, asked the career centers to identify professional contacts in the local area, and recruited individuals who were working full time to ensure the equivalence of these two samples.

With MBSR

The lead trainer and his four colleagues are certified MBSR teachers by the Center for Mindfulness (CFM) of the University of Massachusetts. All participants attended the standard 8-week MBSR program. Trainers deliver MBSR programs to either individuals (private initiatives, with individuals paying for their training) or companies (corporate initiatives, with companies paying for the training). In the present study, we focused on the former—individuals who paid for the MBSR training program, working in various companies.

We sent the online survey to 980 participants who had completed MRSR training within the last 2 years. We collected data for 6 months (January to June 2018) and received 580 completed surveys. We retained 523 participants (response rate = 53.37%) after deleting 57 dues to missing data. Participants provided their consent, voluntarily and anonymously completed the study without financial reward, contributing to reducing social desirability and "honest" answers (Joinson 1999). Table 1 shows the means, standard deviations, Cronbach's alphas, and correlations of all variables. Table 2 shows a comparison of participants' demographic variables across two groups (with and without MBSR training).

Post-MBSR Training Duration ("Short-Term" vs. "Long-Term")

We separated all MBSR participants into two groups. One group ($n = 262$) had ended their MBSR training less than a year, whereas the other ($n = 261$) had completed their MBSR training more than a year and less than 2 years. We treat the post-training duration (short vs. long) as a moderator.

Table 2 A comparison of participants' demographic variables across two groups (with and without MBSR training)

	With MBSR group	Without MBSR group
Gender	64.0% of women	64.2% of women
Age	$M = 42$; SD = 10.28	$M = 41$; SD = 9.25
Marital status: married	68.1%	62.6%
Education	5.8%: high school 26.5%: undergraduate or bachelor's (BA) degree 67.7%: completed graduate studies/degrees	2.2%: high school 28.7%: undergraduate or bachelor's (BA) degree 69.1%: completed graduate studies/degrees
Profession	64.5%: high-level professionals and managers, 19.4%: heads of their firms, 9.4%: middle-level managers/professionals 6.7%: regular employees	63.2%: high-level professionals and managers, 18.2%: heads of their firms, 11.2%: middle-level managers/professionals 7.4%: regular employees

Without MBSR

We collected data from individuals who had no MBSR training ($n = 307$). We used purposeful sampling and contacted working professionals from the professional databases of two premier business schools in Lille, France. We sent an online survey to 810 professionals and obtained 307 usable questionnaires (response rate = 37.90%). Similar to the other group, they participated voluntarily and without compensation. These participants with and without MBSR training shared related demographic variables, domicile in the same areas/neighborhoods, and comparable employment-economic and financial backgrounds (see our comparisons in Table 2).

Measurements

Researchers have applied these measures in the American and French contexts. Our bilingual focus group translated the original English questionnaires into French, using translation and back-translation procedures to ensure conceptual equivalence and translation accuracy. "Appendix 2: Items and Constructs of our Major Measures" lists all items and constructs. We measured our variables—trait mindfulness, monetary attitudes, and consumer ethics—at the individual level.[3]

Trait Mindfulness

We measure trait mindfulness using the 15-item, 6-point Likert-type MAAS developed by Brown and Ryan (2003) in the U.S. and validated in France by Jermann et al. (2009). We applied a 6-point Likert-type scale employing *almost always* (1) to *almost never* (6) as scale anchors. The MAAS scale is one of the most frequently used instruments (Choi and Leroy 2015). Researchers have used it across a wide range of settings and populations (Brown and Ryan 2003; Carlson and Brown 2005), suggesting strong psychometric properties (Choi and Leroy 2015; Ruiz et al. 2016). A sample item is: "I find it difficult to stay focused on what's happening in the present." A high score reflects a high level of dispositional mindfulness (Brown and Ryan 2003). The Cronbach's alpha was 0.85.

Monetary Attitudes

We applied a 10-item, 3-factor monetary attitudes scale (Tang et al. 2018b). We used a 5-point Likert-type scale with *strongly disagree* (1), *neutral* (3), and *strongly agree* (5) as scale anchors. Gentina et al. (2018b) had validated the monetary attitude scale in France. The Cronbach's alpha for the affective, behavioral, cognitive components, and the whole scale was 0.75, 0.71, 0.72, and 0.74, respectively.

Consumer Ethics

The 20-item consumer ethics scale has four dimensions: (1) actively benefiting from illegal activities, (2) passively benefiting at the expense of the seller, (3) actively benefiting from deceptive practices (questionable but legal activities), and (4) experiencing no harm, no foul activities (Muncy and Vitell 1992; Vitell and Muncy 2005). Gentina et al. (2018a, b) have validated this measurement in France. We followed suggestions and selected a modified 11-item, 4-sub-construct scale.[4] We applied a 5-point Likert-type scale, ranging from *strongly believe that it is wrong* (1) to *strongly believe that it is not wrong* (5) as scale anchors. We reverse coded. A high score indicated a high level of ethical belief. We applied different scale anchors to avoid the common method variance (CMV) bias (Podsakoff et al. 2003).

Results

Table 1 shows that trait mindfulness was positively related to ethical consumer belief, but negatively associated with avaricious monetary attitudes. The relationship between avaricious monetary attitudes and consumer ethics was negative. These results provided preliminary support for our theoretical model.

Two MANOVAs

Results of a multivariate analysis of variance (MANOVA) showed no significant differences in the demographic variables (i.e., age, gender, education, marital status, or professional work status) between those with the MBSR training and those without the MBSR training (F (4, 816) = 1.96; $p < 0.09$; Wilks' Lambda = 0.99; effect size (partial eta squared) = 0.01). Univariate analyses of variance (ANOVAs) revealed no significant differences in age ($F = 1.37$; $p = 0.24$), gender ($F = 0.47$; $p = 0.48$), education ($F = 1.82$; $p = 0.17$), marital status ($F = 1.88$; $p = 0.09$), or professional work

[3] We collected data from individuals who underwent MBSR training on their own initiatives, outside of their professional contexts. Moreover, prior studies did not show differences in the level of mindfulness, depending on the business sectors. Therefore, we did not collect data on participants' industry or firm.

[4] Researchers eliminated four items and rephrased three items, making the revised scale accessible to the French population.

status ($F = 1.37$; $p = 0.24$). A second MANOVA showed significant differences in mindfulness, monetary attitudes, and consumer ethics between the two groups of participants (F (3, 826) = 51,13; $p < 0.001$; Wilks' Lambda = 0.84; effect size = 0.15). Further, univariate ANOVAs revealed significant differences in mindfulness (with MBSR = 4.53 vs. without MBSR = 3.21; F (1, 830) = 54.98 $p < 0.001$), monetary attitude (2.54 vs. 2.96; F (1, 830) = 110.49, $p < 0.001$), and consumer ethical beliefs (4.44 vs. 3.23; F (1, 830) = 20.97, $p < 0.001$).

MANCOVA

Due to these differences, we conducted additional analyses using a multivariate analysis of covariance (MANCOVA). After controlling for participants' demographic variables (age, gender, education, marital status, professional work status), our MANCOVA findings (Pillai's Trace = 0.005; Wilks' Lambda = 0.995; F (3, 799) = 1.411, $p = 0.24$, partial eta squared = 0.005, and observed power = 0.38) suggested: The differences in mindfulness, monetary attitudes, and consumer ethical beliefs between the two groups were non-significant. Further tests of between-subjects effects showed non-significant findings for mindfulness-MAAS ($F = 0.47$, $p = 0.49$, partial eta squared = 0.001, and observed power = 0.10), for monetary attitudes ($F = 1.59$, $p = 0.21$, partial eta squared = 0.002, and observed power = 0.24), and for consumer ethical beliefs ($F = 2.02$, $p = 0.15$; partial eta squared = 0.003, and observed power = 0.27). Please note that after controlling for all demographic variables in our MANCOVA, our new estimated marginal mean differences (adjusted means for MAAS-mindfulness: with MBSR = 3.53 vs. without MBSR = 3.16, monetary attitudes: 2.48 vs. 2.96, and consumer ethical beliefs: 3.43 vs. 3.21) were much smaller than the original mean differences of MANOVA results reported in our last paragraph. Our findings confirmed that the two groups are comparable, thus providing confidence that we can test our hypotheses and theoretical model.

Confirmatory Factor Analysis

Our study includes 36 items and eight factors: (1) 15-item for trait mindfulness, (2) 3 items for affective motive, (3) 3 items for behavioral stewardship behavior, (4) 4 items for cognitive meaning, (5) 3 items for actively benefiting from illegal activities, (6) 2 items for passively benefiting at the expense of the seller, (7) 3 items for deceptive or questionable practices, and (8) 3 items for experiencing no harm, no foul activities. In Model 1, we combined the 36-item, eight-construct measure into a one-factor reflective model ($\chi^2 = 6{,}992.77$; df = 595; $p = 0.00$; χ^2/df = 11.75; confirmatory fit index (CFI) = 0.38; incremental fit index (IFI) = 0.38; Tucker-Lewis index (TLI) = 0.34; root mean square error of approximation (RMSEA) = 0.11). Our Model 2 established a reflective measurement model with eight separate constructs and their respective items. Model 2 showed excellent fit indices (Table 3) ($\chi^2 = 1{,}826.23$; df = 572; $p = 0.00$; χ^2/df = 3.19; CFI = 0.91; IFI = 0.90; TLI = 0.91; RMSEA = 0.05), significantly better than Model 1 ($\Delta\chi^2 = 5{,}166.54$; Δdf = 23; $p < 0.001$; ΔCFI = *0.55*; ΔRMSEA = *0.06*).

Measurement Invariance

We used the MGCFA to check the measurement invariance of the model across two groups (with MBSR training, $n = 523$ vs. without MBSR training, $n = 307$). Table 3, Model 3 shows excellent fit indices, supporting configural (factor structure) invariance across two groups. We set all factor loadings to be the same across the two groups in a constrained MGCFA (Model 4). Because the differences between Models 3 and 4 were non-significant (ΔCFI/ΔRMSEA<0.01), we achieved metric (factor loading) invariance across two groups. Our configural (factor structure) and metric (factor loading) invariance between those with MBSR and those without MBSR offered additional support for the equivalence of two samples.

We selected Model 2 for our study. We presented composite reliability coefficients (Jöreskog $rh\hat{o} > 0.70$) and internal convergent validity[5] ($rh\hat{o}_{vc} > 0.50$) and assessed discriminant validity (Fornell and Larcker 1981). Table 3 shows the results of the CFA of the four scales for the whole sample. We also identified excellent goodness of fit between our theoretical model and our data across groups (Model 11, short-term vs. long-term; Model 12, with practice vs. without practices).

Common Method Variance (CMV)

Because we collected cross-sectional data using survey questionnaires at one point in time, there was a potential common method variance bias (CMV). Following suggestions in the literature (Podsakoff et al. 2003), we selected different scale anchors for our measures to avoid CMV biases. We tested for CMV by introducing an unmeasured latent CMV construct and set a path from it to all 36 observed items; we set one path to be 1. We connected all latent constructs using a double arrow. Common method variance is not an issue if the addition of the CMV latent factor does not significantly improve the fit of the model over the same measurement

[5] Internal consistency indicates at least a moderate correlation among the indicators of a construct. A score of average variance extracted (AVE) above 0.5 indicates convergent validity (Fornell and Larcker 1981).

Table 3 Main results of our theoretical model

Model	χ^2	df	p	χ^2/df	CFI	IFI	TLI	RMSEA	Models	$\Delta\chi^2$	Δdf	ΔCFI	ΔRMSEA
1. Reflective 36-item 1-factor	6992.77	595	0.00	11.75	0.38	0.38	0.34	0.11	1 vs 2	5166.54	23	0.55	0.06
2. Reflective 36-item, 8-factor	1826.23	572	0.00	3.19	0.91	0.90	0.91	0.05					
3. Model 3 MGCFS across 2 groups: with MBSR vs. without MBSR	2128.94	1,199	0.0	1.82	0.90	0.90	0.90	0.03	3 vs 4	58.85	4	0.00	0.01
4. Model 3 + constraint	2187.79	1195	0.00	1.83	0.90	0.90	0.90	0.04					
5. Model 4 across 2 time periods (short-term, 2 months < MBSR training ≤ 1 year vs. long-term, 1 year < MBSR training < 2 years)	1905.20	1147	0.00	1.66	0.91	0.90	0.90	0.03	5 vs 6	22.93	28	0.00	0.01
6. Model 4 across 2 time periods + constraint	1928.13	0.175	0.00	1.64	0.91	0.90	0.90	0.04					
7. All constructs (36-item, 8-factor)	1826.23	572	0.00	3.19	0.91	0.90	0.91	0.05	6 vs 7	516.74	35	0.02	0.01
8. All constructs (36-item, 8-factor) + CMV	1309.49	537	0.00	2.43	0.93	0.93	0.91	0.04					
9. Theoretical model	1532.27	584	0.00	2.62	0.92	0.92	0.92	0.04					
10. Theoretical model across MBSR vs. no MBSR groups	2090.49	1168	0.00	1.79	0.92	0.92	0.91	0.03					
11. Theoretical model across short vs. long-term impact groups	1730.87	1168	0.00	1.48	0.92	0.93	0.91	0.03					
12. Theoretical model with practice vs. without practice	1942.27	1138	0.00	1.70	0.90	0.91	0.90	0.05					

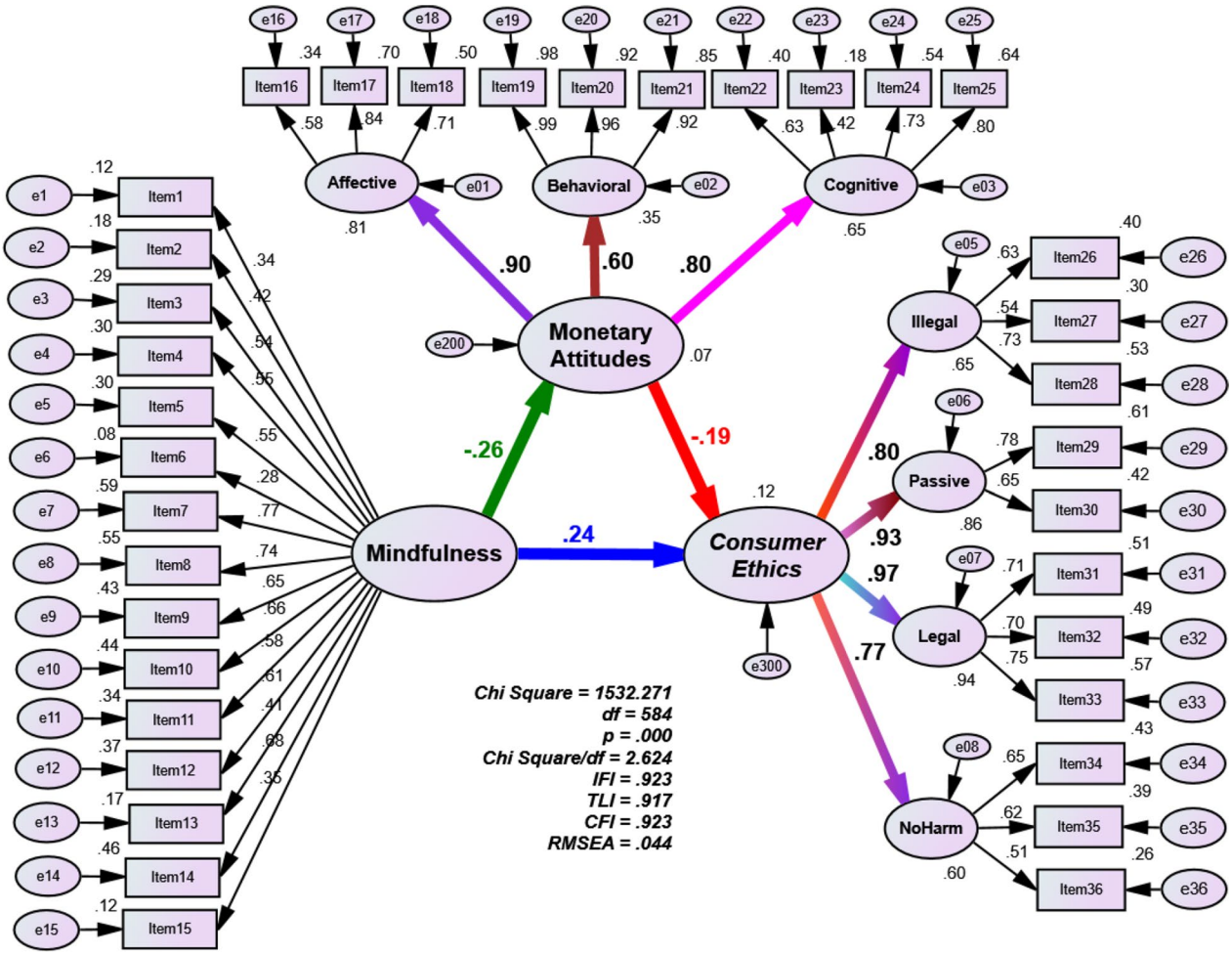

Fig. 2 Results of our theoretical model (whole sample)

model without it. We compared Models 7 and 8 and found no significant difference (ΔCFI/ΔRMSEA ≤ 0.01). CMV is not a concern in our study. These findings offer us robust confidence in testing our hypotheses.

Hypotheses Testing

Hypotheses 1–3 (Main Theoretical Model)

Figure 2 shows results of our theoretical model ($N = 830$; $\chi^2 = 1{,}532.27$; df = 584; $p < 0.001$; $\chi^2/\text{df} = 2.62$; CFI = 0.92; IFI = 0.92; TLI = 0.92; RMSEA = 0.04) (Table 3, Model 9). Trait mindfulness was positively related to consumer ethics ($\beta = 0.24$; $t = 4.49$; $p < 0.001$), supporting Hypothesis 1. Trait mindfulness was negatively associated with monetary attitudes ($\beta = -0.26$; $t = -5.15$; $p < 0.001$), supporting Hypothesis 2. Finally, monetary attitudes were negatively related to consumer ethics ($\beta = -0.19$; $t = -4.00$; $p < 0.001$), supporting Hypothesis 3(Table 4).

Mediation Effect

To test the proposed mediation effects, we followed Preacher et al.'s (2007) procedure to compute bias-corrected bootstrap confidence intervals (95% CI), using Hayes's (2013) SPSS macro with 1000 bootstrap samples. Table 5 reveals the mediation findings, indicating direct, indirect, and total effects for the entire sample and the subsequent MGCFA. For the entire sample, the CIs did not include zero, indicating a full mediation effect. The positive indirect path was significant (Mindfulness → Monetary Attitudes → Consumer Ethics; $\beta = 0.05$; 95% CI [0.03; 0.27]; $p < 0.001$). Trait mindfulness enhanced consumer ethics, both directly and indirectly, through monetary attitudes, in support of Hypotheses 2, 3, and 4.

Table 4 Results of the eight-factor CFA model ($N = 830$)

Construct	Item	Standardized factor loading	Critical ratio for regression weight	Reliability (Jöreskog rhô)	Convergent validity	No harm	Questionable	Passive	Active	MA Behavioral	MA cognitive	MA affective	MAAS
MAAS	x1	0.65	*	0.90	0.50								X
	x2	0.60	10.00										
	x3	0.80	17.46										
	x4	0.73	12.45										
	x5	0.74	13.50										
	x6	0.70	12.10										
	x7	0.70	12.90										
	x8	0.76	15.04										
	x9	0.74	13.02										
	x10	0.65	10.11										
	x11	0.65	10.14										
	x12	0.68	11.51										
	x13	0.58	8.56										
	x14	0.60	10.02										
	x15	0.65	10.30										
Monetary attitude affective	x16	0.58	*	0.75	0.50							X	0.03 (− 0.18)
	x17	0.82	15.62										
	x18	0.71	14.81										
Monetary attitude cognitive	x19	0.66	*	0.81	0.51						X	0.42 (0.65)	0.03 (− 0.19)
	x20	0.73	15.94										
	x21	0.79	16.60										
	x22	0.68	10.30										
Monetary attitude behavioral	x23	0.93	*	0.84	0.66					X	0.19 (0.44)	0.24 (0.49)	0.04 (− 0.21)
	x24	0.91	37.03										
	x25	0.53	11.04										
Active	x26	0.70	*	0.75	0.50				X	0.39 (0.63)	0.00 (− 0.09)	0.04 (− 0.21)	0.07 (0.27)
	x27	0.67	11.30										
	x28	0.76	15.50										
Passive	x29	0.71	*	0.70	0.52			X	0.42 (0.65)	0.02 (− 0.15)	0.00 (− 0.07)	0.02 (− 0.16)	0.39 (0.63)
	x30	0.72	14.13										
Questionable	x31	0.72	*	0.74	0.50		X	0.02 (0.15)	0.38 (0.62)	0.01 (− 0.10)	0.01 (− 0.13)	0.01 (− 0.13)	0.00 (0.08)
	x32	0.56	11.44										
	x33	0.73	13.44										

Table 4 (continued)

Construct	Item	Standardized factor loading	Critical ratio for regression weight	Reliability (jöreskog rhô)	Convergent validity	No harm	Questionable	Passive	Active	MA Behavioral	MA cognitive	MA affective	MAAS
No harm	x34	0.68	*	0.75	0.51	X	0.03 (0.19)	0.36*** (0.60**)	0.37 (0.61)	0.00 (− 0.06)	0.01 (− 0.10)	0.03 (− 0.18)	0.39 (0.11)
	x35	0.77	14.02										
	x36	0.68	10.50										

*Used to provide the scale for the related construct

**Shared variance among trait factors

***Correlations among trait factors

Moderation Effect

With MBSR Training vs. Without MBSR Training

We now turn to our comparison (with vs. with MBSR training) using multiple-group confirmatory factor analysis (MGCFA). Table 3 (Model 10) shows the results of the theoretical model across participants in two groups (with MBSR training vs. without MBSR training) (see Figs. 3 and 4).

With MBSR training

For those with MBSR training program, we showed the direct path (Path 1: Mindfulness → Consumer Ethics, $\beta = 0.26$, 95% CI [0.15; 0.36]; $p < 0.001$) was significant. Path 2 (Mindfulness → Monetary Attitudes; $\beta = -0.22$ $t = -3.28$; $p < 0.001$) and path 3 (Monetary Attitudes → Consumer Ethics; $\beta = -0.13$; $t = -0.2.61$; $p < 0.05$) were also significant. Monetary attitudes served as a mediator. The standardized direct, indirect, and total (direct + indirect) effects from trait mindfulness to consumer ethics were 0.26, 0.29, and 0.04, respectively.

Without MBSR training

For the group without MBSR training, the direct path (Path $1 = \beta = 0.20$, 95% CI [0.05; 0.30]; $p < 0.05$) was significant. However, the indirect effect failed to reach significance ($\beta = 0.02$, 95% CI [− 0.01; 0.06]; $p = 0.08$) (Table 5, Model 2). Interestingly, as expected, Path 2 was not significant ($\beta = -0.12$; $t = -1.68$; $p = 0.09$). Due to the lack of MBSR training, trait mindfulness had no impact on reducing monetary attitudes. Path 3 ($\beta = -0.18$; $t = -2.19$; $p < 0.05$) was significant. The standardized direct, indirect, and total effects from trait mindfulness to consumer ethics 0.20, 0.22, and 0.02, respectively.

Finally, pairwise comparisons showed that the differences between those with and without MBSR training were significant for Path 1 ($z = -2.01$; $p < 0.05$), Path 2 ($z = -3.31$; $p < 0.001$), and Path 3 ($z = -1.99$; $p < 0.05$). Our findings supported Hypotheses 5a and 5b. MBSR training matters.

Post-MBSR Training Duration ("Short-Term" vs. "Long-Term")

Short-Term Group

Table 3, Model 11, shows the results of the theoretical model across two groups of MBSR participants (short-term vs. long-term). For the short-term group ($n = 262$), both the direct path ($\beta = 0.33$, 95% CI [0.15; 0.47]; $p < 0.001$) and indirect path were significant ($\beta = 0.05$, 95% CI [0.01; 0.13];

Table 5 Results of the mediation effect

	Path	*p*	Bootstrapped confidence interval	Mediation
1. Whole sample				Total Mediation effect
Direct effect: MAAS → Consumer ethics	0.24	< 0.001	[0.22; 0.54]	
Total effect: MAAS → Consumer ethics	0.29	< 0.001	[0.23; 0.39]	
Indirect effect: MAAS → Money Attitude → Consumer ethics	0.05	< 0.001	[0.03; 0.27]	
2. Across two groups (MBSR group vs. Without MBSR group)				
2.1. MBSR group				Partial Mediation Effect
Direct effect: MAAS → Consumer ethics	0.26	< 0.001	[0.15; 0.36]	
Total effect: MAAS → Consumer ethics	0.29	< 0.001	[0.19; 0.39]	
Indirect effect: MAAS → Monetary Attitudes → Consumer ethics	0.04	< 0.05	[0.01; 0.16]	
2.2. Without MBSR group				Direct only No mediation effect
Direct effect: MAAS → Consumer ethics	0.20	< 0.05	[0.05; 0.30]	
Total effect: MAAS → Consumer ethics	0.22	< 0.05	[0.07; 32]	
Indirect effect: MAAS → Monetary Attitudes → Consumer ethics	0.02	= 0.08	[− 0.01; 0.06]	
3. *Duration of Time Since MBSR Training* (Short-term vs. Long-term impact)				
3.1. 'Short-term' group				Partial Mediation effect
Direct effect: MAAS → Consumer ethics	0.33	< 0.001	[0.15; 0.47]	
Total effect: MAAS → Consumer ethics	0.38	< 0.001	[0.22; 0.55]	
Indirect effect: MAAS → Monetary attitudes → Consumer ethics	0.05	< 0.05	[0.01; 0.13]	
3.2. 'Long-term' group				Direct only No mediation effect
Direct effect: MAAS → Consumer ethics	0.21	< 0.05	[0.06; 0.34]	
Total effect: MAAS → Consumer ethics	0.28	< 0.05	[0.05; 0.37]	
Indirect effect: MAAS → Monetary attitudes → Consumer ethics	0.02	= 0.08	[− 0.01; 0.06]	
4. With and Without Practice After MBSR Training (Long-term impact)				
4.1. 'Long-term' group with practice				Partial Mediation effect
Direct effect: MAAS → Consumer ethics	0.38	< 0.001	[0.15; 0.36]	
Total effect: MAAS → Consumer ethics	0.44	< 0.001	[0.20; 0.44]	
Indirect effect: MAAS → Monetary attitudes → Consumer ethics	0.06	< 0.05	[0.04; 0.18]	
4.2. 'Long-term' group without practice				No direct effect No mediation effect
Direct effect: MAAS → Consumer ethics	0.11	= 0.91	[− 0.05; 0.30]	
Total effect: MAAS → Consumer ethics	0.12	= 0.85	[− 0.07; 0.32]	
Indirect effect: MAAS → Monetary attitudes → Consumer ethics	0.01	= 0.60	[− 0.04; 0.06]	

$p < 0.05$). As expected, both Path 2 ($\beta = -0.26$; $t = -2.23$; $p < 0.05$) and Path 3 ($\beta = -0.18$; $t = -1.99$; $p < 0.05$) were significant. The standardized direct, indirect, and total effects from trait mindfulness to consumer ethics 0.33, 0.38, and 0.05, respectively.

Long-Term Group

For the long-term group ($n = 261$), the direct path was significant (Path 1 = 0.21, 95% CI [0.06; 0.34]; $p < 0.05$) but the indirect effect was not ($\beta = 0.02$, 95% CI [− 0.01; 0.06]; $p = 0.08$). For the indirect path, Path 2 (− 0.17, $t = -2.07$; $p < 0.05$) was significant but Path 3 (− 0.14; $t = -1.65$; $p = 0.09$) was not. Therefore, the duration of time since MBSR training matters. The standardized direct, indirect, and total effects from trait mindfulness to consumer ethics were 0.21, 0.28, and 0.02, respectively.

Pairwise comparisons further suggested that the differences between the short-term group and the long-term group were significant for Path 1 ($z = -2.62$; $p < 0.05$), Path 2 ($z = -2.04$; $p < 0.05$), and Path 3 ($z = -1.97$; $p < 0.05$). Our findings supported Hypotheses 6a and 6b. The duration of time after MBSR training matters.

Long-Term MBSR Training Participants (With Practice vs. Without Practice)

With Practice

Table 3 (Model 12) shows our theoretical model's results across two groups of MBSR participants (with practice vs.

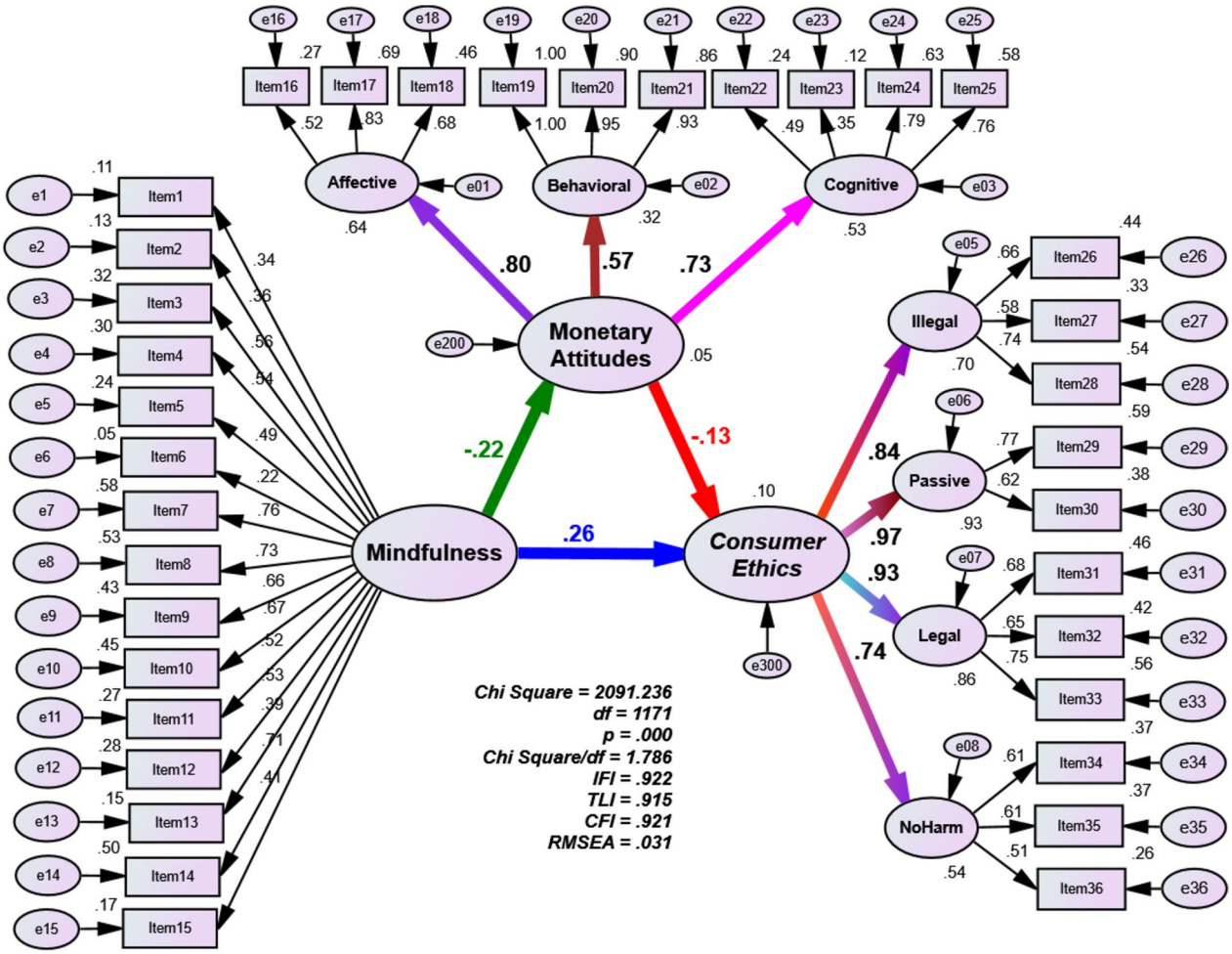

Fig. 3 Results of our theoretical model (MGCFA: With MBSR Group)

without practice). We conducted further analyses of the long-term impact group (more than 1 year). For members continued to practice mindfulness frequently (every day or several times a week, $n = 189$), our results suggested that all three paths were significant (Path $1 = 0.38$, $p < 0.001$; Path $2 = -0.24$; $p < 0.05$; Path $3 = -0.17$; $p < 0.05$). The standardized direct, indirect, and total effects from trait mindfulness to consumer ethics were 0.38, 0.44, and 0.06, respectively.

Without Practice

For those who no longer practiced mindfulness, all three paths failed to reach significance (Path $1 = 0.11$; $p = 0.91$; Path $2 = -0.12$; $p = 0.91$; Path $3 = -0.13$; $p = 0.35$). Thus, practice matters. The small sample size ($n = 72$) may contribute to these non-significant findings. The standardized direct, indirect, and total effects from trait mindfulness to consumer ethics were 11, 0.12, and 0.01, respectively.

Moreover, pairwise comparisons revealed that the differences between members who continued to practice mindfulness frequently and those who no longer practiced mindfulness, all three paths were significant for Path 1 ($z = -3.01$; $p < 0.05$), Path 2 ($z = -2.32$; $p < 0.05$), and Path 3 ($z = -1.98$; $p < 0.05$). Our findings supported Hypothesis 7. The practice of mindfulness matters.

Discussion

Theoretical Contributions

This study makes four main contributions to literature. First, we offer a better understanding of why consumers do or do not adopt consumer ethical beliefs. Prior research has established that mindfulness was associated with ethical decision-making (Ruedy and Schweitzer 2010), perceived ethical values (Valentine et al. 2010), and more recently to ethical consumer practices (Dhandra and Park 2018). This

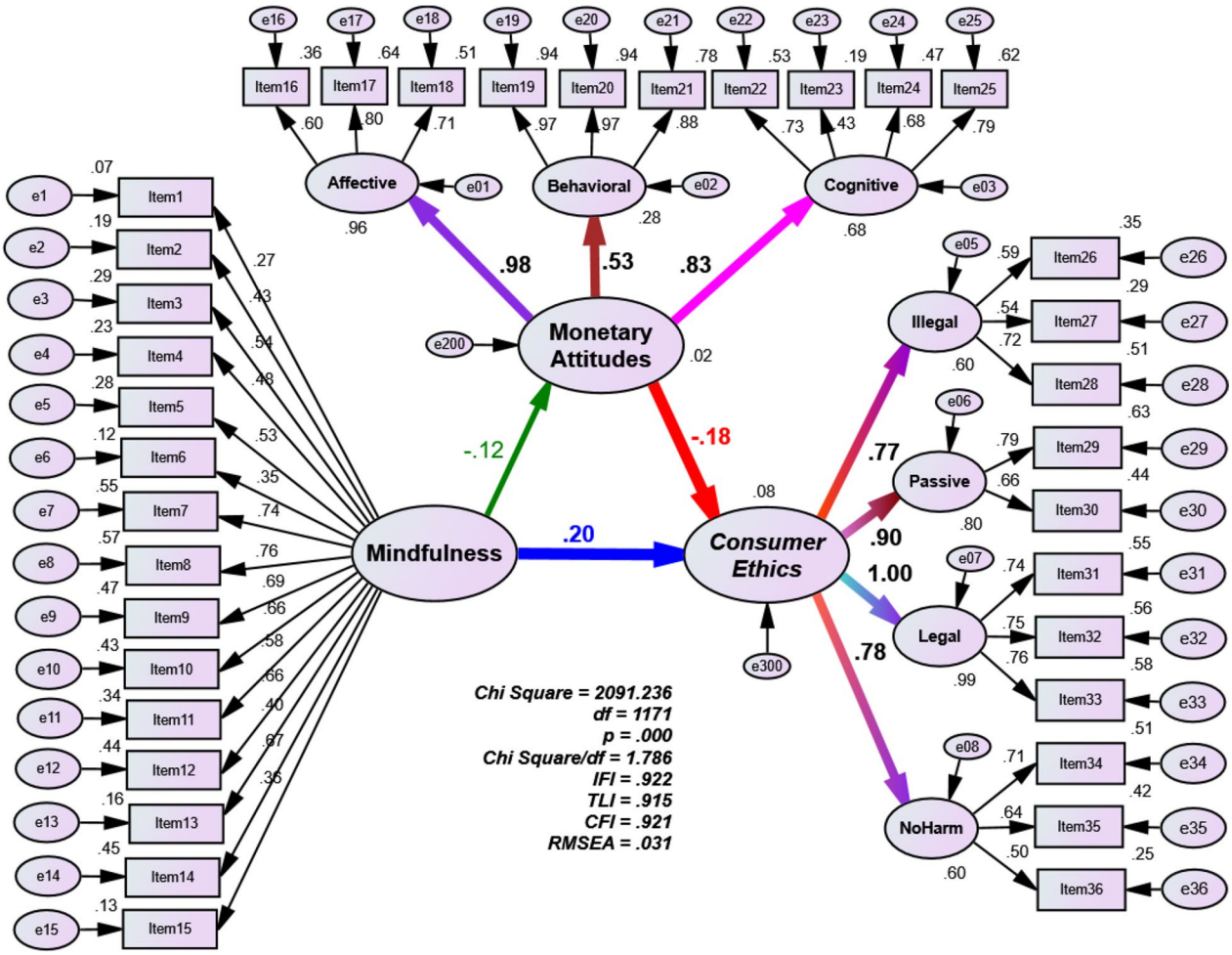

Fig. 4 Results of our theoretical model (MGCFA: Without MBSR Group)

study extends previous findings by linking trait mindfulness to ethical consumer beliefs, not only by confirming the positive effect of trait mindfulness on consumer ethics but also by proposing an explanatory mechanism through monetary attitudes. Money is power. Avaricious monetary attitudes lead to unethical attitudes. Mindfulness curbs avaricious monetary attitudes, which, in turn, excites ethical beliefs. Mindful individuals have a comprehensive internal and external attentional breadth (Dane and Brummel 2014) and are more able to observe the various ethical/unethical issues related to consumers.

For the entire sample, we treat avaricious monetary attitudes (Tang 2016; Tang et al. 2018b, c) as a mediator of the relationship between trait mindfulness (Brown and Ryan 2003) and consumer ethics. Mindfulness enhances consumer ethical beliefs (Muncy and Vitell 1992), not only directly, but also indirectly through the reduction of avaricious monetary attitudes.

Second, we answer Fischer et al.'s (2017) call and study the role of MBSR training in enhancing the trait mindfulness—consumer ethics relationship through avaricious monetary attitudes. We offer new validity and generalizability of our study by testing our model within two groups of participants: individuals with MBSR training and those without MBSR training. Trait mindfulness promotes ethical beliefs for both groups (with and without MBSR training), but the strength of the direct path (path 1) for the group with MBSR training is more durable than the group without training. Also, the indirect effect is significant for the group with training but non-significant for the group without training. Trait mindfulness reduces avaricious monetary attitudes for those who have completed MBSR training (supporting our Path 2) but not for those who have not. Therefore, MBSR training matters.

Third, we answer Fischer et al.'s (2017) call to investigate the effects of mindfulness interventions over months or even years, identifying that ranges of time are untested in the studies they reviewed. In this study, we investigate the effects of post-MBSR training duration (short-term vs. long-term) as a moderator in our theoretical model. Our

findings provide valuable information about the sustainability of mindfulness training. We tested our model within two groups of MBSR participants: participants who had finished their formal MBSR training less than a year (short-term), and participants who had completed their training more than a year (long-term). Overall, for the direct path, trait mindfulness enhances consumer ethics (Path 1). For the indirect path, trait mindfulness reduces avaricious monetary attitudes consistently (Path 2) for those with MBSR training, regardless of the duration of time since the training. However, for Path 3, the results differ. The effect of MBSR training on lowering people's levels of avaricious monetary attitudes remains potent for participants who had ended their training within a year (short-term). However, the effect faded away for those who had finished the training within 2 years (long-term). Thus, the effectiveness of MBSR training has a potential time limit and does not last forever; the duration of time after MBSR training matters.

Fourth, Fischer et al. (2017) suggested that research designs should incorporate the assessment and evaluation of short- and long-term mindfulness practice. Slemp et al. (2019) further echoed the same concern, stating the importance of future studies to report not only the time lags but also the regular contemplative practice after the intervention. Thus, we investigated the effect of the *practice* of mindfulness as a moderator. Among participants who completed MBSR training more than 1 year but less than 2 years (long-term group), we compared those who had continued to practice mindfulness frequently (every day or several times a week) with those who had given up practicing mindfulness. The direct relationship between trait mindfulness and consumer ethics (Path 1) prevailed for those who were still practicing mindfulness but did not exist for those who no longer practiced mindfulness. Path 2 (Mindfulness → Monetary Attitudes) and Path 3 (Monetary Attitudes → Consumer Ethics) were significant only for those who were still practicing mindfulness frequently. Consequently, continuous practice sustains the benefits of the training—the practice of mindfulness matters.

In summary, we identify new antecedents and intricate mechanisms to improve consumer ethical beliefs. The presence of the MBSR training, a short post-training duration, and continuous practice of MBSR excite consumer ethical beliefs directly and indirectly, through the reduction of avaricious monetary attitudes. We expand our theoretical framework and understanding of monetary intelligence by including antecedents (mindfulness) and consequences (consumer ethics), offering novel implications regarding the impacts of mindfulness on consumer ethics, in particular, and business ethics, in general.

Practical Contributions

Apart from its theoretical contributions, our research has significant implications for a wide range of domains, including consumer research, public policy, and business ethics. First, mindfulness is positively related to the development of consumer ethics. Mindfulness interventions encourage self-transcendent values and reduce materialistic goals, such as avaricious monetary attitudes. Policymakers should support these interventions in conjunction with other policies that will diminish contemporary culture's focus on consumption, power, and materialism. In this regard, the effects of mindfulness are threefold. Mindful people naturally turn to products or companies that convey ethical values (Dhandra and Park 2018). Thus, corporations should enhance, promote, and leverage their products and services' "green brand equity." Such promotions will attract customers' attention and consumption (Chen 2010). By improving moral reasoning and ethical judgments, mindfulness also can help consumers guard against aggressive advertising campaigns. Mindfulness training can develop consumers' ethical decision-making skills by increasing their awareness of potential ethical issues linked to consumption. Mindfulness-trained consumers are more likely to purchase in moral and ethical ways. Moreover, at the organizational level, MBIs help organizations gain competitive advantage, develop employees' ethical mindsets, and enhance positive images of companies' green equity, corporate social responsibility (CSR) (Zhou et al. 2018), ultimately leading to sustainable innovations and growth (Gu et al. 2015; Jiang et al. 2019; Siqueira and Pitassi 2016).

Second, people, in general, and millennials, in particular, are more concerned with meaningful work, in addition to earning money (Dingli and Seychell 2015). This value shift creates generational gaps between older and younger generations (Gentina et al. 2018b). Although pay is still a consideration for most people, it is becoming less relevant. People are driven more by intrinsic rewards and types of work (Jurgensen 1978). Consequently, investing in mindfulness training could be connected to young generations' emerging search for meaning. Companies should aim to balance the intrinsic drivers of motivation with mindfulness training programs in their human resource policies.

Third, our study sheds new light on the debate about the effectiveness of MBIs over time. The benefits of mindfulness training fade away after 1 year. Attending MBSR training should not be a one-time initiative. MBSR participants expecting long-term benefits should take notice that continuous practice is needed. We show that the relationship between trait mindfulness and consumer ethics is significant only for participants who continue to practice meditation after their MBSR training ended more than a year earlier.

To receive the full benefit of mindfulness training, people must practice MSBR regularly.

External support can come from apps such as "Insight Timer" or "Petit BamBou" and from professional mindfulness trainers who offer "refreshers" in the form of silent retreats and ad hoc meditation sessions in open groups, either in physical locations or online. In the case of in-company MBIs, participants may maintain the benefits of mindfulness through initiatives such as wellness rooms equipped with meditation cushions and shawls, where employees can organize regular group meditation session using, for example, meditation recordings.

Limitations and Future Research

In our study, we did not assign our participants to the two groups randomly. We are grateful to 523 participants who personally paid for their MBSR training and answered our survey and to other participants without MBSR training. Our MANOVA and MANCOVA results offer some assurance for using our convenience data. There were no significant differences in participants' demographic variables (MANOVA), trait mindfulness, avaricious monetary attitudes, and consumer ethics across these two groups of participants (MANCOVA) after controlling for demographic variables. Besides equivalence of variables' means, we demonstrated configural and metric measurement invariance for measurement models across these two samples. Our theoretical model's significant paths help us understand the intricate mechanisms among three constructs, offering additional, novel insights across three contexts using MGCFAs.

Our cross-sectional design does not establish solid cause-and-effect relationships. Scholars must use randomized design and longitudinal data to examine the effects of MBIs on changes in trait mindfulness over time. Future research may explore our model across multiple times: trait mindfulness (Time 1), avaricious monetary attitudes (Time 2), and consumer ethics (Time 3). Scholars may determine whether mindfulness interventions hold up over time and whether changes in trait mindfulness account for a long-term impact on monetary attitudes and consumer ethics.

We collected our data in the individualistic country of France. In collectivist cultures, the development of a mindful spirit may differ, due to cultural norms (Özyesi 2012). Researchers could replicate our findings in other religions and cultures, studying distinct cultural backgrounds, conceptualizations, and experiences of mindfulness in under-researched areas of the world (Ivtzan et al. 2017).

Conclusion

Data from our entire sample support our theory that mindfulness promotes ethical beliefs directly, and indirectly through the reduction of avaricious monetary attitudes. Our MGCFA reveals novel discoveries: The direct path for people with MBSR training is more durable than that of those without MBSR training. Without training, trait mindfulness does not curb avaricious monetary attitudes—mindfulness training matters. It prevents people from falling into temptation and becoming unethical. Within the short-term duration after MBSR training (within 1 year), trait mindfulness enhances consumer ethical beliefs both directly and indirectly. However, the power of lower levels of avaricious monetary attitudes to enhance consumer ethical beliefs diminishes in the long-term context (1 year < MBSR training < 2 years). Thus, the MBSR training does not have a permanent impact. Further, *practice* is needed to maintain the potency of the training—practice matters. Our findings offer practical implications in consumer research, materialism, mindfulness, monetary wisdom, consumer ethics, and business ethics.

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Compliance with Ethical Standards

Conflict of interest The authors declared no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent We obtained informed consent from all individuals included in the study.

Appendix 1: Mindfulness & ethics—empirical studies

Mindfulness	Authors	Sample	Mindfulness measure	Ethical measure	Key findings
Trait	Barbaro and Pickett (2016)	Study 1: 360 undergraduate students at a Midwest University, mean age 20,11 years Study 2: 296 participants with a mean age of 38 years	Five Facets Mindfulness Questionnaire (Baer et al. 2006)	Connectedness to nature scale (CNS; Mayer and Frantz 2004) Pro-environmental behavior scale (PEB; Whitmarsh and O'Neill 2010)	Mindfulness is significantly associated with pro-environmental behavior and connectedness to nature
Trait	Brown and Kasser 2005	Study 1: 206 students in two Midwest US middle and high schools, mean age 14,2 Study 2: 440 adults mean age 44 years	MAAS (Brown and Ryan 2003)	Ecological Footprint Questionnaire (EFQ; Dholakia and Wackernagel 1999)	Mindfulness promotes ecologically responsible behavior
Trait	Dandhra and Park (2018)	146 students from a large public university in India, mean age of 21	MAAS (Brown and Ryan 2003)	Ethical beliefs with the CES (Vitell and Muncy 2005)	Mindful individuals make lenient ethical judgments
Trait	Kalafatoglu and Turgut (2017)	250 white collar employees working in Istanbul	Freiburg Mindfulness Inventory (Walach et al. 2006)	Ethical Behavior Rating Scale (Blasi 1980; Hogan 1973)	Mindfulness has significant relationships with ethical behavior.
Trait	Pandey et al. (2018)	Study 1: 390 graduate business students from four business schools in western and southern parts of India Study 2: 92 graduate students enrolled in a master's program in management in a premier business school in India	Five Facets Mindfulness Questionnaire (Baer et al. 2006)	Moral Judgment Interview (MJI) (Kohlberg et al. 1981)	Trait mindfulness is positively related to moral reasoning Mindfulness training is positively related to moral reasoning
Trait	Reb et al. (2018)	Study 1: 76 triads of leaders, subordinates and peers, primarily Singaporean by nationality and Chinese by ethnic descent. Study 2: 227 dyads of leaders-subordinates	MAAS (Brown and Ryan 2003)	Interpersonal justice (Colquitt 2001)	Leader mindfulness is positively related to employee interpersonal justice
Trait and intervention	Ruedy and Schweitzer (2010)	Study 1: 97 participants from a large North-eastern university Study 2: 135 participants, mean age 21,1	MAAS (Brown and Ryan 2003) MMS (Bodner and Langer 2001)	Self-reported Inappropriate Negotiation Strategies Scale (SINS; Robinson et al. 2000) Self-importance of moral identity (SMI) (Aquino and Reed 2002). CAM (carbonless anagram method)	Study 1 establishes a significant link between trait mindfulness and ethical decision-making Study 2 suggests that mindfulness curtails unethical behavior
Trait and intervention	Shapiro et al. (2012)	25 adults from a graduate course at a local university	Five Facets Mindfulness Questionnaire (Baer et al. 2006) MAAS (Brown and Ryan 2003)	DIT-2	MBSR is associated with improved moral reasoning and ethical decision-making

Appendix 2: Items and Constructs of our Major Measures

1. Mindfulness* (MAAS, Brown and Ryan 2003)

    1. I could be experiencing some emotion and not be conscious of it until sometime later.
    2. I break or spill things because of carelessness, not paying attention, or thinking of something else.
    3. I find it difficult to stay focused on what's happening in the present.
    4. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.
    5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention.
    6. I forget a person's name almost as soon as I've been told it for the first time.
    7. It seems I am "running on automatic" without much awareness of what I'm doing.
    8. I rush through activities without being really attentive to them
    9. I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there
    10. I do jobs or tasks automatically, without being aware of what I'm doing
    11. I find myself listening to someone with one ear, doing something else at the same time
    12. I drive places on 'automatic pilot' and then wonder why I went there
    13. I find myself preoccupied with the future or the past
    14. I find myself doing things without paying attention
    15. I snack without being aware that I'm eating.

2. Avaricious Monetary Attitudes** (Tang et al. 2018b)

Affective

    1. I want to be Rich
    2. Money is a Motivator
    3. Money is Important

Behavioral

    4. I work hard to make money
    5. I budget money carefully
    6. I donate money to charities and give money to the poor.

Cognitive

    7. Money is a sign of my achievement
    8. Money helps me earn respect
    9. Money represents power
    10. Money makes me feel good

3. Consumer Ethics (Muncy and Vitell 1992)***

Actively Benefiting from Illegal Activities

    1. Giving misleading price information to a clerk for an unpriced item†
    2. Using the phone card–SIM–of a cell phone that does not belong to you†
    3. Drinking a can of soda in a store without paying for it†
    4. Changing price tags on merchandise in a retail store
    5. Returning damaged goods when the damage was your fault

Passively Benefiting

    6. Lying about a child's age to get a lower price
    7. Not saying anything when the waiter or waitress miscalculates a bill in your favor†
    8. Getting too much change and not saying anything†
    9. Being on holidays in a rented apartment with your family, you use an Internet connection without paying for it

Deceptive or Questionable

    10. Knowingly using an expired coupon for merchandise†
    11. Returning merchandise to a store by claiming it was a gift when it was not†
    12. Using a coupon for merchandise you did not buy†

No Harm/No Foul

    13. Spending over an hour trying on clothes and not buying anything†
    14. Downloading movies on Internet rather than buying them†
    15. Returning merchandise because you don't like it†
    16. Borrowing a CD from a friend, burning it rather than buying it

All items were measured using a 5-point scale with different scale anchors.

**Almost always very frequently* (1) to *very infrequently* (6).

***Strongly disagree* (1) to *strongly agree* (5).

****Strongly believe that it is wrong* (1) to *strongly believe that it is not wrong* (5).

A high score means doing something unethical.

†Items used in the theoretical model.

References

Allen, T. D., & Kiburz, K. M. (2012). Trait mindfulness and work-family balance among working parents: The mediating effects of vitality and sleep quality. *Journal of Vocational Behavior, 80*(2), 372–379.

Aquino, K., & Reed, A. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology*, *83*(6), 1423–1440.

Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice*, *10*(2), 125–143.

Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment, 13,* 27–45.

Barbaro, N., & Pickett, S. M. (2016). Mindfully green: Examining the effect of connectedness to nature on the relationship between mindfulness and engagement in pro-environmental behavior. *Personality and Individual Difference, 93,* 137–142.

Bartlett, L., Martin, A., Neil, A. L., Memish, K., Otahal, P., Kilpatrick, M., et al. (2019). A systematic review and meta-analysis of workplace mindfulness training randomized controlled trials. *Journal of Occupational Health Psychology*, *24*(1), 108–126.

Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., et al. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*(3), 230–241.

Blasi, A. (1980). Bridging moral cognition and moral action: A critical review of the literature. *Psychological Bulletin*, *88*(1), 1–45.

Bodner, T. E., & Langer, E. J. (2001). Individual differences in mindfulness: The Mindfulness/Mindlessness Scale. In Poster presented at the 13th annual American Psychological Society Conference, June 2001, Toronto, Ontario, Canada.

Brown, K. W., & Kasser, T. (2005). Are psychological and ecological well-being compatible? The role of values, mindfulness, and lifestyle. *Social Indicators Research, 74,* 349–368.

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*(4), 822–848.

Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry, 18*(4), 211–237.

Burroughs, J. E., & Rindfleisch, A. P. (2002). Materialism and well-being: A conflicting values perspective. *Journal of Consumer Research, 29*(3), 348–370.

Carlson, L. E., & Brown, K. W. (2005). Validation of the Mindful Attention Awareness Scale in a cancer population. *Journal of Psychosomatic Research, 58,* 29–33.

Chaskalson, M., & Hadley, S. G. (2015). Mindfulness: Historical and contemplative context and recent developments. In *Mindfulness in organizations: Foundations, research, and applications* (pp. 42–99).

Chen, Y. S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business Ethics, 93*(2), 307–319.

Chen, J. Q., Tang, T. L. P., & Tang, N. Y. (2014). Temptation, monetary intelligence (love of money), and environmental context on unethical intentions and cheating. *Journal of Business Ethics, 123*(2), 197–219.

Chen, Y. J., & Tang, T. L. P. (2013). The bright and dark sides of religiosity among university students: Do gender, college major, and income matter? *Journal of Business Ethics, 115*(3), 531–553.

Choi, E., & Leroy, H. (2015). Methods of mindfulness: how mindfulness is studied in the workplace. In *Mindfulness in organizations: foundations, research, and applications: Foundations, research, and applications* (pp. 67–99). Cambridge University Press.

Chowdhury, R. (2019). The moral foundations of consumer ethics. *Journal of Business Ethics, 158,* 585–601.

Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, *86*(3), 386–400.

Condon, P. (2017). Mindfulness, compassion, and prosocial behaviour. In J. C. Karremans & E. K. Papies (Eds.), *Mindfulness in social psychology* (pp. 124–138). Routledge/Taylor & Francis Group.

Condon, P., Desbordes, G., Miller, W. B., & DeSteno, D. (2013). Meditation increases compassionate responses to suffering. *Psychological Science, 24*(10), 2125–2127.

Dane, E. (2011). Paying attention to mindfulness and its effects on task performance in the workplace. *Journal of Management, 37*(4), 997–1018.

Dane, E., & Brummel, B. J. (2014). Examining workplace mindfulness and its relations to job performance and turnover intention. *Human Relations, 67*(1), 105–128.

Dhandra, T. K., & Park, H. J. (2018). Mindfulness and gender differences in ethical beliefs. *Social Responsibility Journal, 14*(2), 274-286.

Dingli, A., & Seychell, D. (2015). *The new digital natives. Cutting the chord*. Princeton, NJ: Princeton University Press.

Ditto, D., Eclache, M., & Goldman, N. (2006). Short-term autonomic and cardiovascular effects of mindfulness body scan meditation. *Annals of Behavioral Medicine, 32*(3), 227–234.

Donald, J., Sahdra, B., Van Zanden, B., & Ciarrochi, J. (2019). Does your mindfulness benefit others? A systematic review and meta-analysis of the link between mindfulness and prosocial behavior. *British Journal of Psychology*, *110*(1), 101–125.

Eby, L. T., Allen, T. D., Conely, K. M., Williamson, R. L., Henderson, T. G., & Mancini, V. S. (2017). Mindfulness-based training interventions for employees: A qualitative review of the literature. *Human Resource Management Review, 29*(2), 156–178.

Fischer, D., Stanszus, L., Geiger, S., Grossman, P., & Schrader, U. (2017). Mindfulness and sustainable consumption: A systematic literature review of research approaches and findings. *Journal of Cleaner Production, 162,* 544–558.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement errors. *Journal of Marketing Research, 18*(1), 39–50.

Forsyth, D. R. (1992). Judging the morality of business practices: The influence of personal moral philosophies. *Journal of Business Ethics, 11*(5/6), 461–470.

Gentina, E., & Tang, T. L. P. (2018). Does adolescent popularity mediate relationships between both theory of mind and love of money and consumer ethics? *Applied Psychology: An International Review, 67*(4), 723–767.

Gentina, E., Shrum, L. J., Lowrey, T., Rose, G. M., & Vitell, S. J. (2018a). An integrative model of the influence of parental and peer support on consumer ethical beliefs: The mediating role of self-esteem, power and materialism. *Journal of Business Ethics, 150*(4), 1173–1186.

Gentina, E., Tang, T. L. P., & Dancoine, P.-F. (2018c). Does Gen Z's emotional intelligence promote iCheating (cheating with iPhone) yet curb it through reduced nomophobia? *Computers & Education*, *126*, 231–247.

Gentina, E., Tang, T. L. P., & Gu, Q. X. (2018b). Do parents and peers influence adolescents' monetary intelligence and consumer ethics? French and Chinese adolescents and behavioral economics. *Journal of Business Ethics, 151*(1), 115–140.

Giluk, T. L. (2009). Mindfulness, Big Five personality, and affect: A meta-analysis. *Personality and Individual Differences, 47*(8), 805–811.

Good, D. J., Lyddy, C. J., Glomb, T. M., Bono, J. E., Brown, K. W., Duffy, M. K., et al. (2016). Contemplating mindfulness at work: An integrative review. *Journal of Management, 42*(1), 114–142.

Gu, Q. X., Tang, T. L. P., & Jiang, W. (2015). Does moral leadership enhance employee creativity? Employee identification with leader and leader-member exchange (LMX) in the Chinese context. *Journal of Business Ethics*, *126*(3), 513–529.

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis*. New-York: The Guilford.

Hogan, R. (1973). Moral conduct and moral character: A psychological perspective. *Psychological Bulletin*, *79*(4), 217–232.

Ivtzan, I., Young, T., Lee, H. C., Lomas, T., Daukantaitė, D., & Kjell, O. N. E. (2017). Mindfulness based flourishing program: A cross-cultural study of Hong Kong Chinese and British Participants. *Journal of Happiness Studies, 19*(8), 2205–2223.

Jermann, F., Billieus, J., Laroi, F., & D'Argembeau, A. (2009). Mindful Attention Awareness Scale (MAAS): Psychometric properties of the French translation and exploration of its relations with emotion regulation strategies. *Psychological Assessment, 21*(4), 506–514.

Jiang, W., Gu, Q. X., & Tang, T. L. P. (2019). Do victims of supervisor bullying suffer from poor creativity? Social cognitive and social comparison. *Journal of Business Ethics*, *157*(3), 865–884.

Joinson, A. (1999). Social desirability, anonymity, and internet-based questionnaires. *Behavior Research Methods, Instruments, & Computers, 31,* 433–438.

Jurgensen, C. E. (1978). Job preferences (What makes a job good or bad?) *Journal of Applied Psychology*, *63*(3), 267-276.

Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General Hospital Psychiatry, 4,* 33–47.

Kabat-Zinn, J. (2005). *Coming to our senses healing ourselves and the world through mindfulness*. New-York: New-York Hyperion.

Kalafatoğlu, Y., & Turgut, T. (2017). Another benefit of mindfulness: Ethical behavior. *International Journal of Social Sciences and Education Research, 3*(3), 772–782.

Kang, C., & Whittingham, K. (2010). Mindfulness: A dialogue between Buddhism and clinical psychology. *Mindfulness, 1,* 161–173.

Kasser, T. (2002). *The high price of materialism*. Cambridge, MAA: The MIT Press.

Kasser, T. (2016). Materialistic values and goals. *Annual Review of Psychology, 67,* 489–514.

Kohlberg, L. (1981). *The philosophy of moral development: Moral stages and the idea of justice*. New York: Harper and Row.

La Forge, P. G. (2000). Four steps to a fundamental ethical vision through meditation. *Journal of Business Ethics, 28*(1), 25–34.

Langer, E. J., & Modoveanu, M. (2000). The construct of mindfulness. *Journal of Social Issues, 56*(1), 1–19.

Lemrová, S., Reiterová, E., Fatěnová, R., Lemr, K., & Tang, T. L. P. (2014). Money is power: Monetary intelligence—love of money and temptation of materialism among Czech university students. *Journal of Business Ethics, 125*(2), 329–348.

Locke, E. A., Feren, D. B., McCaleb, V. M., Shaw, K. N., & Denny, A. T. (1980). The relative effectiveness of four methods of motivating manager performance. In K. D. Duncan, M. M. Gruneberg, & D. Wallis (Eds.), *Changes in working life* (pp. 363–388). New York: Wiley.

Lomas, T., Medina, J. C., Ivtzan, I., Rupprecht, S., & Eiroa-Orosa, F. J. (2019). Mindfulness-based interventions in the workplace: An inclusive systematic review and meta-analysis of their impact upon wellbeing. *The Journal of Positive Psychology, 14*(5), 625–640.

Lu, L. C., & Lu, C. J. (2010). Moral philosophy, materialism, and consumer ethics: An exploratory study in Indonesia. *Journal of Business Ethics, 94*(2), 193–210.

Marques, J. (2012). Consciousness at work: A review of some important values, discussed from a Buddhist perspective. *Journal of Business Ethics, 105*(1), 27–40.

Mayer, F. S., & Frantz, C. M. (2004). The connectedness to nature scale: A measure of individuals' feeling in community with nature. *Journal of Environmental Psychology*, *24*, 503–515.

Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry*, *15*(3), 197–215.

Mitchell, T. R., & Mickel, A. E. (1999). The meaning of money: An individual difference perspective. *Academy of Management Review, 24*(3), 568–578.

Muncy, J., & Vitell, S. J. (1992). Consumer ethics: An investigation of the ethical beliefs of the final consumer. *Journal of Business Ethics, 24*(4), 297–311.

Niemiec, C. P., Brown, K. W., Kashdan, T. B., Cozzolino, P. J., Breen, W. E., Levesque-Bristol, C., et al. (2010). Being present in the face of existential threat: The role of trait mindfulness in reducing defensive responses to mortality salience. *Journal of Personality and Social Psychol-ogy, 99*(2), 344–365.

Oishi, S. (2015). Geography and personality: Why do different neighborhoods have different vibes? *Proceedings of the National academy of Sciences of the United States of America, 112*(3), 645–646.

Özyesi, Z. (2012). Mindfulness and psychological needs: A cross-cultural comparison. *Elementary Education Online, 11*(1), 151–160.

Pandey, A., Chandwani, R., & Navare, A. (2018). How can mindfulness enhance moral reasoning? An examination using business school students. *Business Ethics: A European Review, 27*(1), 56–71.

Papies, E. K., Pronk, T. M., Keesman, M., & Barsalou, L. W. (2015). The benefits of simply observing: Mindful attention modulates the link between motivation and behavior. *Journal of Personality and Social Psychology, 108*(1), 148–170.

Park, H. J., & Dhandra, T. K. (2017). The effect of trait emotional intelligence on the relationship between dispositional mindfulness and self-esteem. *Mindfulness, 8,* 1206–1211.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903.

Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research, 2*(1), 185–227.

Rallapalli, K. C., Vitell, S. J., Wiebe, F. A., & Barnes, J. H. (1994). Consumer ethical beliefs and personality traits: An exploratory analysis. *Journal of Business Ethics, 13*(7), 487–495.

Rawwas, M. Y. A., & Singhapakdi, A. (1998). Do consumers' ethical beliefs vary with age? A substantiation of Kohlberg's typology in marketing. *Journal of Marketing Theory and Practice, 6*(2), 26–37.

Reb, J., Chaturvedi, S., Narayanan, J., & Kudesia, R. (2018). Leader mindfulness and employee performance: A sequential mediation model of LMX quality, interpersonal justice, and employee stress. *Journal of Business Ethics, 160*(3), 745–763.

Robertson, K., McNeill, L., Green, J., & Roberts, C. (2012). Illegal downloading, ethical concern, and illegal behavior. *Journal of Business Ethics, 108*(2), 215–227.

Robinson, R. J., Lewicki, R. J., & Donahue, E. M. (2000). Extending and testing a five factor model of ethical and unethical bargaining tactics: Introducing the SINS scale. *Journal of Organizational Behavior*, *21*(6), 649–664.

Ruedy, N. E., & Schweitzer, M. E. (2010). In the moment: The effect of mindfulness on ethical decision making. *Journal of Business Ethics, 95*(1), 73–87.

Ruiz, F. J., Suárez-Falcón, J. C., & Riaño-Hernánde, D. (2016). Psychometric properties of the Mindful Attention Awareness Scale in Colombian undergraduates. *Suma Psicol, 23*(1), 18–24. https://doi.org/10.1016/j.sumpsi.2016.02.003.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 Countries. *Advances in Experimental Social Psychology, 25,* 1–65.

Segal, Z. V., Teasdale, J. D., Williams, J. M., & Gemar, M. C. (2002). The Mindfulness-Based Cognitive Therapy Adherence Scale: Interrater reliability, adherence to protocol and treatment distinctiveness. *Clinical Psychology and Psychotherapy, 9,* 131–138.

Sevinc, G., & Lazar, S. W. (2019). How does mindfulness training improve moral cognition: A theoretical and experimental framework for the study of embodied ethics. *Current Opinion in Psychology, 28,* 268–272.

Shapiro, S. L., Brown, K., Thoresen, C., & Plante, T. G. (2011). The moderation of Mindfulness-based stress reduction effects by trait mindfulness: Results from a randomized controlled trial. *Journal of Clinical Psychology, 67*(3), 267–277.

Shapiro, S. L., Jazaieri, H., & Goldin, P. (2012). Mindfulness-based stress reduction effects on moral reasoning and decision making. *The Journal of Positive Psychology, 7*(6), 504–515.

Siqueira, R. P., & Pitassi, C. (2016). Sustainability-oriented innovations: Can mindfulness make a difference? *Journal of Cleaner Production, 139,* 1181–1190.

Slemp, G. R., Jach, H. K., Chia, A., Loton, D. J., & Kern, M. L. (2019). Contemplative interventions and employee distress: A meta-analysis. *Stress and Health, 35*(3), 227–255.

Spence, G., & Cavanagh, M. J. (2019). The impact of three forms of mindfulness training on mindfulness, wellbeing and goal attainment: Findings from a randomised controlled trial and implications for coaching. *International Coaching Psychology Review, 14*(2), 24–43.

Srivastava, A., Locke, E. A., & Bartol, K. M. (2001). Money and subjective well-being: It's not the money, it's the motives. *Journal of Personality and Social Psychology, 80*(6), 959–971.

Talhelm, T., Zhang, X., Oishi, S., Shimin, C., Duran, D., Lan, X., et al. (2014). Large-scale psychological differences within China explained by rice versus wheat agriculture. *Science, 344*(6180), 603–608.

Tang, T. L. P. (1992). The meaning of money revisited. *Journal of Organizational Behavior, 13,* 197–202.

Tang, T. L. P. (2012). Detecting honest people's lies in handwriting: The power of the Ten Commandments and internalized ethical values. *Journal of Business Ethics*, *106*, 389–400.

Tang, T. L. P. (2016). Theory of Monetary Intelligence: Money attitudes—religious values, making money, making ethical decisions, and making the grade. *Journal of Business Ethics, 133*(3), 583–603.

Tang, T. L. P. (2020a). Monetary wisdom: a measure of attitude toward money—constructs and items. In D. Poff & A. Michalos (Eds.), *Encyclopedia of business and professional ethics*. Basel: Springer.

Tang, T. L. P. (2020b). Monetary wisdom: from the Holy Bible to a management theory. In A. Akande, B. Adetoun, & M. Adewuyi (Eds.), *The global nature of organization phenomena*. Hauppauge, New York: Nova Science Publishers in Conjunction with Springers Publishing Company.

Tang, T. L. P., & Chen, Y. J. (2008). Intelligence vs wisdom: The love of money, Machiavellianism, and unethical behavior across college major and gender. *Journal of Business Ethics, 82*(1), 1–26.

Tang, N. Y., Chen, J. Q., Li, Z., & Tang, T. L. P. (2019). *Aspiration (love of money), stock volatility, and stock happiness among city and country dwellers—A longitudinal study*. Paper presented at the International Convention of Psychological Science (ICPS), Paris, France.

Tang, N. Y., Chen, J. Q., Zhang, K. L., & Tang, T. L. P. (2018a). Monetary wisdom: How do investors use love of money to frame stock volatility and enhance stock happiness? *Journal of Happiness Studies, 19*(6), 1831–1862.

Tang, T. L. P., & Chiu, R. K. (2003). Income, money ethic, pay satisfaction, commitment, and unethical behavior: Is the love of money the root of evil for Hong Kong managers? *Journal of Business Ethics, 46*(1), 13–30.

Tang, T. L. P., Kim, J. K., & Tang, D. S. H. (2000). Does attitude toward money moderate the relationship between intrinsic job satisfaction and voluntary turnover? *Human Relations, 53*(2), 213–245.

Tang, T. L. P., & Liu, H. (2012). Love of money and unethical behavior intention: Does an authentic supervisor's personal integrity and character (ASPIRE) make a difference? *Journal of Business Ethics, 107*(3), 295–312.

Tang, T. L. P., Luna-Arocas, R., Quintanilla Pardo, I., & Tang, T. L. N. (2014). Materialism and the bright and dark sides of the financial dream in Spain: The positive role of money attitudes—The Matthew Effect. *Applied Psychology: An International Review, 63*(3), 480–508.

Tang, T. L. P., & Sutarso, T. (2013). Falling or not falling into temptation? Multiple faces of temptation, monetary intelligence, and unethical intentions across gender. *Journal of Business Ethics, 116*(3), 529–552.

Tang, T. L. P., Sutarso, T., Ansari, M. A., Lim, V. K. G., Teo, T. S. H., Arias-Galicia, F., et al. (2018b). Monetary intelligence and behavioral economics across 32 cultures: Good apples enjoy good quality of life in good barrels. *Journal of Business Ethics, 148*(4), 893–917.

Tang, T. L. P., Sutarso, T., Ansari, M. A., Lim, V. K. G., Teo, T. S. H., Arias-Galicia, F., et al. (2018c). Monetary intelligence and behavioral economics: The Enron Effect—Love of money, corporate ethical values, corruption perceptions index (CPI), and dishonesty across 31 geopolitical entities. *Journal of Business Ethics, 148*(4), 919–937.

Tang, T. L. P., & Tang, T. L. N. (2010). Finding the lost sheep: A panel study of business students' intrinsic religiosity, Machiavellianism, and unethical behavior intention in a public institution. *Ethics & Behavior*, *20*(5), 352–379.

Valentine, S., Godkin, L., & Varca, P. E. (2010). Role conflict, mindfulness, and organizational ethics in an education-based healthcare institution. *Journal of Business Ethics, 94*(3), 455–469.

Vitell, S. J., & Muncy, J. (2005). The Muncy-Vitell Consumer Ethics Scale: A modification and application. *Journal of Business Ethics, 62*(3), 267–275.

Vitell, S. J., Singh, J. J., & Paolillo, J. G. P. (2007). Consumers' ethical beliefs: The roles of money, religiosity and attitude toward business. *Journal of Business Ethics, 73*(4), 369–379.

Vohs, K. D., Mead, N. L., & Goode, M. (2006). The psychological consequences of money. *Science, 314,* 1154–1156.

Walach, H., Buchheld, N., Buttenmüller, V., Kleinknecht, N., & Schmidt, S. (2006). Measuring mindfulness—the Freiburg Mindfulness Inventory (FMI). *Personality and Individual Differences*, *40*(8), 1543–1555.

Wang, G., Liu, L., Tan, X., & Zheng, W. (2017). The moderating effect of dispositional mindfulness on the relationship between materialism and mental health. *Personality and Individual Differences, 107,* 131–136.

Weinstein, N., Przybylski, A. K., & Ryan, R. M. (2009). Can nature make us more caring? Effects of immersion in nature on intrinsic aspirations and generosity. *Personality and Social Psychology Bulletin, 35*(10), 1315–1329.

Whitmarsh, L., & O'Neill, S. (2010). Green identity, green living? The role of pro-environmental self-identity in determining consistency across diverse pro-environmental behaviours. *Journal of Environmental Psychology*, *30*(3), 305–314.

Zhou, Z. C., Luo, B. N. F., & Tang, T. L. P. (2018). Corporate social responsibility excites "exponential" employee attitudes: The Matthew Effect in CSR and sustainable policy. *Corporate Social Responsibility and Environmental Management*, *25*, 339–354.