

AGENCY BELIEFS MEDIATE TRUST ACROSS CULTURES IN E-COMMERCE

BY

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DISSERTATION

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ABSTRACT

Past research has identified differences in trust judgement between Western and Eastern cultures. In addition, some studies have shown that trust can be established through the trustee's personal reputation of integrity, or through structural assurance mechanisms such as social monitoring and sanctioning. Nonetheless, the relative importance of personal versus structural cues in trust judgement across cultures is not clear. The present thesis examined cultural differences in the relative importance of personal and structural trust cues in trust judgement in the socially and economically relevant context of e-commerce. Results from 4 studies revealed that Americans prefer using personal integrity in trust judgement, whereas Asians prefer structural cues (Studies 1 and 2). Furthermore, these cultural differences can be explained by relative prevalence of the two types of agency beliefs, individual versus group agency across cultures (Studies 3 and 4).

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TABLE OF CONTENT

| | |
|--|----|
| I. INTRODUCTION | 1 |
| I.1 Individual integrity and social monitoring | 3 |
| I.2 Cultural differences in trust | 5 |
| I.3 Cultural lay beliefs of agency | 8 |
| I.4 Trust in e-commerce | 10 |
| I.5 Summary of contributions | 11 |
| II. EMPIRICAL EVIDENCE | 12 |
| II.1 Overview of studies | 12 |
| II.2 Study 1 | 12 |
| II.3 Study 2 | 18 |
| II.4 Study 3 | 22 |
| II.5 Study 4 | 27 |
| III. GENERAL DISCUSSION | 32 |
| III.1 Summary of results | 32 |
| III.2 Implications for trust research | 33 |
| III.3 Implications for cross-cultural research | 34 |
| III.4 Implications for trust in ecommerce | 35 |
| III.5 Implications for future research | 36 |
| III.6 Conclusion | 37 |
| REFERENCES | 38 |

I. INTRODUCTION

The objectives of the present investigation are (1) to test if there are differences between people from North American and East Asian cultures in their trusting intentions in an e-commerce context and, (2) to explain such differences in terms of people's endorsement of individual versus group agency in American and Chinese cultures.

Trust, defined as the “[p]sychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviors of another” (Rousseau et al., 1998, p. 395), is a lubricant that smoothens social interactions and economic transactions (Arrow, 1971; Berry, 1996; Macneil, 1980). For one party (the trustor) to trust another (the trustee), four conditions must be met. First, the trustor is willing to be vulnerable to the actions of the trustee. Second, the trustor is confident that the trustee will behave in a way beneficial to the trustor. Third, the trustor realizes that there is a risk of harm to the trustor if the trustee breaks the psychological contract implicated in a trust relationship. Finally, the trustor does not have complete control over the actions the trustee will perform (Mayer, Davis, & Schoorman, 1995; McKnight & Chervany, 2002; Rousseau, 1998).

Moreover, trust involves a psychological contract, which could be implicit, explicit and informal, or explicit and formal, should be distinguished from interpersonal reliance, which does not involve a psychological contract. Trust can be betrayed but reliance can only be disappointed (Baier, 1986). For example, people may rely on their alarm clock to wake them up for an early business morning, but will not feel betrayed by it if the alarm does not sound. However, a consumer who trusts that the seller will deliver the paid goods in good condition will feel that their trust is betrayed when the seller fails to do so.

Given the centrality of psychological contract in a trust relationship, not surprisingly, research has examined the factors that strengthen or weaken people's confidence in the psychological contract involved in a trust relationship. As the foregoing analysis of the concept of trust entails, there are three major categories of variables that could affect trust judgment: (a) characteristics of the trustor (who is more trusting?), (b) characteristics of the trustee (who is more trustworthy?), and (c) institutional structure that assures the trusting relations (what structure has been instituted to regulate the behaviors of the trustee?).

With respect to trustor's characteristics, past research has examined the intrapersonal characteristics of the trustor when making trust decision, including the brain chemistry (e.g., application of oxytocin; Kosfeld, Heinrichs, Zak, Fischbacher, & Fehr, 2005), personality traits (e.g., calmness or low levels of trait anxiety; Fahr & Irlenbusch, 2008), emotions (e.g., gratitude; Dunn & Schweitzer, 2005), and trusting beliefs (White, 2005). With respect to trustee's characteristics, research has shown that the benevolence, integrity, ability, and other individual characteristics (Mayor, Davis & Schorman, 1995; Rosseau, Sitkin, Burt & Camerer, 1998) can affect the trustor's trusting intention. With respect to institutional assurance, researchers have investigated how interpersonal relations and reputation monitoring as institutional constraints on the trustee's actions can increase the trustor's trusting intentions. (Yamagishi & Yamagishi, 1994)

The present investigation builds on this literature and argues that the amount of trust a trustor has in a trustee is a function of the characteristics of the trustor (the culture the trustor belongs to and the cultural beliefs the trustor subscribes to), the characteristics of trustee (whether the trustee has a record of personal integrity), and the presence of institutional constraints (whether a formal or informal structure of social monitoring has been instituted to regulate the behaviors of the trustee). The basic argument is that the trustor can use both the personal integrity of the trustee and

the presence of formal or informal social monitoring mechanisms as conditions to establish trust in the trustee. However, the relative importance of these two trust-establishing condition depends on the culture the trustor has been socialized into as well as the cultural beliefs the trustor endorses.

The structure of the present thesis is as follows. In this chapter, I will provide the theoretical context of the present investigation, starting with a discussion on personal integrity and social monitoring as two major trust-establishing conditions (Section I.1). Next, I will review pertinent results from past research that lead to differential emphasis of the two different trust-establishing conditions across American and Asian cultures. That is, compared to each other, Americans rely on personal integrity cues of the seller more and Asians on social monitoring cues more when judging the trustworthiness of a seller (Section I.2). In the next section (Section I.3), I will connect this cultural difference to the shared beliefs about agency in Asian and American cultures, arguing that Americans' emphasis on individual integrity cues and Asians' emphasis on social monitoring cues arise in part from the wider acceptance of personal agency in American culture and group agency in Asian culture. The context of the present investigation focuses on the application of my proposed model in the context of e-commerce. Therefore, I close Section I with a discussion of the significance in explaining trust in e-commerce (Section I.4). Next, I will report four studies that tested my hypotheses in the next section (Section II), and discuss the theoretical, practical and future research implications of my results in the final section (Section III).

I.1 Individual integrity and social monitoring

Based on a comprehensive review of trust theories, McKnight and Chervany (2002) identified two major trust-establishing conditions, institution-based trust and trustee-based trust. Institution-based trust refers to trust constructed on the presence and reliability of structural assurance. For example, in e-commerce, consumers develop institution-based

trust on the basis of structural assurance (e.g., monitoring of seller reputation) and the situational normality of the Web. Institutional-based trust is situation-specific. In e-commerce, consumers develop trust in the marketplace because of the presence and reliable implementation of structural assurance in the online marketplace and would lose faith in the marketplace when structural assurance cannot be reliably implemented.

Yamagishi and Yamagishi (1994) posit that *social monitoring* is a major institutional constraint that establishes the trustor's "trust" in the trustee. According to this view, individuals living in a tightly controlled institution have little room to exercise their own preferences. Institution will sanction deviant behaviors through a social monitoring system, in which people monitors each other's behaviors and sanction deviant behaviors. Therefore, in a tightly regulated system that has instituted a reliable social monitoring mechanism, trust is not necessary. Rather, the exhibition of "trust" between individuals is merely a reflection of the effective enforcement of the social norms within the system.

The second type of trust is trustee-based trust. This type of trust is based on the trustee's integrity, which in turn builds on a reliable past record (or reputation) of the trustee's ability to act in a benevolent manner toward the trustor. Unlike institution-based trust, which is structure- and situation-specific, trustee-based trust is person-specific and stable across situations. Trustee-based trust is linked to the perceived competence, benevolence, integrity and predictability of the trustee (Doney & Cannon, 1997; Mayer, et al., 1995; Schlosser, White, Loyld, 2006; White, 2005). In e-commerce, a trustworthy seller will be trusted in different online marketplaces. One strategy for establishing consumer trust in online marketing is to highlight the trustworthiness of the sellers in the marketplace and to give consumers easy access to the integrity cues of its sellers (McKnight & Chervany, 2002).

I.2 Cultural differences in trust

The culture the trustor is socialized into has important impact on the trustor's behaviors. For example, a cross-national survey shows that compared to the Japanese, Americans are more trusting of other people in general (Yamagishi & Yamagishi, 1994).

More importantly, as mentioned in Section I.1, personal integrity and social monitoring are two major trust-establishing conditions. There is research showing that Americans and Asians differ in their relative reliance of these two conditions in trust judgment. For example, Yamagishi and Yamagishi (1994) found that Americans consider the personal reputation of the trustee to be more important for interpersonal trust, and consider themselves more honest and fair. In contrary, the Japanese emphasize personal relations more as a way to establish interpersonal trust (Yamagishi & Yamagishi, 1994; see also Foddy, Platow, & Yamagishi, 2009; Jin, Yamagishi, & Kiyonari, 1996).

In addition, relative to Americans, Asians rely on social relations more when deciding who they will trust (Ferrin & Gillespie, 2010; Yuki, Maddux, Brewer, Takemura, 2005). For example, in a study that used hypothetical scenarios and an online game to measure trust, Yuki and colleagues (2005) consistently found that compared to each other, the Japanese trusted a target in their relational network more while Americans trusted a target in their own social category more. Specifically, compared with Americans, the Japanese trusted their in-group members and out-group strangers in their relational network to the same extent. In contrast, Americans trusted their in-group members only (but not out-group strangers in their relational network).

Yamagishi and colleagues (Yamagishi, Jin, & Miller, 1998; Yamagishi & Yamagishi, 1994) provide a possible explanation for this cross-cultural difference: The Japanese rely on relational network when deliberating their trusting intentions because the network an individual embedded in is also a social control mechanism that serves to monitor and

sanction deviant behaviors and hence reduces the perceived uncertainty in interpersonal transactions. Specifically, established social monitoring mechanisms have been instituted in tight societies to regulate and sanction deviant actions (Yamagishi et al., 1993). Therefore, individuals in a tight society do not have to rely on trust to manage social uncertainty. In such societies, individuals trust others because they trust the social control or monitoring system in the society.

One implication of the social control explanation is that the Japanese would trust people in their social network to be benevolent to other people in the network only when the group can monitor the individual's actions (Foddy, et al., 2009). This implication has received consistent support from experimental studies (Jin, Yamagishi, & Kiyonari, 1996; Jin & Tanaka, 2009; Karp, Yamagishi, & Shinotsuka, 2003; Yamagishi, Kanazawa, Mashima, & Terai, 2005).

The shared belief in Japan that others would be benevolent to in-group members only when the social monitoring system can be enforced may be a valid social expectation. For instance, the Japanese exhibit ingroup favoritism in reward allocation even when the outgroup member has more positive reputation than does the ingroup member. However, when the group cannot monitor the behaviors of the allocator as when the group identity of the reward allocator is hidden from the reward recipients, the Japanese reward allocator no longer exhibits in-group favoritism and allocates reward based on the reputation of the recipients only (Foddy et al., 2009).

In short, consistent results from the cross-cultural difference in the trust literature highlight the relative importance of personal reputation of the trustee for establishing trust among Americans (Doney & Cannon, 1997; Mayer, et al., 1995; Morgan & Hunt, 1994; Schlosser, et al., 2006; Sitkin & Roth, 1993; White, 2005), and the relative importance of personal relations and social monitoring for establishing trust among Asians (Yamagishi & Yamagishi, 1994).

In the domain of e-commerce, the real life business predicament of EachNet (a eBay subsidiary in China) with its rivalry Taobao underscores the importance of distinguishing institution-based trust from seller-based trust in e-commerce (McKnight & Chervany, 2002). This case also illustrates the importance of understanding the consumer's perceptions of trustworthiness and their cross-cultural variations. In 2003, EachNet, an online auctioneering site, was set up by eBay to capture the emerging online buyer-seller market in China; their competitor, China based TaoBao also started similar auctioneering online market at the same time period. After only a short period of time, EachNet failed while its competitor TaoBao grew exponentially (Cramptom, 2011). A major distinction between the two online marketplaces is that eBay in the US focuses on establishing the seller integrity as a part of its reputation-based system to cultivate the buyer's trust in *the seller*. In contrast, TaoBao (eBay competitor) in China focuses on constructing a social monitoring and sanctioning system to keep the seller's actions in bounds, which in turn strengthens the buyer's confidence in *the marketplace* itself independent of the reputation of individual sellers.

The present investigation seeks to extend past findings on cross-national differences in trust judgment and test whether cross-cultural differences between Americans and Asians are present in the relative emphasis on personal versus institutional factors in trust. Based on the literature reviewed in this section, I propose the following hypotheses:

Hypothesis 1a: Americans would use individual integrity cues more than they do personal relations and social monitoring cues to evaluate the trustworthiness of the trustee.

Hypothesis 1b: Asians would rely on personal relations and social monitoring cues more than on individual integrity cues to evaluate the trustworthiness of the trustee.

These hypotheses are illustrated in Figure 1. Furthermore, I propose that these cross-cultural differences are mediated by the differential endorsement of group versus individual agency in the two cultures, as illustrated by the middle section of Figure 1. Next, I will elaborate on the group versus individual agency beliefs.

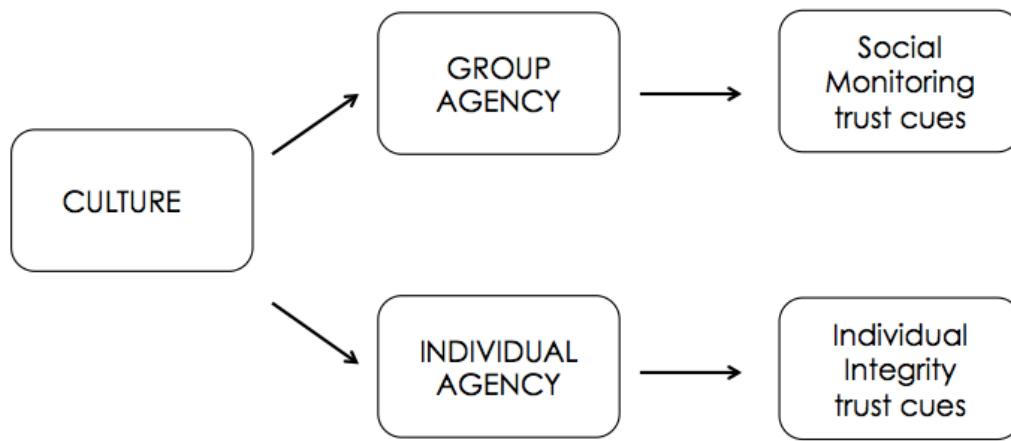


Figure 1. A model of culture, agency and trust in e-commerce

I.3 Cultural lay beliefs of agency

Agency refers to the ability to act with an intention to produce a particular result (Soanes & Stevenson, 2008) and the capability to initiate actions that intentionally guide them toward a particular goal (Rychlak, 2008). Agentic social beings are guided by goals and are responsible for the consequences of their own actions regardless of whether the consequences are positive or negative (Abelson, Dasgupta, Park, & Banaji, 1998; Hamilton, Sherman, & Lickel, 1998; Yzerbyt, Castano, Leyens, & Paladino, 2000).

Americans extol the autonomous agency of the individual and believe that the individual is the primary locus of agency. However, there are cross-cultural variations in this construction of agency. Whereas European Americans view individuals as more agentic than groups, Asians view individuals and groups to possess similar levels of agency (Kashima, et al., 2005). When asked to explain behavioral outcomes (Menon, Morris, Chiu, & Hong, 1999), and when asked to assign responsibility for an individual's behaviors (Chao, 2008), European Americans focus on the individual, believing that the individual is the primary cause of behaviors and should, therefore be held responsible for their consequence. In contrast, Asians focus on the social group the individual belongs to, believing that the shared objectives or characteristics of the group could have facilitated or prevented the individual's behaviors.

The high relative endorsement of individual agency beliefs in American culture

suggests that Americans tend to believe whether a trustee would relate to the trustor with predictable benevolence depends primarily on the moral volition or qualities of the trustee. In the context of e-commerce, Americans may be driven by their culturally shared belief in individual agency to believe that the trustworthiness of an online marketplace is as good as the integrity of the traders in the marketplace.

In contrast, Asians, who privilege group agency, may believe that social forces are the primary drivers of individual behaviors; individuals comply with social expectations, regardless of whether they do so unconsciously or consciously, and freely or unwillingly. In the presence of strong social forces (such as effective social monitoring in a tight social network), even individuals with malevolent intentions must relate to others in the network with expected benevolence or they face ostracism. Thus, under the influence of group agency belief, Asians may perceive relational and social monitoring cues to be more predictable of trustee benevolence than personal integrity cues. In contrast, Americans, who do not believe strongly in group agency, would not perceive relational or social monitoring cues to be particularly useful for predicting trustee benevolence. If anything, social monitoring would be seen as robbing a person's autonomy (Iyengar & Lepper, 1999) and thus potentially undermining a person's integrity.

Accordingly, as illustrated in Figure 1, I make the following hypotheses:

Hypothesis 2a: There would be a stronger belief in individual agency than group agency among Americans.

Hypothesis 2b: There would be a stronger belief in group agency than individual agency among Asians.

Hypothesis 3a: The stronger endorsement of group agency beliefs among Asians than among Americans would mediate Asians' greater reliance on social monitoring cues vs. individual integrity cues to establish trust.

Hypothesis 3b: The stronger endorsement of individual agency beliefs among Americans than among Asians would mediate Americans' greater reliance of individual integrity cues

vs. social monitoring cues to establish trust.

I.4 Trust in e-commerce

The present investigation focuses on trust in e-commerce, although my proposed model is applicable beyond this specific context. There are several reasons for this focus. First, the rapid progress of technology has impacted theoretical understanding of trust. Traditionally, in social sciences, trust has been studied in interpersonal and group contexts. However, it is debatable whether these findings can be generalized to peoples' trust in relationships that are built using new media technologies, such as an online marketplace (Shneiderman, 2000). The topic of trust in e-commerce provides an opportunity to address this issue and to re-examine how the rapid progress of technology in marketing has impacted the process and construction of trust.

Second, trust is important to all forms of economic transaction in general, and to e-commerce particularly. E-commerce is a new form of economic activities. In all forms of economic transactions, trust is a form of social capital that benefits the economy by promoting cooperative economic behaviors (Zak & Knack, 2001). An economic agent optimizes their economic benefits when he or she exhibits a level of trust that is equal to the trustworthiness of the trustee (Braynov & Sandholm, 2002). The trustor would risk losing valuable economic opportunities if he or she trusts less than what the level of trust the trustee deserves. However, trusting more than the trustworthiness of the trustee would subject the trustor to unnecessary financial vulnerabilities and potential exploitation. In addition, long time customer relationship builds on trust (Beltramini & Pitta, 1991; Berry, 1983; Berry & Parasuraman, 1991; Morgan & Hunt, 1994; Spekman & O'Neal, 1988; Spekman, 1988), and trust is essential for new company to gain market share (Urban, Sultan, & Qualls, 2000). Across all medias of commercial transaction, trust not only predict the probability of purchase, it increases purchase through the reduction of perceived risk and uncertainty (Gefen, 2000; Walczuch & Lundgren, 2004).

In e-commerce, technology mediates the relationship between the buyer and the seller (McKnight & Chervany, 2002). Furthermore, e-commerce is typically characterized by the absence of direct interactions between buyers and sellers in marketplaces. This characteristic of e-commerce further elevates the importance of trust, rendering the understanding of how e-commerce consumers make trust decisions particularly important.

Finally, to manage consumers' trust in e-commerce, online marketplaces have been proactively trying to improve their reputation-based systems to convince buyers to trust sellers (Chang, Dillion, & Hussain, 2006). The effectiveness of such systems rests on the extent to which their design can capture the consumers' perception of trustworthiness.

I.5 Summary of contributions

The present investigation seeks to make the following theoretical and empirical contributions to the literature on culture and trust. It seeks to construct an integrated model that examines cross-cultural variations in trust judgments in terms of the dynamic interaction of trustor characteristics (cultural background and cultural beliefs), trustee characteristics (individual integrity) and system characteristics (social monitoring). Although past research has identified individual integrity and social monitoring to be two major trust-establishing lay approaches, it is still unclear what would predict the relative reliance on the two lay approaches. Cross-cultural studies have found some evidence for cultural differences in the relative reliance on the two conditions but have not expounded the underlying cultural factors that mediate these cultural differences. The present investigation addresses this gap by documenting cultural differences in the relative reliance on the two lay approaches and to explaining these differences in terms of cultural variations in agency beliefs. Although my proposed model is applicable beyond the context of e-commerce, evaluating my model in the e-commerce context provides added benefits of extending the theoretical importance of the model in a socially and economically important domain.

II. EMPIRICAL EVIDENCE

II.1 Overview of studies

In this section, I presented four studies that were carried out to test the hypotheses depicted in Figure 1. To establish the hypothesized cross-cultural differences in the preferences for individual integrity versus relational and social monitoring cues for establishing trust in e-commerce setting, in Study 1, I measured the level of trust Singaporean Chinese and Americans had toward sellers who were socially monitored versus those who were not, and tested the prediction that only Singaporean Chinese would have a stronger preference for the socially monitored sellers than do Americans. In Study 2, I further tested the cross-cultural hypothesis by pitting social monitoring cues against individual integrity cues to determine the relative preference for the two types of cues by American and Singaporean Chinese participants.

Study 3 tested the hypothesis that Americans believe more strongly in individual than group agency and Asians believe more strongly in group than individual agency by measuring the two agency beliefs endorsed by American and Singaporean Chinese participants. I also tested whether cultural differences in agency beliefs mediated the hypothesized cultural differences in the relative importance of individual integrity versus relational and social monitoring cues for establishing trust in e-commerce. Lastly, in Study 4, to show that agency beliefs supported their attendant trust preferences, I manipulated the relative salience of individual or group agency beliefs and tested the causal effect of agency beliefs on the relative importance of individual integrity versus relational and social monitoring cues for evaluating trust in e-commerce.

II.2 Study 1

In Study 1, I tested whether Asians (but not Americans) use social monitoring cues as trust-establishing criterion in an online purchase setting. If Asians (but not Americans) indeed use social monitoring cues to establish trust, they should trust the socially monitored seller more than the sellers who are not socially monitored.

Method

I recruited 133 (40% male) European Americans in the US and 128 Chinese (42% male) in Singapore to participate in this study. The participants were undergraduate students from public universities in their respective country. To test my prediction that when judging the trustworthiness of the seller, the Chinese have a preference for social monitoring cues, I compared the level of trust between the two groups of participants toward sellers who were under social monitoring and those who were not.

Participants read the following online purchase scenario and imagined themselves being a potential buyer in the scenario:

You are interested in buying a new digital camera. ... After much online research, you settle for a new model from Sony that was just released. Because cameras usually sell for lower prices on eBay, you decide to bid the item on eBay instead of buying it from a local store. Since it is a newly released item, you find only 1 seller selling this item and you are deciding if you will buy from this seller.....

Next, participants were randomly assigned to read one of the following descriptions of the seller:

(a) a stranger: “The seller does not have any feedback ratings. You have no additional information on this seller.”;

(b) a seller who belonged to the same social group as the buyer: “The seller does not have any feedback ratings. After you emailed this seller to inquire about the camera, you found out that this seller is a member of a nationwide photography association, which you also belong to. However, you do not know this seller directly.”;

(c) a seller who belonged to the same social group of the buyer’s friend: “The seller does not have any feedback ratings. After you talked to your friend, you found out that this seller is a member of a nationwide photography association, which your friend also belongs to. However, your friend does not know this seller directly.”;

and

(d) a seller who belonged to a tight social network where the personal reputation of the network members was under social monitoring: “After emailing the seller to inquire about the camera, you found that he belongs to a national organization (which you DO NOT belongs to). From what you know about this organization, most of the members have been in this organization for a long time and know each other. People’s reputation in this organization is important.”

Theoretically speaking, social monitoring of the seller is not possible if the seller is a total stranger (Seller a). In contrast, social monitoring is most effective if the seller is an ingroup member (Seller b) or belongs to a social group with an instituted social monitoring structure (Seller d). When the seller is in a friend’s social group (Seller c), the possibility of social monitoring is ambiguous. If the Singaporean Chinese prefer social monitoring cues when evaluating the trustworthiness of the sellers, they would trust the seller in a socially monitored group (Seller d) and the seller in the in-group (Seller b) more than they do toward a stranger (Seller a); and the trust toward the seller in a friend’s social group (Seller c) would lie in between.

Although I hypothesize that Americans would not consider social monitoring cues to be relevant for determining seller trustworthiness, I hypothesize that Americans would also trust the in-group seller more than they do the remaining three sellers, because according to the social identity theory (SIT; Tajfel 1971; Turner et al., 1987), people universally trust in-group members more than they do out-group members. In connection to this, Yuki and colleagues (2005) found that both European Americans and the Japanese trust in-group members more than out-group members. Furthermore, Yuki and colleagues (2005) found that the concept of in-group differs across cultures. To European American, an in-group member is a person who belongs to the same social category as the self. To the Japanese, an an-group member is somebody who belongs to an extended social network of the self and can include people who are indirectly connected to the self (the acquaintance of

a friend) even if that person does not belong to the same social category of the self. Thus, the in-group bias in trust among European Americans reveals itself in greater trust toward someone from the same (vs. different) social category as the self, and the same bias among the Japanese is revealed in greater trust toward somebody who is inside (vs. outside) the extended social network of the self.

Extending this past finding into the context of the present investigation, to further validate Yuki and colleagues' (2005) finding, I hypothesize that European Americans would trust the seller who belonged to the same social category as the buyer (Seller b) more than they would the other three sellers.

The inclusion of the in-group seller condition also helps to rule out the alternative explanation that Americans are simply indifferent about the identity of the sellers. If the Americans trust the three remaining sellers to the same extent, it is unclear whether Americans do not emphasize social monitoring or they have no preferences in seller selection. If Americans prefer an in-group member more than they do the remaining sellers, this result would indicate that Americans also have preferences in seller selection, although they do not find social monitoring to be relevant in the judgment of seller's trust.

After reading the scenario, the participants responded to four items that measured trust toward the seller (trust toward the seller; trust that the seller would deliver the product; trust that the seller would deliver a product of quality; and trust that the seller would deliver the product as promised). The participants indicated their response to each item on a scale that ranged from 1 (completely distrust) to 7 (trust completely). I took the mean of the four items to form a measure of trust perception ($\alpha = .71$).

Results and Discussion

A 2 (Culture) x 4 (Seller Identity) between-subjects analysis of variance (ANOVA) was performed on the trust perception measure. There was a significant main effect of culture ($F(1, 253) = 24.62, p < .001, \eta_p^2 = .09$); Chinese Singaporeans ($M = 4.44, SD = 0.98$) reported higher level of trust on average than did Americans ($M = 3.97, SD = 0.44$).

There is also a significant main effect of seller identity ($F(3, 253) = 44.75, p < .001, \eta_p^2 = .35$): The in-group seller was most trusted ($M = 4.95, SD = 0.78$), and the stranger the least trusted ($M = 3.53, SD = 0.74$)

More importantly, there was a significant Culture x Seller Identity interaction ($F(3, 253) = 12.57, p < .001, \eta_p^2 = .13$). As predicted, participants from the two cultures trusted the four sellers to different extents. To understand this interaction, separate planned contrast analyses were performed on the American data and on the Singaporean data. Consistent with past findings (Yuki, Maddux, Brewer, & Takemura (2005), and as illustrated in Figure 2, for the Singaporean Chinese, trust of the seller in a friend's network was significantly higher than that of the stranger ($t(126) = 2.58, p = .01$). Furthermore, consistent with my hypothesis concerning the effect of social monitoring on trust perception among Asians, the level of trust towards the in-group seller did not differ from that toward a seller in a socially monitored network ($t(126) = 0.98, p = .33$), and the levels of trust toward these two sellers were significantly higher than those toward the seller in a friend's network or a seller who was a stranger. These results supported the hypothesis that the Singaporean Chinese find social monitoring cues to be useful for evaluating the trustworthiness of the seller.

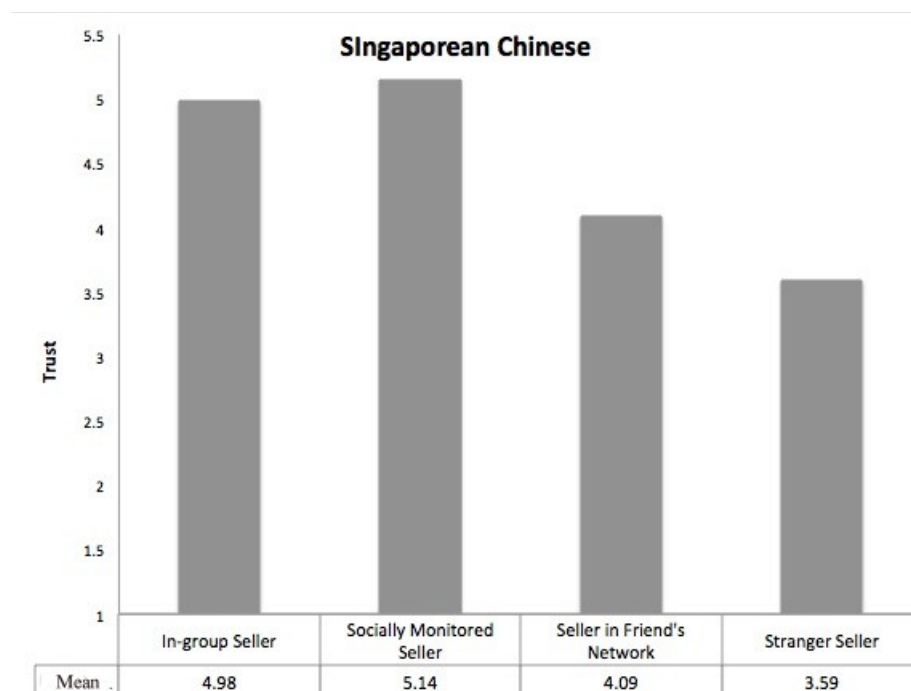


Figure 2. Trust toward the target sellers for Singaporean Chinese

As shown in Figure 3, for Americans, consistent with the social identity theory prediction and Yuki and colleagues' (2005) past findings, the level of trust toward the in-group seller was the highest and significantly higher than the levels of trust toward the remaining three sellers, $t_s(126) > 6.50$, $p_s < .001$. The levels of trust toward the seller in a friend's social group, the socially monitored seller and the stranger did not differ from each other, $t_s < 1.50$, *ns*.

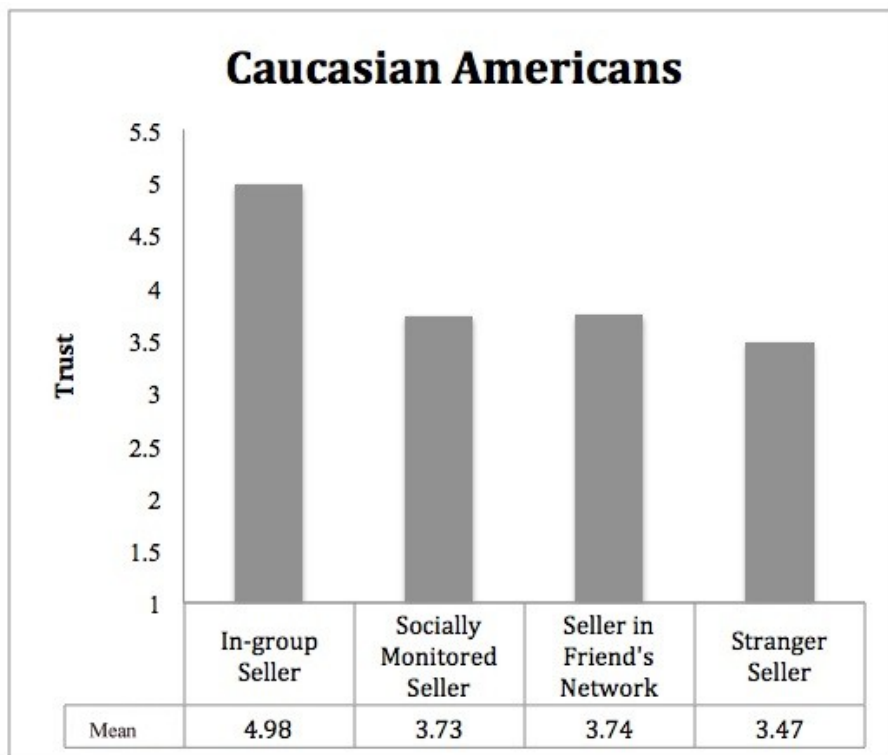


Figure 3. Trust toward the target sellers for European Americans.

Results from Study 1 are consistent with my hypothesis regarding cultural differences in the relevance of social monitoring cues for evaluating trust. However, I did not measure the perceived relevance of individual integrity cues in trust perception. Therefore, it is still unclear whether Asians consider social monitoring cues to be more relevant to trust than individual integrity cues and whether Americans have the perceptions in the opposite directions. To fill this gap, in Study 2, I pit individual integrity and social monitoring cues against each other.

II.3 Study 2

Study 2 tested whether Asians (Americans) consider social monitoring cues to be more (less) relevant to trust than individual integrity cues. To extend the generality of the results, I tested my hypothesis in a different context: investment banking. Although this is not an e-commerce context, trust plays a crucial role in financial investment because of the involvement of potentially high risks in financial investments (Moorman, Zaltman, & Deshpande, 1992). In addition, trust perception in financial investment has been studied frequently in the trust and perceived risk literature (Hsee & Weber, 1999; Weber & Hsee, 1998; White, 2005). Thus, results from the current study will allow me to examine risk perception in high risk contexts and relate my results to previous research on risk perception. In Studies 3 and 4, I seek to replicate results from this study in e-commerce contexts.

Participants in the current study evaluated the trustworthiness of an investment banker who was either being socially monitored or not, and either had a record of personal integrity or not. I predict that both Asians and Americans would trust a socially monitored, high integrity banker more than a banker with unknown integrity and not being monitored. However, I predict that Asians would trust a socially monitored banker with unknown integrity more than a high integrity banker who is not being monitored, and Americans would have the opposite preference.

Method

I recruited 145 European Americans (48% male) in US and 155 Chinese (42% male) in Singapore to participate in this study. The participants were undergraduate students from public universities in their respective country. Participants read the following scenario:

You won a lottery last week, and decided to invest 1/4 of your lottery money.

Since a large sum of money is involved, you need to find a trustworthy investor.

Next, participants were randomly assigned to read one of the following

descriptions of an investment banker:

(a) a socially monitored, high integrity banker: The target “works in an investment company that values consensus within the company. When he makes investment decisions, he will need approval from his supervisor... his actions are monitored by others in the company... when reviewing his records, you noticed that he has kept up his high integrity during his previous transactions with various clients.”;

(b) a socially monitored banker with unknown integrity: The target “works in an investment company that values consensus within the company. When he makes investment decisions, he will need approval from his supervisor... his actions are monitored by others in the company... He is a new hire in the company, therefore, you do not know about his previous records with clients.”

(c) a high integrity banker who was not socially monitored: The target “works in an investment company that values an independent working environment... his actions are not monitored by others in the company... when reviewing his records, you noticed that he has kept up his high integrity during his previous transactions with various clients.”;

(d) a banker with unknown integrity and was not socially monitored: The target “works in an investment company that values an independent working environment... his actions are not monitored by others in the company... He is a new hire in the company, therefore, you do not know about his previous records with clients.”

Finally, participants responded to four trust items that measured the amount of trust the participant had toward the banker. The four items were (a) “To what extent would you trust this person to handle your investment?”; (b) “How likely is it for this person to make hasty investment decisions without your consent?” (c) “How likely is it for this person to make honest choices with your investment money?”; and (d) “How likely is it for this person to

pocket some of the earnings of your investment money?”. Participants indicated their response to each item on a scale from 1 (*distrust completely*) to 7 (*trust completely*). The four trust questions were combined to form a single trust perception measure ($\alpha = .73$).

Results and Discussion

An 2 (Culture) X 4 (Banker) ANOVA performed on the trust perception measure revealed a significant main effect of culture, $F(1, 292) = 7.75, p = .006, \eta_p^2 = .03$. On average, Caucasian Americans gave higher trust ratings than the Singaporean Chinese ($M_{\text{Americans}} = 4.68, SD = 1.07; M_{\text{Chinese}} = 4.43, SD = 1.09$); and the trust ratings also differed across the four conditions.

There was also a significant main effect of banker, $F(3, 292) = 107.03, p < .001, \eta_p^2 = .52$; which was qualified by the significant Culture x Banker interaction, $F(2, 292) = 13.10, p < .001, \eta_p^2 = .12$. To understand this interaction, a separate planned contrast analyses were carried out for the Singaporean data and for the American data. Consistent with my prediction and as illustrated in Figure 4, the Singaporean Chinese had a similar level of trust toward the monitored, high integrity banker and the monitored banker with unknown integrity, $t(154) = 1.77, p = .077$. The level of trust toward these two targets were significantly higher than that for high integrity banker not under monitoring, $t(154) = 6.02, p < .001$, as well as that for the banker who was not monitored and had unknown integrity, $t(154) = 4.71, p < .001$.

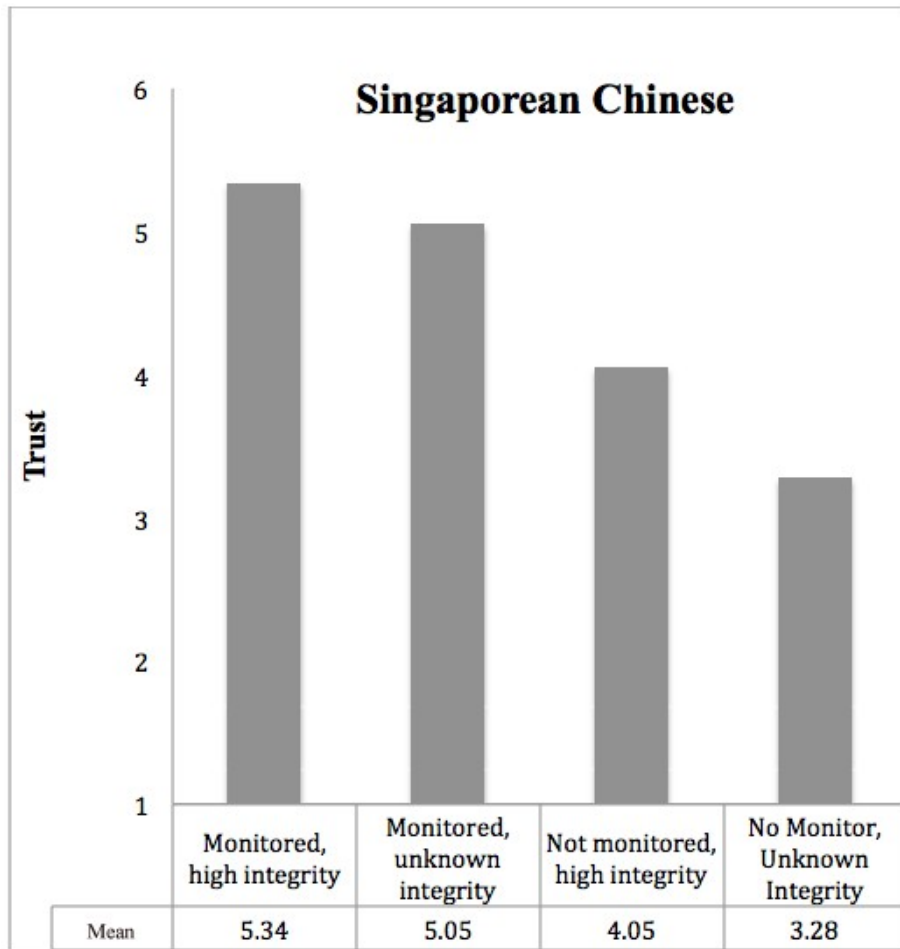


Figure 4. Trust toward the different bankers for Singaporean Chinese

In contrast, as shown in Figure 5, Americans had the same level of trust toward the high integrity banker, regardless of whether the banker was under social monitoring or not, $t(144) = 1.13, p = .26$, and the levels of trust for these two bankers were significantly higher than that for the monitored banker with unknown integrity, $t(144) = 2.45, p < .014$, and that for the banker who was not monitored and had unknown integrity, $t(144) = 7.94, p < .001$.

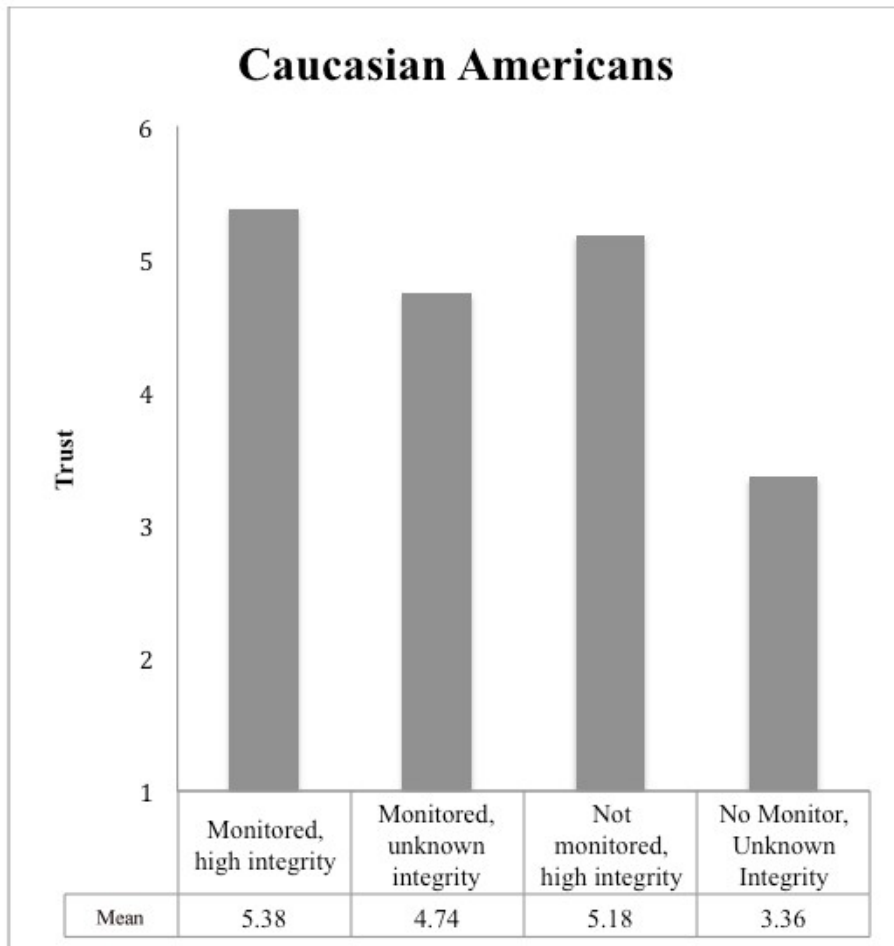


Figure 5. Trust toward the different bankers for European Americans

In summary, consistent with my hypothesis, the results show that Asians (Americans) consider social monitoring cues to be more (less) relevant to trust than individual integrity cues. In the next study, I sought to replicate the same pattern of results in an e-commerce context and to show that individual and group agency beliefs mediate this cross-cultural difference in trust perception.

II.4 Study 3

Study 3 tested whether individual and group agency beliefs mediate cultural differences in trust perception in an online purchase context. I hypothesize that endorsement of individual (group) agency beliefs would mediate the relationship between culture and preference for individual integrity (social monitoring) trust cues.

In the literature, the intention to buy from a seller is considered to be a trust intention if the consumer realizes the buying intention involves risk (Moorman, et al.,

1992) To extend my results to a different but widely used measure of trust in the literature, I used buying intention as a proxy for trust in the current study. Because trust involves awareness of the risk of harm to the trustor if the trustee breaks the psychological contract implicated in a trust relationship (Kim, Ferrin, Cooper, & Dirks, 2004; Moorman, et al., 1992; Schlosser, et al., 2006), to establish the validity of my measure, I need to first demonstrate that participants would perceive the e-commerce scenario I used in the main study as one that involves considerable risk. Therefore, I carried out a pilot study to verify the assumption that consumers perceive considerable risks when they buy from a seller in online marketplaces, and that American and Asian participants do not differ in the amount of risk they perceive in online trading.

Pilot Study

To verify the assumption that consumers perceive considerable risks in online trading, I recruited 35 (62% male) European Americans from the US, and 43 (59% male) Chinese from Singapore to read the following online purchase scenario and indicate the amount of risk they perceived in purchasing from this marketplace on a Likert scale from 1 (*not at all risky*) to 7 (*extremely risky*):

“You are interested in buying a high end digital camera in the secondhand market. There are two marketplaces available that sell the camera you want. The two sellers from both places are selling the camera at about the same price ... You are now deciding which seller you will buy from...”

ANOVA results indicated that there were no cross-cultural differences in the amount of perceived risk in this transaction, $F(1,76) = .536, p = .47$. The mean level of perceived risk ($M = 5.31, SD = 1.17$) was significantly higher than the midpoint (4) of the scale, $t(77) = 9.91, p < .001$, indicating that perceivers from both cultures perceived moderately high risk in this buying context and thus making it a suitable scenario for testing trust intention in both cultures.

Main Study

Method. I recruited 81 (35 % male) Americans from the US and 78 (54% male) Chinese from Singapore to participate in a study on consumer behaviors. The participants filled out a Qualtrics-administered online survey in a research laboratory. After reading the scenario used in the pilot study, participants read about the following two online markets where they could buy the product:

Socially Monitored Marketplace: Goods are sold through selling clubsbuyers can submit positive or negative feedback to the club.... Each selling club has authority in granting memberships to individual sellers and expelling individual sellers within their club.

Individual Integrity Marketplace: Goods are sold directly from individual sellers.....buyers can submit positive or negative feedback... posted under the name of each individual seller.

After reading about the two marketplaces, participants rated the likelihood of buying from each of the two marketplaces on a Likert scale from 1 (*extremely unlikely*) to 7 (*extremely likely*). In the current study, I used buying intention as a proxy for trust. As the pilot test results show, both Singaporean Chinese and European Americans perceived this buying situation to involve considerable risk, and both groups did not differ in their perceived risk. Thus, the buying intention measure arguably assessed trust, and the cultural differences I hypothesize in the current study cannot be explained in terms of cultural differences in perceived risk.

Next, to ensure that responding to the scenarios (socially monitored and individual integrity) would not contaminate responses to the assessment of agency beliefs, participants completed a filler task that lasted for approximately 10 minutes before filling out the agency scale (Brewer, Hong, & Li, 2004; Hong & Wong, 2000), which consisted of two subscales: Individual agency subscale (6 items measuring endorsement of individual agency, e.g., “In this society, what happens in an individual’s life is or his or her own

making”; $\alpha = .73$), and group agency subscale (6 items measuring endorsement of group agency, e.g., “In this society, social groups and organizations take control of the situations around them and exercise free will”; $\alpha = .75$). Participants’ mean ratings on these two subscales were calculated.

Results and Discussion. As predicted, the interaction of culture and market in the Culture X Market mixed design ANOVA was significant, $F(1,157) = 14.56, p < .001, \eta_p^2 = .09$. As shown in Table 1, European Americans were more likely to buy from the individual integrity market than the socially monitored market, $t(80) = -3.03, p = .003$; whereas Singaporean Chinese displayed a reverse pattern, $t(77) = 2.37, p = .02$.

Table 1. Mean Likelihood of Americans and Chinese to Buy from the Two Types of Marketplaces

| Culture | Marketplace | |
|---------------------|----------------------------------|--------------------------------|
| | Individual Integrity Marketplace | Socially Monitored Marketplace |
| European Americans | 4.48(1.11) | 3.80(1.21) |
| Singaporean Chinese | 3.99(1.19) | 4.53(1.14) |

Notes. The numbers in parenthesis are standard deviations.

The predicted interaction of culture and agency belief in the Culture X Individual versus Group Agency mixed design ANOVA was also significant $F(1,157) = 17.07, p < .001, \eta_p^2 = .10$. As shown in Table 2, European Americans believed more strongly in individual agency than group agency, $t(80) = -3.14, p = .002$, while the reverse is observed for Singaporean Chinese, $t(77) = 2.71, p = .008$.

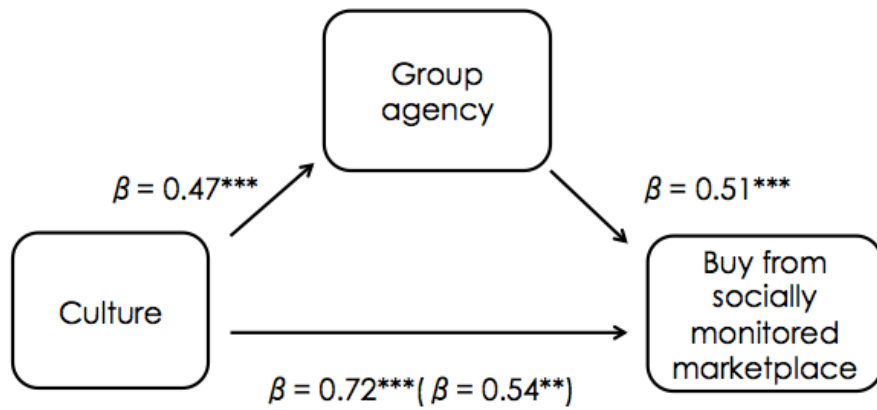
Table 2. Mean Endorsement of Americans and Chinese on Individual versus Group Agency.

| Culture | Agency Endorsement | |
|---------------------|--------------------|--------------|
| | Individual Agency | Group Agency |
| European Americans | 4.33(0.72) | 3.88(0.81) |
| Singaporean Chinese | 4.01(0.79) | 4.35(0.67) |

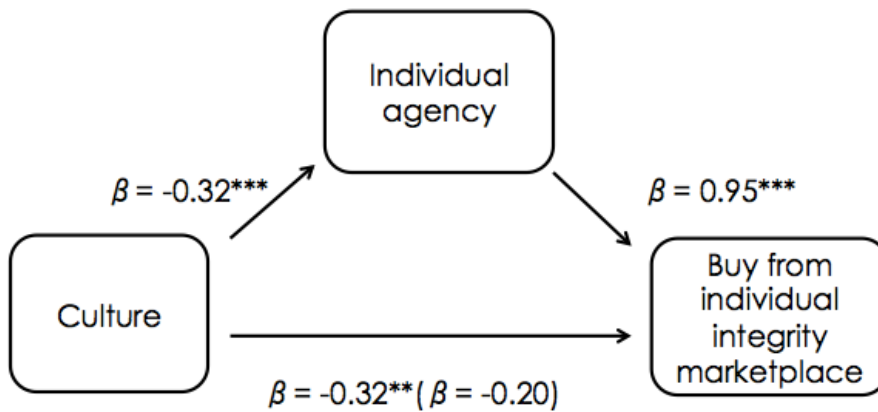
Notes. The numbers in parenthesis are standard deviations.

To test the mediation effect of group agency on the cultural differences in the preference for the socially monitored marketplace, I regressed the intention to buy from the socially monitored marketplace on culture. The effect of culture was significant, $\beta = 0.72$, $t(157) = 3.88$, $p < .001$. As shown in Figure 6, when I added group agency beliefs into the regression equation, the effect of group agency was significant, $\beta = 0.51$, $t(157) = 4.25$, $p < .001$, and the effect of culture when the mediator was entered as a predictor decreased to $\beta = 0.54$, $p = .005$, indicating a partial mediation. Sobel test results revealed that was significant ($z = 2.52$, $p < .01$).

To test the mediation effect of individual agency on the cultural differences in the preference to buy from the individual integrity marketplace, I regressed intention to buy from the individual integrity marketplace on culture. The effect of culture was significant, $\beta = -0.32$, $t(157) = -2.67$, $p < .008$. When I added individual agency beliefs to the regression equation, the effect of individual agency was significant, $\beta = 0.95$, $t(157) = 9.67$, $p < .001$, and the effect of culture when the mediator was entered as a predictor decreased to $\beta = -0.20$, $p = .195$, indicating a full mediation. Sobel test results indicated that this mediation was significant ($z = -2.58$, $p < .01$).



*** $p < .001$; ** $p < .01$



*** $p < .001$; ** $p < .01$

Figure 6. Mediation effects of agency beliefs

In summary, I replicated the cultural differences in the preference for social monitoring versus personal integrity cues in evaluating trust: Asians considered socially monitoring cues to be more relevant in evaluating trust, whereas Americans considered individual integrity cues to be more relevant. Furthermore, the cross-cultural difference in the preference for socially monitoring cues was partially mediated by the belief in group agency and the cross-cultural difference in the preference for individual integrity cues was fully mediated by the belief in individual agency.

II.5 Study 4

Study 4 seeks to provide further evidence for the mediation role of agency beliefs in cross-cultural differences in trust perception by demonstrating the causal effect of agency beliefs on individuals' preferences for social monitoring and individual integrity cues when

evaluating a seller's trustworthiness in e-commerce contexts. Specifically, I manipulated the relative salience of group and individual agency beliefs to determine whether this manipulation would lead to corresponding changes in the reliance on social monitoring versus individual integrity cues for evaluating a seller's trustworthiness.

Method

I recruited 129 European Americans (40% male) in the US to complete a Qualtrics-administered online survey in a research laboratory. The participants were randomly assigned to either the individual agency or group agency priming condition. To prime individual (group) agency, participants read one of the following paragraphs written to highlight individual agency or group:

Individual Agency Prime: “[I]ndividual’s own characteristics (e.g., personality, attitudes, desires, and will) determine his/her own future. The individuals involved are free to act in ways that they choose. Please use the space below to list your three examples. Please explain in details of how the individuals choose and create their own outcomes.”

Group Agency Prime: “[G]roups that have resources would use them to achieve their goals; whereas groups that don’t have a lot of resources may rely on other means to get what they want. Now, we want you to think of three examples that show groups are powerful in determining important outcomes (in the society and for their members). Please explain in details of how the groups choose and create outcomes for their members.”

Participants subsequently list three examples from their own experiences to illustrate how the qualities of the individual (collective group) had led to successful attainment of goals. Similar priming procedures have been used in the literature to activate specific implicit theories (Hong, Morris, Chiu, & Benet-Martinez, 2000; LaFromboise, Coleman, & Gerton, 1993; Phinney & Devich-Navarro, 1997).

After the priming procedure, participants read the same online market scenario used

in Study 3; specifically, the participants were asked to choose between two marketplaces with one emphasizing individual integrity of the seller and the other the instituted social monitoring structure. Next, the participants indicated (a) the likelihood of, and (b) confidence in buying from each of the two marketplaces on a 1 (*not at all*) to 6 (*very much so*) Likert scale.

Upon completing the first scenario, participants responded to the investment banker scenario used in Study 2, but only two of the four bankers were used in the present study. Specifically, participants were randomly assigned to evaluate the trustworthiness of (a) a high integrity banker who was not under social monitoring, or (b) a monitored banker with unknown integrity. They rated the trustworthiness and the honesty of the banker on a 1 (*not at all*) to 7 (*very much so*) Likert scale. The correlation of these two items was high ($\alpha = .81$), and thus the ratings of these two items were averaged to create an index of participants' trust toward the banker. Finally, as a manipulation check, participants filled out the agency scale (Brewer, et al., 2004; Hong & Wong, 2000) used in Study 3 and provided some demographic information.

Results and Discussion

Manipulation check results indicated that following individual agency priming, participants' endorsement of individual agency ($\alpha = .81$) was significantly stronger than their endorsement of group agency ($\alpha = .73$) ($M_{\text{individual agency}} = 4.50$, $M_{\text{group agency}} = 3.91$; $t(128) = 5.06$, $p < .001$). Likewise, following group agency priming, participants' endorsement of group agency was significantly stronger than their endorsement of individual agency ($M_{\text{individual agency}} = 3.83$, $M_{\text{group agency}} = 4.14$; $t(128) = -2.57$, $p = .01$).

Results of a mixed design ANOVA with agency priming and marketplace as predictors on buying intention revealed a significant interaction, $F(1, 127) = 44.18$, $p < .001$, $\eta_p^2 = .26$. Consistent with my hypothesis and as illustrated in Table 3, following group agency priming, participants preferred to purchase from the socially monitored marketplace more than they did from individual integrity marketplace, $t(58) = 3.89$, p

< .001. Following individual agency priming, they preferred the individual integrity marketplace more than they did from the socially monitored marketplace, $t(69) = -5.65$, $p < .001$.

Table 3. Preferences for Socially Monitored and Individual Integrity Marketplace Following Group and Individual Agency Priming

| Priming Condition | Likelihood to buy | | Confidence | |
|---------------------------|-----------------------------|---------------------------|-----------------------------|---------------------------|
| | Individual Integrity Seller | Socially Monitored Market | Individual Integrity Market | Socially Monitored Market |
| Individual Agency Priming | 4.49(1.18) | 3.31(1.36) | 4.41(1.09) | 3.64 (1.06) |
| Group Agency Priming | 3.58(1.28) | 4.58(1.15) | 3.47(1.04) | 4.41(1.06) |

Notes. The numbers in parenthesis are standard deviations.

The same results held for confidence in purchase from the two marketplaces. Results of a mixed design ANOVA with agency priming and marketplace as predictors on purchase confidence revealed a significant interaction, $F(1, 127) = 40.68$, $p < .001$, $\eta_p^2 = .24$). Specifically, as shown in Table 3, following individual agency priming, participants were more confident in buying from the individual integrity marketplace than from the socially monitored marketplace, $t(69) = -4.21$, $p < .001$. In contrast, following group agency priming, participants were more confident in buying from the socially monitored marketplace than from the individual integrity marketplace, $t(58) = 4.82$, $p < .001$.

Results from an Agency Priming X Banker ANOVA performed on the trust perception of the two bankers in the investment scenario revealed a significant interaction of agency priming and banker, $F(1, 125) = 58.84$, $p < .001$, $\eta_p^2 = .32$. Specifically, as predicted, following individual agency priming, participants trusted the high integrity, no monitoring investment banker more than they did the socially monitored banker with unknown integrity, $F(1,68) = 30.65$, $p < .001$, $\eta_p^2 = .31$. In contrast, as predicted, following

group agency priming, participants trusted the socially monitored banker with unknown integrity more than they did the high integrity banker who was not monitored, $F(1, 57) = 27.79$, $p < .001$, $\eta_p^2 = .34$.

Table 4. Trust Toward the Investment Banker Following Individual and Group Agency Priming

| Banker | Priming Condition | |
|--------------------------------------|-------------------|--------------|
| | Individual Agency | Group Agency |
| High Integrity No monitoring | 5.27(.64) | 4.09(1.13) |
| High Monitoring Unknown Integrity | 4.17(.85) | 5.50(.51) |

Notes. The numbers in parenthesis are standard deviations.

III. GENERAL DISCUSSION

III.1 Summary of results

In the current research, I found consistent cultural differences in the relative importance of individual integrity and social monitoring cues in making trust decisions. Study 1 shows that Singaporean Chinese rely on relational and social monitoring cues more than European Americans when making trust decisions. In Studies 2 and 3, I pitted social monitoring cues against individual integrity cues in trust decisions. The findings from Study 2 show that in a high risk and high stake investment situation, European Americans relied more on individual integrity cues than social monitoring cues when making trust decisions, whereas Singaporean Chinese showed the reverse pattern. Study 3 replicated this finding in an online purchase scenario and linked the observed cross-cultural differences to the stronger belief in individual agency among Americans and the stronger belief in group agency among Asians. Specifically, individual agency belief mediates Americans' preference for the individual integrity marketplace and group agency belief mediates Asians' greater preference for the socially monitored marketplace. In Study 4, a causal linkage between the agency beliefs and the relative preference for the two trust-establishing cues was established by experimentally manipulating the accessibility of individual versus group agency beliefs. Following individual (group) agency priming, participants increased their trust in and intention to buy from the high individual integrity (socially monitored) marketplace. The same pattern of findings was also revealed in an investment banker scenario. The findings from the first three studies consistently supported Hypothesis 1a and 1b regarding cultural differences in trust decisions. The last two studies provided consistent support for Hypotheses 2 and 3, which state that individuals in the two cultures differ in the prevalence of the two types of agency beliefs, and that the culturally shared agency beliefs mediate cultural differences in trust decisions.

III.2 Implications for trust research

Trust is a lubricant that smoothens social interactions and economic transactions. Past research has identified two major types of trust-establishing conditions, one based on the characteristics of the trustee and one based on the regulatory or social control mechanisms that are instituted in the system. The present research builds on this finding and shows that people rely on both conditions to judge how much they can trust others. Moreover, I showed that the relative importance of these two conditions depends on the cultural background of the trustor and the cultural beliefs the trustor endorses. Whereas Americans, driven by their stronger belief in personal (vs. group) agency, emphasize individual integrity cues more than they do social monitoring cues in judging trust, Asians, driven by their stronger belief in group (vs. individual) agency, emphasize social monitoring cues more than they do individual integrity cues. I obtained this pattern of results across the domains of e-commerce and financial investment, across two types of trustees (individual sellers and marketplaces), and with different measures of trust intentions (direct measure of perceived trust, and proxy measure via purchase intention under risk). The effect of agency beliefs on trust judgments was obtained in a cross-cultural study where agency beliefs were measured as individual differences mediators and in an experimental study where agency beliefs were experimentally manipulated. The results of Study 4, in which agency beliefs were manipulated, showed that even Americans can be induced to rely more on social monitoring cues when making trust decisions once the accessibility of the group agency belief is heightened. Aside from showing that agency beliefs mediate cultural differences in trust decisions, this finding also underscores the malleable nature of cultural influence.

Few studies have investigated cross-cultural differences in trust decisions. In this connection, it is interesting to note that most theories that seek to relate trust decisions to the characteristics of trustor or trustee originated from the West (McKnight & Chervany, 2002), possibly a reflection of the entrenched belief in Western cultures that the individuals and their characteristics are the major shapers of the outcomes in trust relations. In contrast,

most theories that seek to relate trust to instituted assurance mechanisms originate from Eastern cultures, particularly Japan, where individuals face more constraints in exercising their personal agency and social forces play relatively important roles in shaping individuals' outcomes. My findings shed light on this theoretical bias in trust research. In Western cultures where the individual is perceived to be an autonomous agent, research attention is naturally drawn to how individuals exercise personal agency to shape interaction outcomes. In contrast, in Eastern cultures, the group wherein the individual is embedded is a major determinant of interaction outcomes, attention is drawn to how group processes can be exploited to constrain individual actions to establish interpersonal trust.

III.3 Implications for cross-cultural research

Some past research has revealed cultural differences in trust decisions. For example, in one study, Yuki and colleagues (2005) found that Japanese trust others in the extended social network of the self more than those who are not in the network, and that Americans trust others in the same social category as they do more than those who do not belong to the same social category. I replicated these results in Study 1, showing that Asians trusted a target who belongs to a friend's social group (thus indirectly links to the trustor's extended social network) more than a total stranger, and that Americans trust only the target who belongs to their own group but not significantly more so for a target who belongs to a friend's social group. In another study, Yamagishi and Yamagishi (1994) found that compared to each other, Americans consider personal reputation more, and the Japanese consider social relations more when making trust decisions. My results regarding cross-cultural differences in trust decisions are consistent with this past finding because as mentioned in the Introduction, individual integrity builds upon the trustee's past reputation of being able to treat the trustors benevolently. In contrast, embeddedness in dense social networks affords more opportunities for social monitoring. More importantly, my results further show that these cross-cultural differences are driven by the beliefs in individual (group) agency in American (Asian) culture.

Previous research has provided consistent evidence that Asian cultures privilege the belief in group agency and American culture the belief in individual agency. This cultural difference in agency belief has been applied to explain Asians' greater tendency to make attributions to characteristics of the group and Americans' greater tendency to make attributions to characteristics of the individual (Menon et al., 1999). My results further extend this literature by showing that culturally shared agency beliefs also mediate cultural differences in trust decisions. This finding suggests that a fruitful approach to unpack cultural differences is to analyze the beliefs that people in a cultural group collectively construct and share to make sense of the common experiences in a particular social ecology (Chiu, Gelfand, Yamagishi, Shytenberg, & Wan, 2010).

III.4 Implications for trust in e-commerce

In e-commerce, the absence of face-to-face interactions together with a highly mobilized consumer group comprising people from different cultures, have elevated the level of consumer uncertainty considerably (Gefen, 2000; McKnight & Chervany, 2002; Walczuch & Lundgren, 2004). With the high level of uncertainty that accompanies most purchase decisions made in e-commerce environments, trust is crucial in making online consumption decisions. As such, it is important to understand what cues consumers from different cultures use to make trust decisions.

The model depicted in Figure 1 can be applied to explain and predict trust decisions in e-commerce cases in American and Asian contexts. For example, it sheds light on why some of the individual reputation-based systems such as EachNet (eBay) failed in China despite the success of such systems in the U.S.. My findings imply that, in East Asian markets, where agency is perceived to lie in the group, a system built on structural assurance with a reliable social monitoring mechanism that regulates behaviors of sellers in the marketplace may be more effective for establishing consumer trust. In contrast, a system that provides reliable and accessible information on the personal integrity of sellers

would be more effective for establishing trust in American online markets, where agency is perceived to lie within the individual.

As mentioned in the Introduction (Section I.4), e-commerce researchers have debated whether findings from research on interpersonal trust can be generalized to trust in relationships that are built using new media technologies, such as an online market place (Shneiderman, 2000). In the current research, I found that previous findings regarding cultural differences in interpersonal trust (Yamagishi & Yamagishi, 1994; Yuki et al., 2005) also apply in e-commerce contexts. Presumably, consumers perceive the online market to be a microcosm of the society; any e-transaction that takes place in the market is construed to be an exchange between a buyer and a seller that takes place in a socially regulated communal space. This is why the consumers' construal of individual and group agency could have a significant impact on how consumers anticipate the behaviors of sellers in the on-line market.

III.5 Implications for future research

As in all studies, the current research has limitations. Although I tried to develop realistic scenarios of online purchase in the current research, given the hypothetical nature of these scenarios, future research is needed to replicate my findings in field studies that measure consumers' trust decisions in actual online purchases.

Additionally, it is still unclear whether the individual integrity and social monitoring cues affect purchase decisions because these cues lower the level of perceived risks or increase the level of trust despite the risks. Future research is needed to decipher how risk perception plays a role in the relative importance of integrity and social monitoring cues in risk evaluation. To test this idea, future research can manipulate the levels of perceived risk and test whether the trust-establishing cues affect purchase decisions independent of the risk manipulated.

III.6 Conclusion

Trust is important for lubricating social interactions and is a valuable social capital in economic transactions. How trust is established is culture-dependent. The present research deepens the understanding of the culture-trust relationship by unpacking the effect of culture on trust decisions. I show that cultural differences in how trust decisions are made depend in part on the shared agency beliefs people in the culture widely shared, which in turn orient individuals to consider different cues in judging the trustworthiness of a target person (seller) or a community (marketplace) to understand the interactions of individuals in their social ecology.

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