



Holistic thinking and risk-taking perceptions reduce risk-taking intentions: ethical, financial, and health/safety risks across genders and cultures

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Abstract

Holistic thinking involves four subconstructs: causality, contradiction, attention to the whole, and change. This holistic perspective varies across Eastern–Western cultures and genders. We theorize that holistic thinking reduces three domain-specific risk-taking behavioral intentions (ethical, financial, and health/safety) directly and indirectly through enhanced risk-taking attitudes. Our formative theoretical model treats the four subconstructs of holistic thinking as yoked antecedents and frames it in a proximal context of causes and consequences. We simultaneously explore the direct and indirect paths and test our model across cultures, genders, and the combination of the two. For the entire sample ($N=531$), holistic thinking negatively relates to risk intentions via enhanced risk perceptions. Across cultures, the indirect paths prevail among Chinese people ($n=284$), and both direct and indirect paths triumph for Americans ($n=247$). Across genders, the indirect paths exist for females, whereas the negative direct path (risk-taking attitudes → behavioral intentions) succeeds for males. Across cultures and genders, holistic thinking negatively relates to American males' ethical risks the most but Chinese males' financial risks the least. Risk-taking perceptions are negatively related to Chinese males' ethical risks the most, but Chinese people's (males/females) financial risks the least. Causality and change are vital for all contexts, attention to the whole for all males and Chinese males, and contradiction for Americans and all females. Holistic thinking has limits and is less robust than risk-taking perceptions in reducing risky behavioral intentions. Our practical implications help people make ethical, healthy, and wealthy decisions.

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Extended author information available on the last page of the article

Keywords Holistic thinking · Risk perceptions/attitudes · Behavioral intentions · Ethical/financial/health safety/COVID-19 · Decision-making · Cultures/Eastern–Western/China–the USA · Genders · The love of money/avaricious aspiration/monetary wisdom/intelligence · Enron/corruption/dishonesty/creativity/Sanlu infant formula, Causality/karma · Behavioral decision-making · The Matthew effect/the rich get richer

The difference between genius and stupidity is that genius has its limits.

Albert Einstein (1879–1955)

Introduction

In China, Sanlu Group (三鹿集团), a state-owned enterprise and one of the largest dairy producers, adulterated infant formula with a toxic industrial compound called melamine to boost protein content in nutrition tests. This 2008 food safety scandal caused kidney damage, six fatalities, and 300,000 affected babies, creating a devastating blow to the dairy industry. China *executed* Yujun Zhang and Jinping Geng for producing and selling melamine-laced protein powder. Sanlu's former chairwoman, Wenhua Tian, received a life sentence. Several former Sanlu executives served 5- to 15-year prison terms. More than 100 foreign brands, considered more trustworthy than Sanlu, quickly gained 50–80% of the infant formula market (Huang, 2014).

Corruption involves risky decisions under uncertainty (Kahneman, 2011). Enron rewarded executives using long-term shareholder value. The bottom-line mentality caused astute, wealthy, and creative executives to take risks, apply mark-to-market accounting, and trump stock price to \$90.75 per share at its peak, pleasing Wall Street. *Fortune* mistakenly recognized *Enron* as “America’s Most Innovative Company” from 1996 to 2001. CEO Jeffrey Skilling (Harvard MBA) gained \$132 million. The top management team obtained \$282.7 million. Consequently, corruption destroyed Enron, Arthur Andersen, and 110,000 employees’ careers. Enron’s founder, Kenneth Lay, died of a heart attack before sentencing. CEO Jeffrey Skilling served in prison for 12 years, and CFO Andrew Fastow served for 6 years. It was not the lack of intelligence (brains) but the lack of wisdom (virtue) that caused corruption (Tang & Chen, 2008). Did greedy Samlu and Enron executives apply *holistic thinking* to identify their ethical, financial, and health/safety attitudes, behaviors, and consequences to prevent scandals (BBC News, 2009)?

Risk-takers have high creativity (Xu et al., 2022). Creative thinkers become dishonest (Gino & Ariely, 2012). Dishonesty can lead to greater creativity (Gino & Wiltermuth, 2014). Innovative thinkers challenge the status quo and create *timely* ideas by putting old things in new combinations and new ideas in old combinations (Grant, 2016). Multinational enterprises (MNEs) rely on employees’ creativity to improve productivity and global competitiveness (Amabile, 1998; Amabile et al., 2002; Gu et al., 2015; Jiang et al., 2019). Research suggests that non-conformists, risk-takers, rule-breakers, and original thinkers share several common traits—creativity and dishonesty (Gino & Ariely, 2012; Gino & Wiltermuth, 2014). We could

not retrospectively investigate executives' decision-making, unfortunately. However, we could select university students as a proxy (Fisman & Miguel, 2007) to investigate their cognitive thinking processes and risky decision-making. Here is our rationale. Experimental subjects are like the general population (Exadaktylos et al., 2013). Laboratory findings replicate managers' behavioral intentions using surveys (Chen et al., 2014). Although students do not have actual work experience, they *will* become future managers and policymakers. This study fills the void and helps future managers avoid corruption and risky ethical, financial, and health/safety decision-making.¹

We theorize that holistic thinking helps individuals make ethical, financial, and health/safety decisions. Following the theory of planned behavior (TPB), attitudes, subjective norms, and perceived behavioral control predict behavioral intentions and actual behaviors (Ajzen, 1991; Kish-Gephart et al., 2010). Attitudes predict behaviors when there is a high correspondence between attitudes and behavioral options. The risk-taking attitudes and behavioral intentions (Weber et al., 2002) may vary across cultures and genders (Spencer-Rodgers & Peng, 2018).

This study selects decision-makers' deep-rooted personal values (holistic thinking) as a lens. We establish a *formative* theoretical model and treat the four sub-constructs (causality, contradiction, attention to the whole, and change) as yoked antecedents of the *latent* holistic thinking construct. We frame the latent construct in the immediate-proximal context (cause-and-effect relationship), leading to risk-taking behavioral intentions directly and indirectly via their risk-taking attitudes. We select risk-taking *attitudes* and *behavior intentions* and focus on three domain-specific risk-taking domains: ethical, financial, and health/safety (Blais & Weber, 2006; Weber et al., 2002). We argue that holistic thinking may curb risk-taking intentions directly and indirectly via their heightened awareness of their risk-taking attitudes. Chinese people in emerging markets tend to take more financial risks than their American counterparts (Bloomberg, 2016; Tang, 1992). There are differences in risk-taking and corruption across genders and cultures (Tang et al., 2018b, c). Following our opening stories, Sanlu in China and Enron in the USA, we collected data from Chinese and American students and tested our model across moderators.

Our formative structural equation theoretical model (SEM) involves university students' holistic thinking, risk-taking attitudes, and behavioral intentions (Nisbett & Masuda, 2003). We simultaneously explore the direct and indirect paths for the whole sample and across moderators. We ask the following: which subconstructs significantly define holistic thinking in the risk-taking contexts? Does holistic thinking reduce risk-taking intentions directly and indirectly through risk-taking attitudes? Are there differences across cultures, genders, and the combination (Brands et al., 2022)? Who will benefit from holistic thinking and risk-taking attitudes the most (the least) regarding ethical, financial, and health/safety risks? Our discoveries offer novel insights into these questions and help people improve their decision-making processes and maximize utility and ultimate serenity, providing practical implications for scholars and practitioners in business ethics.

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Theory and hypotheses

Prospect theory

Prospect theory suggests that a rational decision-maker prefers the prospect that offers the highest expected utility (Kahneman & Tversky, 1984). The formation of the problem, the norms, and the decision-maker characteristics influence their decision frame. Prospect theory frames decisions under risk in the “gains–losses domain” and “high–low probability” and posits the *fourfold pattern* of preferences. This theory involves risk-aversion in the domain of gains and risk-seeking in the realm of losses under the context of high probability (the certainty effect) and risk-seeking in the region of gains and risk-averse in the domain of losses under the condition of low probability (the possibility effect).

Following prospect theory, we explicitly incorporate individuals’ *decision-maker characteristics*—fundamental values and cognitive functions—holistic thinking and risk-taking attitudes. We treat these specific characteristics as *a lens* through which decision-makers *frame* critical concerns (risk-taking behavioral intentions) in the proximal (causes and consequences) context at the individual level (males vs. females) and distal context at the country level (China vs. the USA) to maximize their expected utility and ultimate serenity (Tang, 2021). Weber et al. (2002) examined domain-specific risk-taking attitudes and behavioral intentions across ethical, financial, and health/safety domains. We theorize that individuals may adopt the *risk-seeking* orientation in some domains but the *risk-aversion* approach in others, revealing within-subjects differences, which may vary across contexts (cultures and genders). Figure 1 illustrates our overarching theoretical model. We introduce our significant constructs in the sections below.

Holistic thinking

Holistic thinking style vs. analytical thinking style This study selects Choi et al.’s (2007) Analysis-Holism Scale (AHS). Those with high AHS scores judge similarity based on overall similarity than on rules. Individuals with high holistic thinking consider a more significant amount of information in causal reasoning than those without holistic thinking. The naïve dialecticism scale (Spencer-Rodgers et al., 2004) includes change, contradiction, and holism (Chen et al., 2012), predicting cross-cultural differences in the ambivalence of self-concept and self-esteem and within-cultural differences (Choi et al., 2007).

On the one hand, *holistic thinking* is not a direct or indirect measure of intelligence, depicts a nonlinear and constantly changing view, and makes people spread out their attentive resource allocation. This holistic thinking style reflects how individuals use their executive cognitive functions, consider cause-and-effect relationships, and evaluate the consequences of their decisions and actions. Holistic thinkers see complex interconnectedness in the context and reconcile contradictions to find inner truth (Choi & Nisbett, 2000; Masuda & Nisbett, 2001; Monga & John, 2006; Nisbett et al., 2001). Easterners find intricate relationships among all elements.

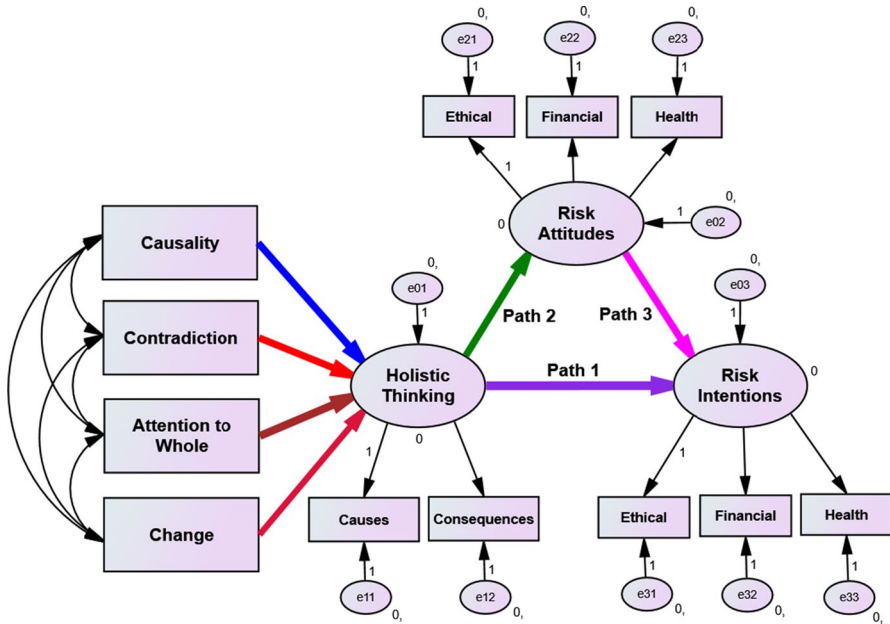


Fig. 1 Our theoretical model of holistic thinking, risk-taking attitudes, and risk-taking behavioral intentions

Thus, it is essential to incorporate holistic thinking to enhance creativity in management education (Karakas, 2011). However, very little research has focused on the literature on holistic thinking’s impacts on ethical, financial, and health/safety decision-making (Preis, 2019).

On the other hand, *the analytical thinking style* portrays a linear, stable, and separate view of the world and concentrates their attentive resource allocation corresponding to the *current* demand. Analytic thinking represents the opposite of holistic thinking. Westerners consider the universe has many independent objects (Spencer-Rodgers et al., 2004). We theorize that holistic thinking may impact people’s ethical, financial, and health/safety decision-making. We introduce holistic thinking’s four components—causality, contradiction, attention, and change below (Choi et al., 2007).

Causality Causality infers the relationship between cause and effect. All actions have consequences. Chinese people explain the same events using contextual factors, whereas Americans explain events by invoking presumed traits, abilities, or individual characteristics (Choi & Nisbett, 1998; Morris & Peng, 1994).

Contradiction Contradictory propositions can be right at the same time. One may pursue a compromised middle ground. In tai chi, ☯, yin and yang’s notion reveals deep meaning in the Asian culture. The black and white coexist—one cannot separate the yin and yang by cutting through the center origin of the tai chi.

Attention to the whole Chinese consider individuals as a part of a giant and complex social organism. Confucius' (551–479 BC) *five constant virtues* elaborated obligations between emperor and subject, parent and child, husband and wife, older brother and younger brother, and friend and friend. Chinese see more covariance between two arbitrary objects than Americans (Ji et al., 2000). Similarly, the Japanese make 70% more statements about the environment's *background* than Americans (Masuda & Nisbett, 2001).

Change A state of constant change reflects a *non-static* phenomenon. Chinese are more likely than Americans to predict the shift and reversal trends of the current state (Tang et al., 2018a). One proposition may eventually transform into its opposite, the principle of change. Holistic thinking reflects the combination of these four closely related constructs. However, no empirical research has investigated the holistic thinking construct using a formative theoretical model. Therefore, we know very little about these four subcomponents' relative contributions to the overall latent holistic thinking construct (cf. Tang et al., 2018b) (Fig. 1).

We summarize our review of the literature here. Ji et al.'s (2000) cross-cultural study explored how people pick two items from three options—train, bus, and tracks. Asians choose the train and tracks (trains run on tracks, sharing a functional relationship). In contrast, Westerners choose the train and bus (the same abstract category of vehicles). Westerners are analytic, pay attention to the objective and the categories it belongs to, and use rules to understand their behavior. Supervisors who engage in holistic thinking and have integrative complexity are likely to display paradoxical behaviors and increase subordinates' proficiency, adaptivity, and proactivity (Zhang et al., 2015). High holistic thinkers maintain higher ambivalence and consider employee creativity more stable than low holistic thinkers (Zhang et al., 2022).

Among 10,017 randomly selected individuals in 28 provinces, Chinese believers of native Taoism and Buddhism exhibit more sustainable HOPE (Help Ourselves Protect the Environment) than other religions (Mo et al., 2022). Coexisted for more than 2000 years with Confucianism, Taoism advocates the unity of heaven and humankind (天人合一) and believes in *karma* (actions decide future destiny, 因果报应).² Most believers of Taoism and Buddhism are vegetarians, respect the five precepts, and refrain from killing nature's animals. Killing living creatures leads to rebirth in hell (Badiner, 2012). *Karma* involves *causality* and *change*, reflecting two essential components of holistic thinking.

During an economic crisis, Nissan, a Japanese-owned (non-unionized) automobile manufacturing plant in the USA, maintained full employment and cut costs simultaneously, i.e., a challenging example of *contradiction*. How did they do that in a crisis? In Chinese, the phrase crisis has two components: 危机—danger and opportunity. Nissan reduced employees' regular 40-h workweek to a 30-h workweek yet paid them for 35 h of work (Laws & Tang, 1999), creating an excellent

² Here is a common expression: what goes around comes around. One shall not mistreat others and living creatures. Following Merriam-Webster, if someone treats other people badly he or she will eventually be treated badly by someone else.

compensation strategy (Gerhart, 2023) and strong justice perceptions (Al Halbusi et al., 2022; Özbek et al., 2016; Tang et al., 2000). This strategy helped reduce Nissan's costs and keep employees' jobs. Nissan and its employees suffered a little, tightening their belts together. Without job loss, satisfied employees rejected the union. UAW³ organizers closed the office in Smyrna, Tennessee,⁴ and returned to Detroit, Michigan. Nissan's actions crafted a win-win solution, reflecting *causality* and *change*. At the same time, other unionized corporations in the USA experienced significant layoffs or plant closings, resulting in the permanent loss of *rare* talents to competitors. Not paying attention to the *whole* had dire consequences at the organizational level. Holistic thinking is *different* from collectivism (Triandis et al., 1988).

In a recent ERP (event-related potentials) study, holistic thinking individuals have higher insight performance in the adverse effect condition than in the positive affect context. However, analytic thinking participants showed better insight performance in the positive affect domain than in the negative situation (Li et al., 2015, 2022). The bullwhip effect examines the amplification of demand variability along supply chains. A significant negative relationship exists between a holistic versus analytic thinking orientation subdomain and the bullwhip effect (Brauch & Größler, 2022). Only the reported use of specific details is negatively related to the bullwhip effect. In marketing, holistic thinkers attribute negative consumption experiences to the retailer; analytic thinkers attribute them to the manufacturer (Yoon, 2013). Holistic thinkers are *not* responsive to nine-ending prices (\$0.99 vs. \$1.00) (Tu & Pulling, 2018). Other studies examined holistic thinkers and drama movies, culture, and decisions (Bacha-Trams et al., 2018; Nisbett & Masuda, 2003; Popham et al., 2011; Xia et al., 2021). Thinking about *love*, people typically focus on a *long-term* perspective, promoting *holistic* thinking and creative thoughts. Thinking about *sexual* encounters, individuals pay attention to the *present*, enhancing *analytic* thinking (Förster et al., 2009). People automatically activate these processing styles when they consider love or encounter sex.

The COVID-19 pandemic has caused critical concerns regarding vaccine safety and health. Faasse et al. (2016) found that people in pro- and anti-vaccination groups apply more *risk-related* and causation words and fewer positive emotion words than the control group. Anti-vaccine comments used more *analytical* thinking, lower authenticity, more body and *health* references, and a higher percentage of work-related words than the pro-vaccination and more *money* references than those in the control group. Pro-vaccine comments are more authentic and related to family and social processes and anxiety. Following our literature review, holistic thinking impacts individual, organization-industry, and country-global-level decision-making (Tang, 2021).⁵ We now turn to domain-specific risk-taking attitudes and risk-taking behavioral intentions.

³ International Union of United Automobile, Aerospace, and Agricultural Implement Workers of America.

⁴ Tennessee adopted a right-to-work (RTW) statute in 1947 and is one of the 27 Right-to-Work states.

⁵ Russian's invasion of Ukraine significantly impacted the economy, food, gas, and oil supply chain, and individuals' survival, health, safety, humanity, and peace at the local, regional, and global levels.

Domain-specific risk-taking attitudes and risk-taking intentions

Following the theory of planned behavior (TPB), we apply Weber et al.'s (2002) domain-specific risk-taking (DOSPERT) scale to measure the risk-taking attitudes and risk-taking behavior intentions, covering risks in five domains: ethical, financial, social, health/safety, and recreational decisions (Blais & Weber, 2006). *Risk-taking attitudes* measure individuals' evaluation of each behavior's *riskiness*. *Risk-taking intentions* reflect participants' *likelihood* to engage in domain-specific risk activities. Hanoch et al. (2006) suggested that using multilevel analyses, within-participant variation in risk-taking across the five dangerous domains is about seven times as large as the between-participant variation. Great domain specificity of risk within individuals exists: bungee jumpers have high risk-taking behaviors in the recreational field but exhibit moderate risks in the financial domain, illustrating within-subject differences across domains. Since recreational activities (e.g., bungee jumping and skydiving) have *not* been widely available to the population in China, we delete the social and recreational aspects. We focus exclusively on ethical, financial, and health/safety risk-taking attitudes and behavioral intentions appropriate for Chinese and American samples of our study.

Holistic thinking, risk-taking perceptions, and risk-taking intentions

We simultaneously explore the direct and indirect paths using our SEM model (Fig. 1). Holistic thinking adopts the big-picture orientation and enhances awareness of positive and negative consequences. Contradiction and change result in *ambivalence* (an inherent *enemy* of risk). Ambivalence encourages individuals to quit risk-taking behavior in the health/safety domain (smoking) (Choi et al., 2007). Holistic thinking differentiates two national groups (Americans vs. Koreans) and two subgroups within a culture. It predicts cross-cultural differences in the ambivalence of self-concept and self-esteem and within-cultural differences in the two dependent variables (Choi et al., 2007). Directly, holistic thinking curbs risk-taking intentions (Path 1).

Following the TPB (Ajzen, 1991), specific risk-taking attitudes predict specific risk-taking behavioral intentions. Indirectly, holistic thinking influences risk-taking attitudes by enlarging potential risks and making them saliently aware of the dangers. High holistic thinkers overestimate risk, have a heightened awareness of risk-taking perceptions, and curb risk-taking preferences. Risk-taking perceptions mediate the relationship between holistic thinking and risk-taking intentions (indirect paths, paths 2 and 3: holistic thinking → risk perceptions → risk intentions).

Hypothesis 1: *Holistic thinking negatively relates to risk-taking intentions (Path 1).*

Hypothesis 2: *Holistic thinking positively relates to risk-taking perceptions (Path 2).*

Risk-taking perceptions negatively relate to risk-taking intentions (Path 3).

Hypothesis 3: *When we combine Paths 2 and 3, the mediation effect exists.*

Moderators

Culture For Westerners, the universe consists of many independent objects (Spencer-Rodgers et al., 2004). For Easterners, intricate relationships among all elements exist. Holistic thinking *restrains* emotions, surprises, and impulsivity, reducing risk-taking intentions (Loewenstein et al., 2001; Wang et al., 2021; Weber & Hsee, 1998). East Asians are holistic, attend to the entire field, assign causality to it, make little use of categories and formal logic, and rely on dialectical reasoning. Westerners are analytic, pay attention to the objective and the groups it belongs to, and use rules to understand their behavior. Researchers have explored the differences in decision-making between holistic thinking cultures (Hong Kong Chinese) and analytic cultures (European Canadians) (Li et al., 2018).

In a study of product and process creativity, Chinese and American attribute cues such as *breakthrough*, *surprise*, and *potential* to creativity. However, cues related to *easy to use*, *feasible*, and *for a mass-market* contribute to most Chinese's assessment of creativity but not to Americans. Chinese people judge creativity using a much wider bandwidth of cues beyond novelty than their American counterparts (Loewenstein & Mueller, 2016).

In China, compared to wheat growers in the north, rice growers in the south rely more heavily on holistic thinking due to a higher demand for water and labor (Talhelm et al., 2014). Following the *cushion* hypothesis, Chinese people are more likely to receive financial help from relatives and have a higher risk-taking orientation than their American counterparts in this domain (Weber & Hsee, 1998). The danger is real, but the meaning resides in its context (Tang et al., 2008). In a 20-country study involving 3600 investors, China ranked second behind India's investor love of money (Bloomberg, 2016). Greed is bad for one's financial health (Auhers, 2016). People in emerging markets are more likely to take financial risks because they all want to be rich fast. Due to Chinese people's greedy desires and financial aspirations, moral and ethical norms have deteriorated significantly in recent decades (Leung, 2008), leading to unethical behavioral intentions and dishonesty.

Holistic thinking may reduce *impulsivity*. Impulsiveness, behaviors with little or no forethought, excites risk-taking behaviors (Wilson & Gilbert, 2008). Brazilians are more holistic than Americans and Chinese, include more context, sort objects by relationship rather than by category, and vary their emotions based on the background (De Oliveira & Nisbett, 2017). A drama movie differentially activates holistic and analytical thinkers' brains (Li et al., 2018). Analytical thinkers focus on more minor details during movie viewing and are more distinctive than holistic thinkers. In summary, the immediate and omnibus contexts shape, mold, and impact individuals' thinking styles and risk-taking attitudes and behaviors. Contexts matter.

Gender Weber et al., (2002) developed the domain-specific risk-attitude scale and suggested that "women appeared to be more risk-averse in all domains" (p. 263), revealing gender differences (Brands et al., 2022). Following prospect theory, males have higher risk-taking behaviors than females (Byrnes et al., 1999; Nicholson, 2005). Males take more risks and have increased dishonesty and risk tolerance levels than females (Tang & Chen, 2008; Tang & Chiu, 2003). Males are more likely to

take ethical risks than females. Chinese people (males) are more likely to take financial risks than their American counterparts (Bloomberg, 2016). Due to the lack of empirical evidence, we explore our formative theoretical model across moderators (cultures, genders, and cultures**genders*) on an exploratory basis and do not propose complex and specific hypotheses.

Reflective vs. formative measurement models

In a *reflective* model, we treat subconstructs (observable items) as imperfect *reflections* of the underlying latent construct. The direction of the relationship flows from the latent construct to the subconstructs (indicators-items). In a *formative* model, we consider subconstructs as distinct perspectives, defining characteristics, or formative indicators of the latent construct. The direction of the relationship moves from subconstructs to the latent construct and outcome variables. We develop a parsimonious formative theoretical model following suggestions in the literature.

Methods

Sample

Following Institutional Review Board's protocols, we recruited undergraduate university students in psychology who participated in our study for course credits and obtained their written consent. We assured their confidentiality and debriefed participants regarding the purpose of this study. We obtained cross-sectional data ($N=531$) from 284 Chinese undergraduates (male=48.6%, age=19.91, $SD=1.48$) on the East Coast and 247 American students on the West Coast (male=38.5%, age=20.16, $SD=1.72$). There was no significant difference in age between the Chinese and American samples ($t=-1.79$, $p>0.10$) (whole sample_{age}=20.02, $SD=1.60$; overall male=43.9%) (see Table 1).

Measures

Holistic thinking We translated the original scales to Chinese using the translation-back-translation procedure. Small sample sizes and model complexity result in a poor fit between the theoretical model and empirical data. It is necessary to have three items for each construct. We adopted the Analysis-Holism scale (Choi et al., 2007) and selected the top three items with the highest factor loadings. We list sample items below. Everything in the universe is somehow related to each other (causality). When a disagreement exists among people, they should search for ways to compromise and embrace everyone's opinions (contradiction). It is more important to pay attention to the whole than its parts (attention to the whole). Not every phenomenon in the world moves in a predictable direction (change). We applied a 7-point Likert-type scale with *strongly disagree* (1), *neutral* (4), and *strongly agree* (7) as anchors. We framed the latent construct of holistic thinking in the proximal

Table 1 Mean, standard deviation, Cronbach's alpha, and correlations of major variables

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Age	20.02	1.60													
2. Gender	.56	.50	-.04												
3. Culture	.47	.50	.08	.10*											
4. Causality	5.29	1.41	-.03	.03	-.39**										
5. Contradiction	4.83	1.24	-.01	.06	.15**	.15**									
6. Attention	4.67	1.17	-.00	-.02	-.12**	.28**	.28**								
7. Change	5.59	1.12	-.04	.09*	-.10*	.41**	.32**	.28**							
8. Ethical-P	4.94	1.05	.06	.10*	-.02	.13**	.11*	.06	.09*						
9. Financial-P	5.28	1.33	-.04	.10*	.04	.06	.21**	.07	.10*	.52**					
10. Health-P	5.11	1.10	-.04	.19**	.08	.09*	.12**	.03	.17**	.68**	.51**				
11. Ethical-B	2.55	.98	.04	-.13**	-.12**	-.08	-.11**	-.04	-.05	-.34**	-.15**	.26**			
12. Financial-B	2.44	1.26	.04	-.14**	-.20**	.04	-.22**	-.00	-.02	-.20**	-.38**	-.19**	-.39**		
13. Health-B	3.20	1.08	.11*	-.24**	-.07	-.06	-.07	-.05	-.09	-.15*	-.11*	-.38**	-.44**	.33**	
Cronbach's α						.87	.79	.75	.84	.79	.78	.72	.77	.77	.52

N = 531. Gender, male (0); female (1). Culture, China (0), the USA (1). We included ethical, financial, and health/safety perceptions (P) and behavioral intentions (B)

context of two unused items of causality. We listed these two items: “Any phenomenon has many causes, although some of the reasons are not known.” “Any phenomenon entails numerous consequences, although some of them may not be known.” We used these items as a control and set the tone in framing the latent construct of holistic thinking (Gentina et al., 2018a, b). The overall latent construct leads to risk-taking behavioral intentions directly and indirectly via risk-taking attitudes. We treat gender as the proximal context and cultures (China vs. the US) as the omnibus context at the country level.

Risk-taking perceptions and risk-taking intentions We adopted the domain-specific risk-taking scale (Blais & Weber, 2006) with ethical, financial, health/safety, recreational, and social risks. To reduce model complexity, we deleted the recreational and social risks. We offer a sample item for these constructs: taking some questionable deductions on your income tax return (ethical), betting a day’s income at the horse races (financial), and engaging in unprotected sex (health/safety). For risk-taking perceptions, individuals evaluated each behavior’s riskiness on a 7-point scale ranging from *not risky at all* (1) to *extremely risky* (7). Participants rated the likelihood of engaging in these behaviors for risk-taking intentions using a 7-point scale with *extremely unlikely* (1) to *extremely likely* (7). We deliberately used different anchors to avoid common method variance (CMV).

Results

Common method variance (CMV) We adopted Harman’s single-factor test to check the CMV (Podsakoff et al., 2003). We identified 60 items of interest in this study, used exploratory factor analysis (EFA), and identified 16 factors with an eigenvalue greater than one (total variance explained=65.40%). Factor 1 explained 12.98% (<50%) of the variance. These findings suggested no concerns for CMV, offering us the confidence to test our theoretical models.

Theoretical model

Table 2, Model 1, and Fig. 2 show an excellent fit ($N=531$; $\chi^2=237.118$, $df=45$, $p<0.001$, $\chi^2/df=5.269$, $IFI=0.913$, $TLI=0.872$, $CFI=0.912$, $RMSEA=0.090$, $SRMR=0.051$). Causality (path=0.51, $p<0.001$), contradiction (0.09, $p<0.05$), and change (0.32, $p<0.001$) significantly defined holistic thinking (boldface arrows and regression weights), but attention to whole was not (0.05, $p>0.05$). The holistic thinking was negatively but non-significantly related to risk-taking intentions (Path 1=-0.05, $p>0.05$). Holistic thinking was significantly related to risk-taking perceptions (Path 2=0.19, $p<0.001$) which, in turn, was significantly and negatively related to risk-taking intentions (Path 3 = -0.48, $p<0.001$). Our results supported Hypotheses 2 and 3 but not Hypothesis 1.

We employed the bootstrap procedure, selected 2000 bootstrap samples, and calculated the bias-corrected 95% confidence intervals. A path is significant if the 95%

Table 2 Results of our theoretical models, major paths, and bootstrap procedures

Model	χ^2	df	p	χ^2/df	IFI	TLI	CFI	RMSEA	SRMR	
1. Whole sample	237.118	45	.001	5.269	.913	.872	.912	.090	.051	
2. Across cultures	291.006	90	.001	3.233	.914	.872	.913	.065	.063	
3. Across genders	305.377	314	.001	3.393	.904	.856	.902	.067	.067	
4. Across C*G	397.812	180	.001	2.212	.909	.861	.906	.048	.074	
Model	Causality	Contra.	Atten.	Change	Path	Path	Path	Bootstrap procedure with 1,000 samples		
					1	2	3	1	2	
1. Model 1	.51*	.09	.05	.32*	-.05	.19*	-.48*	[-.087, .032]	[.058, .190]*	[-.487, -.298]*
2. Model 2										
China	.62*	.08*	.07	.23*	-.08	.22*	-.49*	[-.121, .021]	[.007, .231]*	[-.570, -.179]*
The US	.34*	.15	-.02	.36*	-.16*	.14*	-.45*	[-.211, -.004]*	[.023, .276]*	[-.478, -.230]*
3. Model 3										
Male	.49*	.02	.11	.38*	-.06	.14	-.48*	[-.086, .043]	[-.007, .231]	[-.640, -.156]*
Female	.53*	.14*	.00	.28*	-.05	.22†	-.43*	[-.110, .060]	[.052, .267]*	[-.694, -.163]*
4. Model 4										
C/M	.61***	.01	.12*	.27***	.02	.25*	-.52***	[-.094, .159]	[.024, .353]*	[-.969, -.225]*
C/F	.64***	.16**	-.01	.20**	-.16	.17†	-.40**	[-.236, .029]	[-.020, .310]	[-.734, -.071]*
US/M	.31***	.04	.02	.46***	-.29***	-.01	-.41***	[-.508, -.055]*	[-.349, .173]	[-.651, -.173]*
US/F	.37***	.18*	-.04	.30***	-.07	.29***	-.45***	[-.179, .064]	[.090, .420]*	[-.604, -.119]*

Sample size, N = 531. Cultures, Chinese = 284, American = 247; genders, male = 233, female = 298; cultures*gender: Chinese/male = 138, Chinese/female = 146, American/male = 95, American/female = 152. Subconstructs: causality, contradiction, attention, and change

† p < .10, * p < .05, ** p < .01, *** p < .001

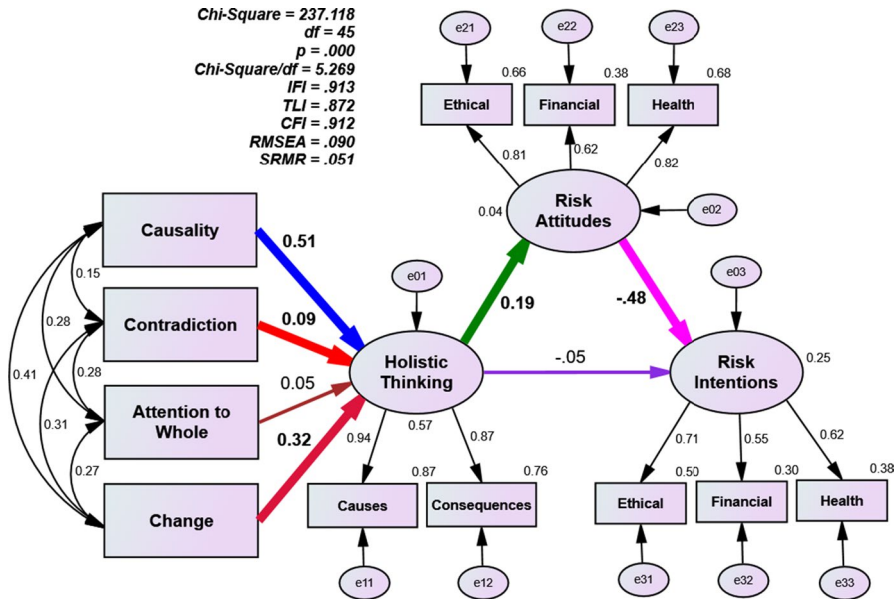


Fig. 2 Results of our theoretical model, the whole sample

confidence intervals do not cover zero (0). Our sample size was sufficient for the whole sample but small for subgroups across moderators (multiple-group confirmatory analyses, MGCFAs). Table 2 shows our results for the whole sample ($N = 531$) and subsequent MGCFAs. For the whole sample, our data (Path 1 $[-0.087, 0.032]$; Path 2 $[0.058, 0.190]$; Path 3 $[-0.487; -0.298]$) supported original findings. Holistic thinking is associated with reduced risk-taking intentions via high risk-taking attitudes awareness.

The ethical (0.81), financial (0.62), and health/safety (0.82) components contributed to the latent construct of risk-taking attitudes. The ethical (0.71), financial (0.55), and health/safety (0.62) risks contributed to the latent construct of risk-taking intentions. All correlations among the four subconstructs (causality, contradiction, attention to whole, and change) were significant but lower than 0.80, showing no construct duplication or redundancy.

Amos offers pairwise parameter comparisons for comparing direct paths. For example, Fig. 2's Path 3 (-0.48) was significantly stronger than Path 1 (-0.05) ($z = 5.759, p < 0.001$). The *standardized total impact* of holistic thinking on risk-taking intentions was -0.145 , reflecting the combination of Paths 1 (direct path) and Paths 2 and 3 (indirect paths). We provide a brief interpretation of the standardized total impact: when the holistic thinking construct increased by one standard deviation, the risk-taking preferences decreased by 0.145 standard deviations. The standardized total impact of risk-taking perceptions on risk-taking intentions was -0.483 , reflecting the direct path (Path 3). That is, when risk-taking perceptions increased by one standard deviation, the risk-taking behavioral intentions decreased by 0.483 standard deviations, illustrating a profound

impact. Both holistic thinking (-0.145) and risk-taking perceptions (-0.483) were associated with reduced risk-taking preferences. The latter was more robust than the former. Amos provides the standardized total effects of various constructs on variables. However, there is no comparison across different standardized total effects.

Across cultures

China Table 2 shows all paths for our MGCFAs across various moderators. Model 2 shows an excellent fit between our model and data across cultures (China vs. the US). Figure 3 shows the differences in paths across cultures. For the Chinese sample ($n=284$), causality (0.62 , $p<0.001$) and change (0.23 , $p=0.009$) significantly formulated holistic thinking. Contradiction and attention to the whole offered non-significant contributions to the latent construct. The direct path (Path 1) was *not* significant (-0.08 , $p=0.293$). For the indirect paths, a positive Path 2 (0.22 , $p<0.002$) and a negative Path 3 (-0.49 , $p<0.001$) were both significant, supporting Hypotheses 2 and 3.

The USA Only causality (0.37), contradiction (0.15), and change (0.39) robustly contributed to holistic thinking ($n=247$). Both the direct path (Path 1 = -0.16 , $p=0.031$) and the indirect paths were significant (Path 2 = 0.18 , $p=0.013$; Path 3 = -0.45 , $p<0.001$). Results supported Hypotheses 1, 2, and 3.

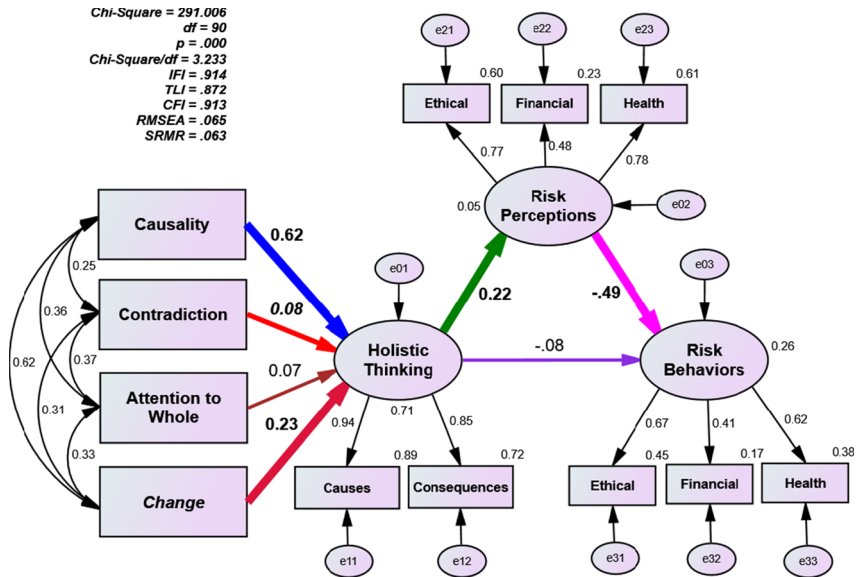
Comparing these two samples, our Path 1 was significant in the American sample (-0.16) but non-significant in the Chinese model (-0.08). The difference between the two was non-significant ($z=1.107<1.96$). Interestingly, *causality's* contribution to holistic thinking is more robust for the Chinese sample (0.62) than for the American sample (0.34) ($z=5.180$, $p<0.001$), empirically validating the literature in a brand-new revelation. The total standardized effect of holistic thinking on risk-taking intentions (direct+indirect) was slightly more substantial in the American group (-0.235) than in the Chinese group (-0.189). The reverse was true—the total effect of risk-taking perceptions on risk-taking intentions was slightly more robust in the Chinese sample (-0.491) than in the American model (-0.446). Hence, the culture (country) is a moderator.

Across genders

Male Fig. 4 shows our results across genders. For males ($n=233$), causality (0.49) and change (0.38) defined holistic thinking. The direct path (Path 1, Hypothesis 1) was non-significant (-0.06). For the indirect paths, Path 2 was non-significant (0.14 , $p<0.10$). Path 3 was significant (-0.48), supporting Hypothesis 2 partially.

Female For females ($n=298$), causality (0.53), contradiction (0.14), and change (0.28) formulated holistic thinking. The direct path (Path 1) was non-significant (-0.05). Path 2 reached significance (0.22 , $p<0.10$), and Path 3 (-0.43) was significant. Our additional bootstrap procedure suggested a new finding. In this unique incident, Path 2 has strengthened from a marginally significant level (<0.10) to a

A: China



B: The US

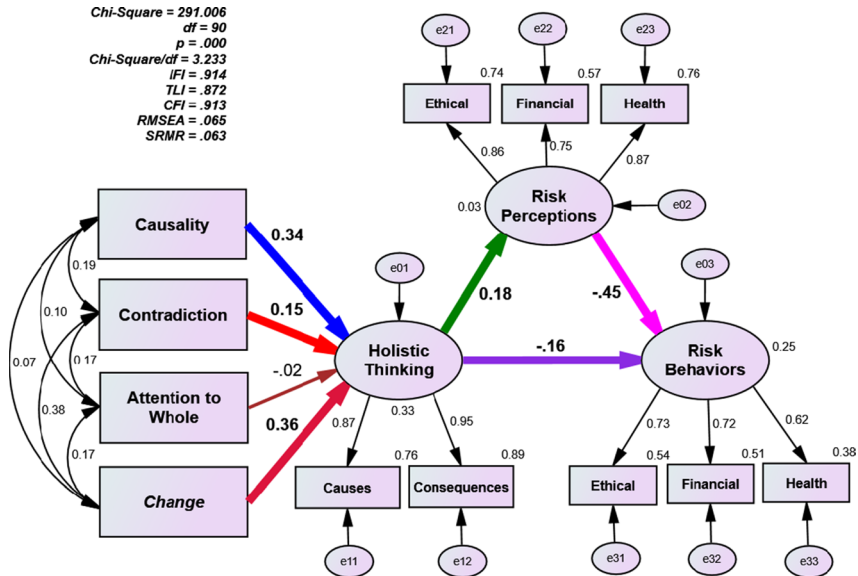
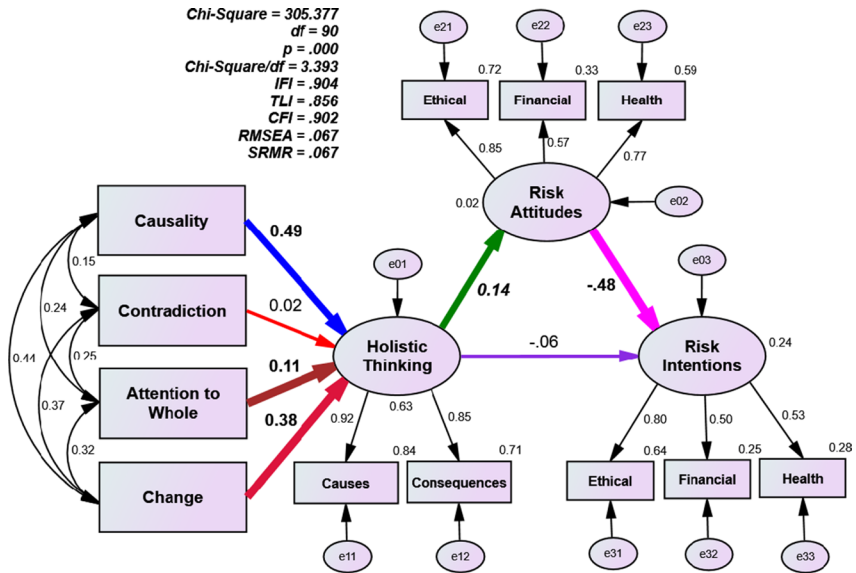


Fig. 3 Results of our theoretical model, MGCFA across cultures.

A: Males



B: Females

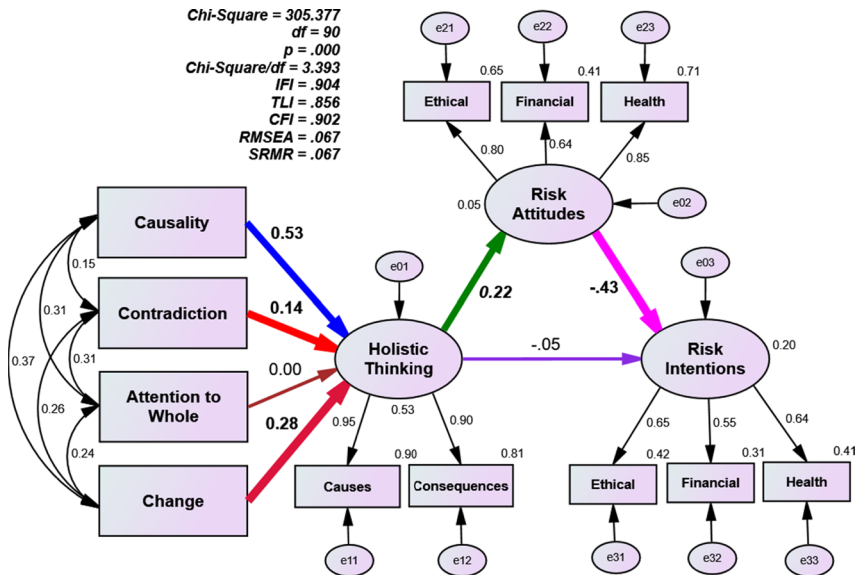


Fig. 4 Results of our theoretical model, MGCFA across genders.

significant level (Table 2) (confidence intervals [0.052, 0.267]). Our results supported Hypotheses 2 and 3 but not Hypotheses 1.

Interestingly, there was no difference in causality's contributions to holistic thinking between males (0.49) and females (0.53) ($z=0.638$, $p>0.05$). The total effect of holistic thinking on risk-taking intentions was slightly more substantial among females (-0.142) than males (-0.133). The total effect of risk-taking perceptions on risk-taking intentions was slightly stronger for males (-0.477) than females (-0.435). Gender has a minor impact on our model.

Across cultures and genders

Chinese males We have carefully curated Fig. 5, revealing our results across cultures and genders. For Chinese males ($n=138$), causality (0.61), attention (0.12), and change (0.27) formulated holistic thinking. Path 1 was *not* significant (0.02). The indirect paths were significant (Path 2=0.25; Path 3= -0.52) (Table 2). Data supported Hypotheses 2 and 3 but not Hypothesis 1.

Chinese females For Chinese females ($n=146$), only causality (0.64) and contradiction (0.16) defined holistic thinking. The direct path was non-significant (Path 1= -0.16), and the indirect paths were significant (Path 2=0.17 and Path 3= -0.40), supporting Hypotheses 2 and 3 but not Hypothesis 1.

American males For American males ($n=95$), causality (0.31) and change (0.46) made significant contributions to holistic thinking. Only Path 1 (-0.29) and Path 3 (-0.41) were significant. Results supported Hypothesis 1. We partially supported Hypothesis 2.

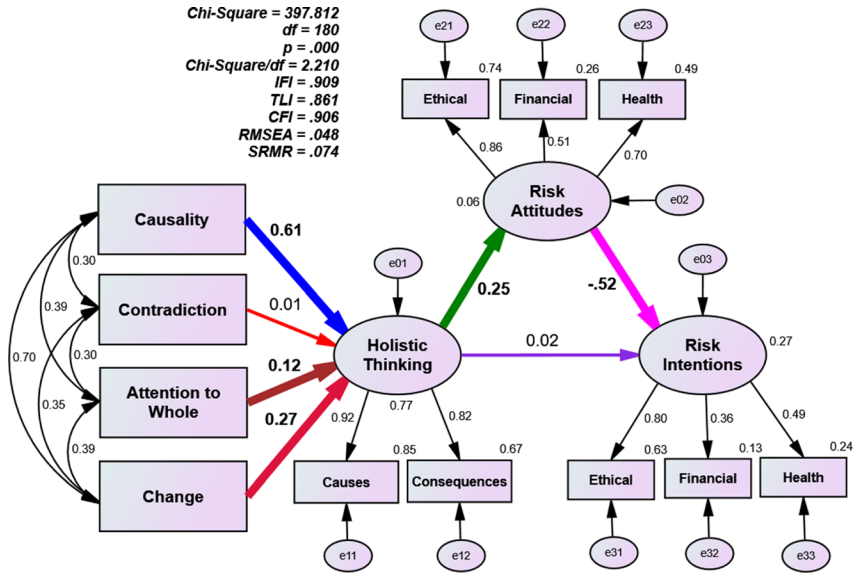
American female For American females ($n=152$), causality (0.37), contradiction (0.18), and change (0.30) defined holistic thinking. Path 1 was not significant (-0.07) and the indirect paths were significant (Path 2=0.29; Path 3= -0.45), supporting Hypotheses 2 and 3.

Holistic thinking's relationship with reduced *risk-taking intentions* was much more potent for American males (-0.29) than Chinese males (0.02) ($z=2.398$, $p<0.05$). Holistic thinking was more significantly related to *risk-taking perceptions* for American females (0.29) than American males (-0.10) ($z=2.642$, $p<0.01$). We illustrate a strong moderator (cultures*genders).

Who will benefit from holistic thinking and risk-taking perceptions the most/least?

Table 3 provides the *standardized total effects* of *holistic thinking* on risk-taking intentions (direct+indirect) in descending order as follows: American males (-0.247), Chinese females (-0.233), American females (-0.198), and Chinese males (-0.107) (Table 3). Standardized total effects of *risk-taking perceptions* on risk-taking intentions in descending order were Chinese males (-0.522), American

A: Chinese Male



B: Chinese Female

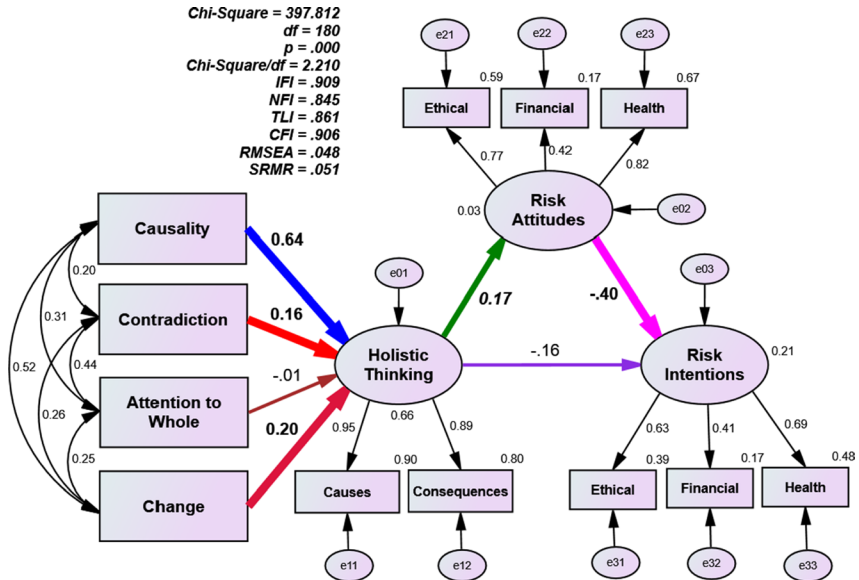
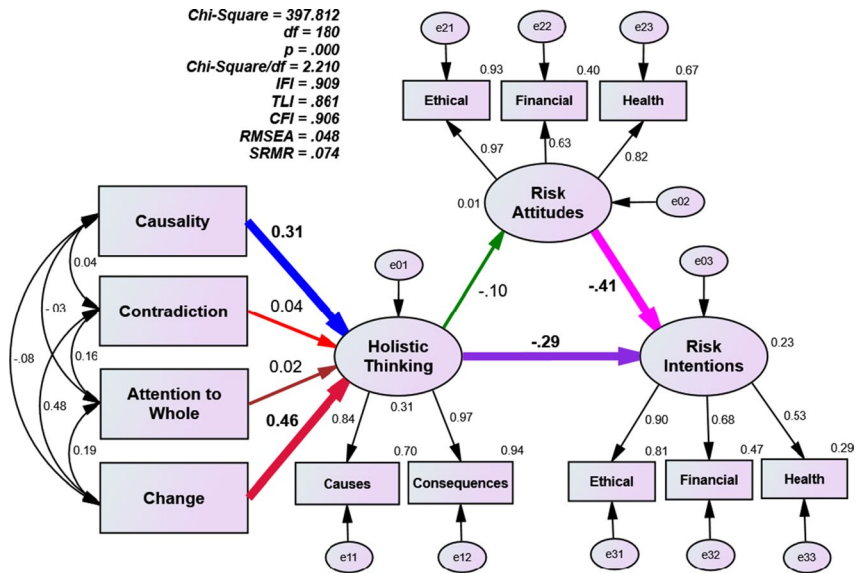


Fig. 5 Results of our theoretical model, MGCFA across cultures*genders.

C: American Male



D: American Female

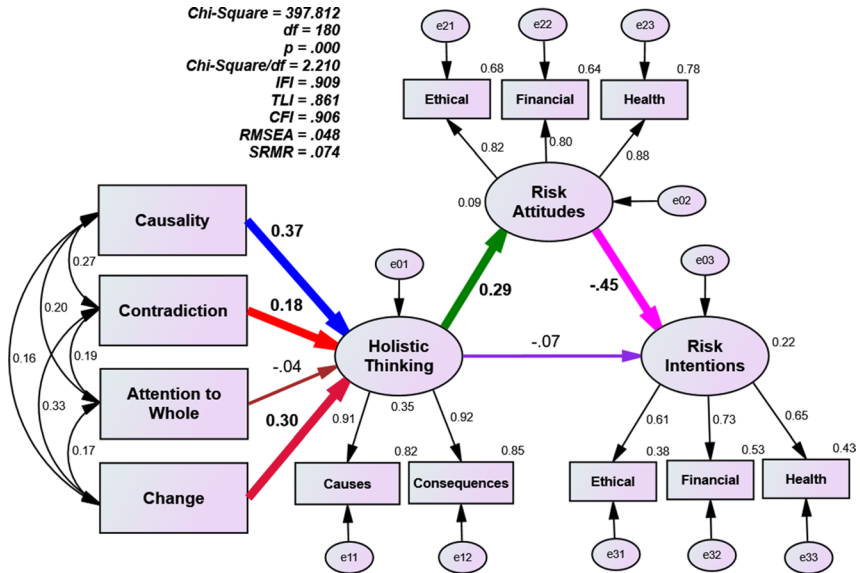


Fig. 5 (continued)

Table 3 Standardized total impact of holistic thinking and risk-taking attitudes on risk-taking behavioral intentions across cultures*genders

Variable	Holistic thinking				Risk-taking attitudes			
	Chinese		American		Chinese		American	
	Male	Female	Male	Female	Male	Female	Male	Female
Subconstructs of risk-taking behavioral intentions								
Ethical	-.085	-.146	-.222	-.122	-.415	-.251	-.370	-.276
Financial	<i>-.039</i>	-.095	-.169	-.144	<i>-.190</i>	<i>-.163</i>	-.282	-.328
Health/safety	-.052	-.162	-.132	-.129	-.254	-.277	-.221	-.294

Sample size, Chinese/male = 138, Chinese/female = 146, American/male = 95, American/female = 152

For Holistic thinking and Risk-taking attitudes, we highlight the largest standardized total impact in boldface and the smallest in boldface and italic

females (-0.450), American males (-0.412), and Chinese females (-0.401). Pair-wise parameter comparisons showed non-significant difference between Chinese males (-0.522) and Chinese females (-0.401) ($z = 1.126 < 1.96$). The path from risk intentions to ethical risks for American males was significantly stronger (the highest = 0.90) than that for American females (the lowest = 0.61) (Fig. 5) ($z = 2.108, p < 0.05$), demonstrating a significant gender difference among Americans.

We describe the highest and the lowest impacts overall: for three subconstructs, *holistic thinking* has the most significant relationship with reduced *ethical risk-taking intentions* (-0.222) for *American males* but the most negligible association with lowered financial risk-taking intentions (-0.039) for Chinese males. *Risk-taking perceptions* have the most potent association with reduced *ethical risk-taking intentions* (-0.415) for *Chinese males* but the least significant relationship with financial risk-taking preferences for Chinese (females and males), Chinese females, in particular (-0.163). Holistic thinking and risk-taking perceptions had the weakest association with reduced financial risk-taking intentions for Chinese males.

Discussion

Theoretical contributions

In this study, we explore a formative model of holistic thinking. We theorize that holistic thinking is directly associated with reduced risk-taking behavioral intentions and indirectly via risk-taking attitudes. Our results offer the following discoveries. First, we turn to the holistic thinking construct. The correlations among these four subconstructs are significant but smaller than 0.80, revealing no construction duplication. Various subconstructs contribute to the latent construct independently.

Two subcomponents—*causality and change*—are consistently related to the holistic thinking latent construct for the whole sample and across all three moderators, demonstrating a long-term perspective and the *change* orientation. In our MGCFA, *contradiction* robustly relates to holistic thinking among the Chinese sample (cultures), the female sample (genders), the Chinese female sample, and the American female sample (cultures**genders*). *Attention to the whole* is significantly related to holistic thinking for Chinese males. In short, all four subconstructs make various robust contributions to the latent holistic thinking construct depending on the contexts (moderators).

Second, we explore the direct and indirect paths. Holistic thinking directly relates to decreased risk-taking behavioral intentions. This *direct* path (holistic thinking → risk intention) prevails for American (cultures) and male American students (cultures**genders*). The *indirect* paths (holistic thinking → risk attitudes → risk intention) triumph for the whole sample, the Chinese and American samples (cultures), Chinese males, and American females (cultures**genders*). Different components of holistic thinking (antecedents) are related to high awareness of risk-taking attitudes, which, in turn, is related to reduced risk-taking preferences. The contexts matter. For the *direct* path (risk attitudes → risk intention), risk-taking perceptions are *consistently* and strongly related to reduced risk-taking intentions across all analyses. Holistic thinking and risk attitudes are related to reduced risk intentions.

Third, considering our analyses across cultures and genders, *holistic thinking* is related to reduced risk-taking intentions, with the most powerful bond for *American males' ethical risks* but the least for *Chinese males' financial risks*. However, *risk-taking attitudes–perceptions* have the strongest connection with minimized *ethical risks* for *Chinese males* but the weakest relationship with *financial risks* for *Chinese females*. Holistic thinking and risk-taking attitudes are differently related to the overall reduction of risk-taking intentions. American males have the strongest link from risk-taking behavioral intentions to ethical risks, whereas American females have the weakest, illustrating robust gender differences. This ethical concern corresponds to our opening story about Enron's corruption in the USA. Holistic thinking strongly correlates with reduced ethical risks for American males, whereas risk-taking perceptions–attitudes (awareness) are associated with curbed ethical risks for Chinese males.

In summary, we make significant contributions to the literature regarding the intricate mechanisms of holistic thinking, risk-taking perceptions, and risk-taking behavioral intentions across cultures, genders, and the combination of the two. Essential subconstructs contribute to the holistic thinking related to reduced ethical, financial, and health/safety risks directly and indirectly via higher awareness of risk attitudes. Following the theory of planned behavior, there are strong relationships between attitudes and behavioral intentions. In most cases, attitudes positively predict behavioral intentions. Since we frame risk-taking attitudes and behavioral intentions in the context of holistic thinking, the relationships between attitudes and behavioral intentions are negative in our theoretical model and across moderators. Although holistic thinking and risk attitudes can potentially reduce risk intentions, directly and indirectly, they have limits across different domain-specific risks.

Metaphorically, money is a tool and a drug (Lea & Webley, 2006). For Enron executives, money served as a drug. We may label “ethical” or “financial” risks as *money-related* risks. Both ethical and financial risks are related to money, directly and indirectly. Money is the universal language that everyone understands globally. The love of money construct (Tang & Chiu, 2003; Tang et al., 2018b, c) has several subconstructs—factors rich, motivator, important, and power: most people want to be rich. Money is a motivator. Money is important. Finally, money is power (Lemrová et al., 2014). CEOs’ ethical leadership (greed) trickles down from the top echelon to subordinates via leader–member exchange (LMX) (Al Halbusi et al., 2022). Holistic thinking is associated with the most reduced ethical risks for American males but the least *financial* risks for Chinese males.

In a 20-country study (Authers, 2016; Bloomberg, 2016), China, in the emerging markets, ranked second for investors’ love of money behind India. The USA ranked fifth. Most people want to keep up with the Joneses. Watching other people get rich quickly in the emerging markets causes most to get upset because high love-of-money individuals compare their income with the rich. When money is a drug, they want more to get the same level of “high.” Putting them in the losses domain is not an acceptable option. Gamblers risk winning, trying to get all the lost money back.

Nobel laureates Kahneman and Deaton (2010) proclaimed additional income beyond \$75,000 improves life evaluation but not emotional well-being. Scholars and MNEs must keep gross domestic product, gross national income, and human development index sustainable and protect the profits, people, the planet, and peace, which may affect individuals’ ethical, financial, and health/safety risks. Our findings provide novel and robust implications and offer real hope that we may help future Chinese and American employees, managers, and executives reduce ethical and financial risks in decision-making.

Our discoveries support the notion decision-makers select their deep-rooted personal values or cognitive executive functions (holistic thinking) and frame critical concerns in the immediate-proximal context at the individual level and distal-omnibus context at the country level to maximize expected utility and ultimate serenity (Tang, 2021). MNEs must focus on ethical leadership and enhance corporate moral values to excite honesty and creativity (Al Halbusi et al., 2022; Tang & Liu, 2012). Future scholars must explore these intricate and interesting issues empirically.

Practical contributions

Please recall that in emerging markets, China ranked the second highest in investors’ love of money (Bloomberg, 2016). Hsee and Weber (1999) used the cushion hypothesis to explain Chinese people’s risky financial, social borrowing, and business investment throughout the economy: Chinese people rely on families and friends for financial needs and emergencies. Our discoveries add fuel to the fire of this debate. In our model, holistic thinking and risky attitudes have limits in reducing male Chinese people’s high financial risks. We offer value-added contributions beyond the cushion hypothesis. In this article, our models have provided precise mechanisms on how and why holistic thinking and attitudes cannot reduce Chinese people’s risky decisions. For Chinese males, holistic thinking has the most negligible impact on

reducing *financial* risks. However, risk-taking attitudes have the most potent effect on reducing *ethical* intentions. Ethical and financial risk-taking choices are in different domains. Risk-taking perceptions are more potent than holistic thinking in reducing financial risk-taking behavioral intentions.

The difference between genius and stupidity is that genius has its limits. Some attributed this quote to Albert Einstein. According to one source, people assigned credits to Alexandre Dumas, published in French (circa 1865). “One thing that humbles me deeply is to see that human genius has its limits while human stupidity does not.” Our research supports the notion that holistic thinking has its limits.

Our results show holistic thinking’s two robust subconstructs—causality and change. Causality infers the cause-and-effect relationships in our lives. Decision-makers’ actions at one point in time impact their future outcomes and destiny—causality. The situational/environmental context changes over time. Chinese Taoism and Buddhism have focused on *karma* (因果报应). *Karma* reflects (*causality and change*) and helps religious believers actively avoid unethical behaviors, refraining from killing nature’s animals. Killing leads to rebirth in hell (Badiner, 2012).

We suspect that Samlu and Enron executives failed to apply holistic thinking’s causality and change in their decision-making. Executives’ actions at one point damaged the public trust, creating ethical, financial, and health/safety consequences, leading to execution, death, and incarceration in China and the USA. The Chinese government sacked (but not charged) the mayor, party boss, and other city officials. Some Chinese parents considered these two executed in the Sanlu scandal *scapegoats* for this state-owned enterprise.

Our stories in China and the USA reflect *karma*—executives’ actions led to consequences—a sense of *causality*. Individuals must consider not only the immediate contexts but also distal-omnibus contexts in the future. It takes time to see the consequences of the actions—the *change*. The *bottom-line mentality*, making money for themselves, and the lack of wisdom (virtue) lead to dire consequences, killing infants, damaging lives, and disrupting people’s careers.

Following the results of our analyses across the combination of cultures and genders, researchers and practitioners may consider different interventions (training programs) for males and females and people in different cultures to enhance their decision-making in ethical, financial, and health/safety domains. We offer additional *practical* and *policy* implications below:

First, holistic thinking could be an essential component of business ethics training for all students and business students, benefiting American males the most. Second, beyond holistic thinking in reducing dishonesty, mindfulness-based stress reduction (MBSR) training, rooted in Buddhism, curbs dishonesty directly and indirectly via reduced greedy desires—the love of money (Gentina et al., 2021). Third, to reduce Chinese males’ financial risks, educators may want to help them evaluate their deep-rooted avaricious monetary values and offer MBSR training programs to curb their love of money, greed, aspirations, desires, and risky financial decisions. Business students will become future managers and executives in China and the USA. Fourth, universities and MNEs apply holistic thinking and MBSR training as a part of their mission/corporate social responsibility (CSR), helping decision-makers and consumers make ethical decisions.

Finally, “the love of money is the root of all evils” (1 Timothy 6: 9–10) (Tang & Chen, 2008). “No one can serve two masters. You cannot serve God and mammon” (Matthew 6: 24). When researchers yoke God (religiosity) and mammon (love of money) as two antecedents of a latent construct (performance or humane contexts), males reduce their dishonesty by *omission*. In contrast, females increase their honesty by *commission*. The rich get richer. Religions help native Taoism and Buddhism believers in China engage in sustainable environmental behaviors, HOPE (Mo et al., 2022). Therefore, incorporating all different religions, spirituality (God), and diverse practices may help reduce dishonesty and increase honesty in decision-making. Training initiatives and resources help citizens crystalize cognitive thinking skills, set new priorities, and avoid dire consequences (destruction of corporations, public trust/health, brand equity, reputation, executions/death, and incarcerations). The rich get richer (Chaudary et al., 2022; Tang, 2021).

We ask the following question in a broader context: can average citizens apply holistic thinking in a real-life situation and resist the temptation (e.g., Enron CEO’s \$132 million)? According to the US Census Bureau, the median household income in “2020” was \$67,521. How many lifetimes does it take for a median-income citizen to make \$132 million? Assuming employees have a 40-year career life, our simplified calculations suggest that it takes *48.87 lifetimes* to earn \$132 million.⁶ Enron executives paid attention to *the highest expected utility* and threw holistic thinking and ethics out of the window. Avaricious executives engaged in dishonesty deliberately. Corruption was not an accident. Enron’s CEO, CFO, and Sanlu’s executives (without integrity, virtue, and wisdom) served “mammon” and consequently their “prison terms.” The costs outweigh the financial gains. The poor get poorer. Our study supports the Matthew Effect (Merton, 1968).

To cope with the COVID-19 pandemic, individuals must follow the CDC and health authority guidelines, obey the laws and orders, wear masks, and get vaccine shots, which may help ordinary citizens to survive in this highly challenging era but may also have its limits.⁷ Amid the COVID-19 pandemic, we ask the critical question here: “What’s Important Now (WIN) (Holtz, 2006)? Our data demonstrate that holistic thinking and risk-taking attitudes have minor impacts on health/safety risk behavioral intentions. As of August 7, 2022, 589.219 million people have contracted the COVID-19 virus. Among them, 6.436 million have died. There is a realm of time where the goal is not to have but to be” (Heschel, 1951, p. 3). We hope previous research on the differences in pro- and anti-vaccination groups (Faasse et al., 2016) and our present study may provide new perspectives in understanding and helping people cope with future pandemics and other diseases and save lives.

MNEs’ policymakers must develop corporate ethical cultures (Tang et al., 2018c), enhance holistic thinking and risk-taking attitudes, and reduce risk-taking intentions. Research in behavioral decision-making suggests that in the heat of the moment, preventing avaricious individuals and employees from falling into a trap is more

⁶ $\$132,000,000/\$67,521 = 1,954.95$ years; $1,954.95 \text{ years}/40 \text{ years} = 48.87$ lifetimes.

⁷ The 79-year old President Joe Biden, fully vaccinated with two COVID Booster shots, was tested positive for COVID-19 on Thursday July 21, 2022. From a White House balcony, Biden said, “Keep the faith, it’s going to be okay.” Thus, vaccine has its limits.

manageable than fighting *against* the temptation when individuals have already fallen deeply into a slippery slope (Ariely & Loewenstein, 2006; Sutarso et al., 2018). The World's Most Ethical Companies achieved a 4.88% *ethics premium* in 2018 (Ethisphere, 2018). It pays to be ethical. Following the Matthew effect, the rich get richer. Thaler (2018), the 2017 Nobel Prize winner, “nudges” people to make better choices and become happy, healthy, and wealthy in their lives.

Limitations and future research

Our cross-sectional design did not provide a definite cause-and-effect relationship among our constructs. We recruited undergraduate volunteers from the subject pool for course credit and did not *randomly* select participants and countries. Weber et al.'s (2002) domain-specific risk-taking scale measures risk-taking attitudes and behavioral intentions in ethical, financial, and health/safety domains. They tested items using undergraduate students and dealt with students' matters (cheating on tax ethical, betting on horse racing-financial, engaging in unprotected sex) and may have limited impacts on others. There are several critical concerns.

First, these risk-taking behaviors do not involve much money and do not significantly impact other people's money, financial resources, and lives (moral hazard, Pavlou et al., 2007). Thus, risk-taking in itself may not be that socially problematic. Second, researchers must be careful in extrapolating these items to significant issues violating essential social norms and values, e.g., taking \$100 million in kickbacks, bribery, corruption, laying employees off for personal gains, and selling company secrets. Finally, we measured only behavioral intentions, not actual behaviors. Researchers must conduct laboratory experiments to verify our robust findings, identify different constructs, and explore other cultures.

Scientists may use a longitudinal design and collect data multiple times, i.e., holistic thinking (Time 1), risk-taking perceptions (Time 2), risk-taking intentions (Time 3), and actual behaviors (Time 4). Future researchers may empirically explore additional constructs (the love of money attitude) across various cultures, religions, countries, and moderators and generalize our findings to other contexts. Scholars may *frame* holistic thinking in different contexts (e.g., the love of money) and develop multiple-level theoretical models across cultures (Tang et al., 2018b).

Conclusion

Our novel formative theoretical model offers the following innovative discoveries. For the whole sample, the indirect paths prevail—holistic thinking relates to reduced risk-taking intentions via heightened risk-taking perceptions. Across cultures, indirect paths successfully exist among Chinese people, and direct and indirect paths triumph for Americans. Causality contributes more strongly to holistic thinking for the Chinese sample than the American sample. Across genders, holistic thinking relates indirectly to females' minimized risk-taking intentions, whereas risk-taking perceptions relate to diminished males' risk-taking intentions. Across cultures and genders, holistic thinking links to reduced American males' ethical risks the most,

but Chinese males' financial risks the least. Risk-taking perceptions' most vital linkage is related to curtailed Chinese males' ethical risks but least to Chinese people's (males and females) financial risks. Holistic thinking significantly connects to more curbed American males' risk-taking intentions than Chinese males.

Further, holistic thinking's linkage to risk-taking perceptions is much more robust for American females than American males. Among four subconstructs, causality and change consistently and robustly contribute to the holistic thinking latent construct than the other two subconstructs—contradiction and attention to the whole, across various contexts. Risk-taking perceptions are more forceful than holistic thinking in linking to diminished risk-taking intentions across contexts. However, both holistic thinking and risk-taking perceptions have limits. Following monetary wisdom, decision-makers select their deep-rooted values and cognitive functions (holistic thinking, risk perceptions) and frame critical concerns (risk intentions) in a proximal-immediate context (causes and consequences) at the individual level and distal-omnibus context at the country level (China vs. the USA) to maximize expected utility and ultimate serenity. Our research on holistic thinking offers innovative theoretical and practical implications; helps people avoid dishonesty; nudges them to make ethical, healthy, happy, and wealthy decisions; and enhances their decision-making at the individual, organization-industry, and country-global levels.

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Declarations

Ethics approval and consent to participate Researchers performed all studies involving human participants following the institutional or national research committee's ethical standards, the 1964 Helsinki Declaration, and later amendments or comparable ethical standards. We obtained participant informed consent.

Competing interests The authors declare no competing interests.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211.
- Al Halbusi, H., Tang, T. L. P., Williams, K. A., & Ramayah, T. (2022). Do ethical leaders enhance employee ethical behavior? Organizational climate and justice perceptions as dual mediators and leader moral attentiveness as a moderator—Evidence from Iraq's emerging market. *Asian Journal of Business Ethics*, 11(1), 105–135.
- Amabile, T. M. (1998). How to kill creativity. *Harvard Business Review*, 76(5), 76–87.
- Amabile, T. M., Hadley, C. N., & Kramer, S. J. (2002). Creativity under the gun. *Harvard Business Review*, 80(8), 52–61.
- Ariely, D., & Loewenstein, G. (2006). The heat of the moment: The effect of sexual arousal on sexual decision making. *Journal of Behavioral Decision Making*, 19(2), 87–98.
- Authers, J. (2016). Is greed good? No, it's seriously bad for your wealth. Behavioural finance studies suggest a love of money weakens your ability as an investor. <https://www.ft.com/content/f16edc12-65d1-11e6-a08a-c7ac04ef00aa>. Accessed 9 May 2022.

- Bacha-Trams, M., Alexandrov, Y. I., Broman, E., Glerean, E., Kauppila, M., Kauttonen, J., et al. (2018). A drama movie activates the brains of holistic and analytical thinkers differentially. *Social Cognitive and Affective Neuroscience*, *13*(12), 1293–1304.
- Badiner, A. H. (Ed.). (2012). *Dharma Gaia: A harvest of essays in Buddhism and ecology* (pp. xiv–xv). Parallax Press.
- BBC News. (2009). China executes two over tainted milk powder scandal. <http://news.bbc.co.uk/1/hi/world/asia-pacific/8375638.stm>. Accessed 9 May 2022.
- Blais, A. R., & Weber, E. U. (2006). A domain-specific risk-taking (DOSPERT) scale for adult populations. *Judgment and Decision Making*, *1*, 33–47.
- Bloomberg. (2016). <http://www.bloomberg.com/news/videos/2016-08-10/investors-love-of-money-can-t-buy-riches-here-s-why>. Accessed 9 May 2022.
- Brands, R., Ertug, G., Fonti, F., & Tasselli, S. (2022). Theorizing gender in social network research: What we do and what we can do differently. *Academy of Management Annals*, *16*(2), 588–620.
- Brauch, M., & Größler, A. (2022). Holistic vs. analytic thinking orientation and its relationship to the bullwhip effect. *System Dynamics Review*. <https://doi.org/10.1002/sdr.1702>.
- Byrnes, J. P., Miller, D. C., & Schafer, W. D. (1999). Gender differences in risk taking: A meta-analysis. *Psychological Bulletin*, *125*(3), 367–383.
- Chaudary, S., Zaar, S., & Tang, T. L. P. (2022). Investor financial aspirations excite investment decisions: Current income, future inheritance expectations, and short-term, and long-term decisions—The Matthew Effect in Pakistan’s emerging markets. *International Journal of Emerging Markets*. <https://doi.org/10.1108/IJOEM-07-2021-1098>
- 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, J. Q., Wang, L., Huang, M., & Spencer-Rodgers, J. (2012). Naïve dialecticism and Chinese employees’ commitment to change. *Journal of Managerial Psychology*, *27*(1), 48–70.
- Choi, I., & Nisbett, R. (1998). Situational salience and cultural differences in the correspondence bias and actor-observer bias. *Personality and Social Psychology Bulletin*, *24*(9), 949–960.
- Choi, I., & Nisbett, R. E. (2000). Cultural psychology of surprise: Holistic theories and recognition of contradiction. *Journal of Personality and Social Psychology*, *79*, 890–905.
- Choi, I., Koo, M., & Choi, J. A. (2007). Individual differences in analytic versus holistic thinking. *Personality and Social Psychology Bulletin*, *33*, 691–705.
- De Oliveira, S., & Nisbett, R. E. (2017). Beyond east and west: Cognitive style in Latin America. *Journal of Cross-Cultural Psychology*, *48*(10), 1544–1577.
- Ethisphere. (2018). Leading practices and trends from the 2018 World’s Most Ethical Companies. <https://bela.ethisphere.com/wp-content/uploads/leading-practices-and-trends-from-the-2018-wmec.pdf>. Accessed 9 May 2022.
- Exadaktylos, F., Espin, A. M., & Branas-Garza, P. (2013). Experimental subjects are not different. *Scientific Reports*, *3*, 1213.
- Faasse, K., Chatman, C. J., & Martin, L. R. (2016). A comparison of language use in pro- and anti-vaccination comments in response to a high profile Facebook post. *Vaccine*, *34*, 5808–5814.
- Fisman, R., & Miguel, E. (2007). Corruption, norms, and legal enforcement: Evidence from diplomatic parking tickets. *Journal of Political Economy*, *115*, 1020–1048.
- Förster, J., Epstude, K., & Özelsel, A. (2009). Why love has wings and sex has not: How reminders of love and sex influence creative and analytic thinking. *Personality and Social Psychology Bulletin*, *35*(11), 1479–1491.
- Gentina, E., Daniel, C., & Tang, T. L. P. (2021). Mindfulness reduces avaricious monetary attitudes and enhances ethical consumer beliefs: Mindfulness training, timing, and practicing matter. *Journal of Business Ethics*, *173*, 301–323.
- Gentina, E., Tang, T. L. P., & Dancoine, P. F. (2018a). 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.
- Gerhart, B. (2023). *Compensation* (14th ed.). McGraw-Hill Education.
- Gino, F., & Ariely, D. (2012). The dark side of creativity: Original thinkers can be more dishonest. *Journal of Personality and Social Psychology*, *102*(3), 445–459.

- Gino, F., & Wiltermuth, S. S. (2014). Evil genius? How dishonesty can lead to greater creativity. *Psychological Science*, 25(4), 973–981.
- Grant, A. (2016). *Originals: How non-conformists move the world*. Penguin Books.
- 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.
- Hanoch, Y., Johnson, J. G., & Wilke, A. (2006). Domain specificity in experimental measures and participant recruitment: An application to risk-taking behavior. *Psychological Science*, 17(4), 300–304.
- Heschel, A. (1951). *The Sabbath: Its meaning for modern man*. Farrar, Straus and Giroux.
- Holtz, L. (2006). *Wins, losses, and lessons: An autobiography*. HarperCollins.
- Hsee, C. K., & Weber, E. U. (1999). Cross-national differences in risk preference and lay predictions. *Journal of Behavioral Decision Making*, 12, 165–179.
- Huang, Y. (2014). The 2008 milk scandal revisited. <https://www.forbes.com/sites/yanzhonghuang/2014/07/16/the-2008-milk-scandal-revisited/?sh=29187d0a4105>. Accessed 9 May 2022.
- Ji, L. J., Peng, K., & Nisbett, R. E. (2000). Culture, control, and perception of relationships in the environment. *Journal of Personality and Social Psychology*, 78, 943–955.
- 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.
- Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux.
- Kahneman, D., & Deaton, A. (2010). High income improves evaluation of life but not emotional well-being. *Proceedings of the National Academy of Sciences of the United States of America*, 107(38), 16489–16493.
- Kahneman, D., & Tversky, A. (1984). Choice, values, and frames. *American Psychologist*, 39(4), 241–350.
- Karakas, F. (2011). Positive management education: Creating creative minds, passionate hearts, and kindred spirits. *Journal of Management Education*, 35(2), 198–226.
- Kish-Gephart, J. J., Harrison, D. A., & Treviño, L. K. (2010). Bad apples, bad cases, and bad barrels: Meta-analytic evidence about sources of unethical decisions at work. *Journal of Applied Psychology*, 95, 1–31.
- Laws, J., & Tang, T. L. P. (1999). Japanese transplants and union membership: The case of Nissan Motor Manufacturing Corporation. *SAM Advanced Management Journal*, 64(2), 16–26.
- Lea, S. E. G., & Webley, P. (2006). Money as tool, money as drug: The biological psychology of a strong incentive. *Behavioral and Brain Sciences*, 29, 161–209.
- 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.
- Leung, K. (2008). Chinese culture, modernization, and international business. *International Business Review*, 17, 184–187.
- Li, L. M. W., Masuda, T., & Russell, M. J. (2015). Culture and decision-making: Investigating cultural variations in the East Asian and North American online decision-making process. *Asian Journal of Social Psychology*, 18(3), 183–191.
- Li, L. M. W., Masuda, T., Hamamura, T., & Ishii, K. (2018). Culture and decision making: Influence of analytic versus holistic thinking style on resource allocation in a fort game. *Journal of Cross-Cultural Psychology*, 49(7), 1066–1080.
- Li, X., Li, Y., Wang, X., Bai, H., & Hu, W. (2022). Affective valence moderates the influence of thinking style on insight problem solving: Electrophysiological evidence. *Biological Psychology*, 170, 108317. <https://doi.org/10.1016/j.biopsycho.2022.108317>
- Loewenstein, J., & Mueller, J. (2016). Implicit theories of creative ideas: How culture guides creativity assessments. *Academy of Management Discoveries*, 2(4), 320–348.
- Loewenstein, G. F., Weber, E. U., Hsee, C. K., & Welch, N. (2001). Risk as feelings. *Psychological Bulletin*, 127, 267–286.
- Masuda, T., & Nisbett, R. E. (2001). Attending holistically versus analytically: Comparing the context sensitivity of Japanese and Americans. *Journal of Personality and Social Psychology*, 81, 922–934.
- Merton, R. K. (1968). Matthew effect in science. *Science*, 159(3810), 56–63.
- Mo, Y. L., Zhao, J. Y., & Tang, T. L. P. (2022). Religious beliefs inspire sustainable HOPE (Help Ourselves Protect the Environment): Culture, religion, dogma, and liturgy—The Matthew Effect in religious social responsibility. *Journal of Business Ethics*. <https://doi.org/10.1007/s10551-022-05131-z>.

- Monga, A. B., & John, D. R. (2006). Cultural differences in brand extension evaluation: The influence of analytic versus holistic thinking. *Journal of Consumer Research*, *33*, 529–536.
- Morris, M. W., & Peng, K. (1994). Culture and cause: American and Chinese attributions for social and physical events. *Journal of Personality and Social Psychology*, *67*, 949–971.
- Nicholson, N. (2005). Personality and domain-specific risk taking. *Journal of Risk Research*, *8*(2), 157–176.
- Nisbett, R. E., & Masuda, T. (2003). Culture and point of view. *Proceedings of the National Academy of Sciences of the United States of America*, *100*(19), 11163–11170.
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, *108*, 291–310.
- Özbek, M. F., Yoldash, M. A., & Tang, T. L. P. (2016). Theory of justice, OCB, and individualism: Kyrgyz citizens. *Journal of Business Ethics*, *137*(2), 365–382.
- Pavlou, P. A., Liang, H., & Xue, Y. (2007). Understanding and mitigating uncertainty in Online exchange relationships: A principal-agent perspective. *MIS Quarterly*, *31*(1), 105–136.
- 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.
- Popham, L. E., Kennison, S. M., & Bradley, K. I. (2011). Ageism, sensation-seeking, and risk-taking behavior in young adults. *Current Psychology*, *30*(2), 184–193.
- Preisz, A. (2019). Fast and slow thinking: And the problem of conflating clinical reasoning and ethical deliberation in acute decision-making. *Journal of Paediatrics and Child Health*, *55*(6), 621–624.
- Spencer-Rodgers, J., & Peng, K. P. (2018). *The psychological and cultural foundations of East Asian cognition: Contradiction, change, and holism*. Oxford University Press.
- Spencer-Rodgers, J., Peng, K. P., Wang, J., & Hou, Y. B. (2004). Dialectical self-esteem and east-west differences in psychological well-being. *Personality and Social Psychology Bulletin*, *30*, 1416–1432.
- Sutarso, T., Tang, T. L. P., Anerin, D. R., McCartt, I. W. S., & Gibson, C. B. (2018). Sexual temptation: Substance abuse, no sex, safe sex, risky sex, and STDs. *International Journal of Adolescent Medicine & Health*, *30*(5). <https://doi.org/10.1515/ijamh-2016-0101>
- Talhelm, T., Zhang, X., Oishi, S., Shimin, C., Duan, D., Lan, X., & Kitayama, S. (2014). Large-scale psychological differences within China explained by rice versus wheat agriculture. *Science*, *344*(6184), 603–608.
- Tang, T. L. P. (1992). The meaning of money revisited. *Journal of Organizational Behavior*, *13*, 197–202.
- Tang, T. L. P. (2021). The Matthew effect in monetary wisdom. *Asian Journal of Business Ethics*, *10*(2), 153–181.
- 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*, 1–26.
- 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*, 13–30.
- 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., Chen, Y. J., & Sutarso, T. (2008). Bad apples in bad (business) barrels: The love of money, Machiavellianism, risk tolerance, and unethical behavior. *Management Decision*, *46*(2), 243–263.
- Tang, T. L. P., Kim, J. K., & O'Donald, D. A. (2000). Perceptions of Japanese organizational culture-employees in non-unionized Japanese-owned and unionized US-owned automobile plants. *Journal of Managerial Psychology*, *15*(6), 535–559.
- Tang, N. Y., Chen, J. Q., Zhang, K., & 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., 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.

- Triandis, H. C., Bontempo, R., Villareal, M. J., Asai, M., & Lucca, N. (1988). Individualism and collectivism: Cross-cultural perspectives on self ingroup relationships. *Journal of Personality and Social Psychology*, *54*(2), 323–338.
- Thaler, R. H. (2018). Nudge, not sludge. *Science*, *361*(6401), 431. <https://doi.org/10.1126/science.aau9241>
- Tu, L. L., & Pulling, C. (2018). Penny wise and pound foolish? How thinking style affects price cognition. *Marketing Letters*, *29*(2), 261–273.
- Wang, Z. D., Wang, Y. M., Li, K., Shi, J., & Wang, F. Y. (2021). The comparison of the wisdom view in Chinese and Western cultures. *Current Psychology*. <https://doi.org/10.1007/s12144-020-01226-w>.
- Weber, E. U., & Hsee, C. (1998). Cross-cultural differences in risk perception, but cross-cultural similarities in attitudes towards perceived risk. *Management Science*, *44*, 1205–1217.
- Weber, E. U., Blais, A. R., & Betz, N. E. (2002). A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *Journal of Behavioral Decision Making*, *15*, 263–290.
- Wilson, T. D., & Gilbert, D. T. (2008). Explaining away: A model of affective adaptation. *Perspectives on Psychological Science*. <https://doi.org/10.1111/j.1745-6924.2008.00085.x>.
- Xia, W., Li, L. M. W., & Li, M. (2021). Holistic thinking and emotional variability across environments. *Current Psychology*. <https://doi.org/10.1007/s12144-021-02398-9>.
- Xu, X., Xia, M., & Pang, W. (2022). Do all roads lead to Rome? Authenticity, openness to experience, and risk-taking related to general and malevolent creativity differently. *Current Psychology*.
- Yoon, S. (2013). Do negative consumption experiences hurt manufacturers or retailers? The influence of reasoning style on consumer blame attributions and purchase intention. *Psychology & Marketing*, *30*(7), 555–565.
- Zhang, Y., Waldman, D. A., Han, Y. L., & Li, X. B. (2015). Paradoxical leader behaviors in people management: Antecedents and consequences. *Academy of Management Journal*, *58*, 538–566.
- Zhang, Y., Zhang, Y., Law, K. S., & Zhou, J. (2022). Paradoxical leadership, subjective ambivalence, and employee creativity: Effects of employee holistic thinking. *Journal of Management Studies*, *59*(3), 695–723.

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