Cross Cultural Risk-Tolerance Self-Evaluation Bias:

Comparing South Koreans and Americans

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Summary. A sample of non-U.S. citizen South Koreans living in the United States ($n = 91$) and a somewhat smaller sample of Americans ($n = 62$) was used to test for cross-cultural self-evaluation bias in relation to financial risk tolerance. Using a residual self-evaluation assessment technique, it was determined that Koreans under-estimated, while Americans over-estimated, their tolerance for risk. Results from a regression analysis showed that Koreans had self-evaluation bias on the low side. Americans were shown to evaluate their risk tolerance too highly. Age was also statistically significant. Those who were older were more likely to have a predicted risk-tolerance score that was higher than their personal evaluation.

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The economic malaise caused by the sub-prime mortgage meltdown in the United States that occurred in 2008, resulting in the tightening of international credit markets, had significant global implications. In South Korea the impact was quite significant. According to Ihlwan (2008), the won, South Korea's currency, fell to a 10-year low in 2008 as a direct result of the global credit crunch. For the first time in decades, South Korea's trade account showed a deficit as Korean exports declined and imports of raw materials increased at high dollar denominated rates. This caused the central Korean bank to use U.S. dollar reserves in an effort to boost the won's value. At the household level, Korean investors lost billions of dollars due to collapsing equity markets in Korea and abroad. Ihlwan reported that "Investors are spooked over a global credit crisis that triggered the worst capital flight from Korea since Asia's financial meltdown in the late 1990s. The International Monetary Fund warned the world's major banks may need $675 billion in fresh capital over the next several years to recover from the credit crisis" (p. 1).

Of course, investment losses in Korea were not unique. Globally, losses in non-housing equity markets amounted to over $15 trillion, a figure that exceeded the Gross Domestic Product of the United States (Shinkle, 2008). Much of this decline in wealth was felt at the household level. One question that emerged from the financial meltdown asks how households could underestimate the risks of the markets to such a great extent. Had households' willingness to engage in investment activities with known risky outcomes matched their risk tolerance one would have expected less investor fear and panic when faced with declines in equity valuations. The fact that this was not the case may be indicative of a systematic risk-tolerance self-evaluation bias among individuals living in countries such as the United States and South Korea.

The descriptive and research evidence suggests the possibility that Americans overestimated their risk tolerance prior to the market collapse of 2008. Take, for example,

research conducted by Hsee and Weber (1999b) showing Americans typically predict that they are more risk seeking than they actually are. Whether this pattern of evaluation bias holds true cross nationally is a question that has not been fully explored in the literature (Fan & Xiao, 2006). Hsee and Weber did note that Chinese think their risk tolerance is less than it actually is, but it is unknown if other Asian nationalities resemble Americans or Chinese or if, say, Koreans are more accurate when estimating their risk-tolerance. In other words, it is not yet known if differences in risk tolerance are "universal or specific to particular cultural circumstances" (Coles, 1996, p. 2). Weber and Hsee (1999) argued that obtaining this knowledge is important. They contended that "considerable benefits can be derived from a fresh advocacy for comparative cross-cultural investigations of individual and group differences in perceptions, values, attitudes, and behavior" (p. 612). The purpose of this study was to test the ability of South Koreans and Americans to evaluate their financial risk tolerance. The outcome from this research is multifaceted. To begin with, findings can help determine if Koreans, as an Asian nationality with a free-market economy, are closer to Americans or Chinese in terms of risk tolerance. Results can also help provide insights into the potential causes of household financial behavior. Specifically, if a systematic pattern of self-evaluation bias is noted, and if such evaluations are different for Koreans and Americans, it may be possible to better understand how continued globalization might impact households in South Korea and the United States.

Review of Literature

Cross-National Differences in Risk Tolerance

One of the most important papers written about cross-national differences in risk assessment was composed by Hsee and Weber (1999b). Their study was conducted to test for "differences in choice-inferred risk preferences between Americans and Chinese" (p. 165). The

results of their study indicated that Americans were less inclined to seek risk than Chinese, but that when asked to predict risk tolerance, Chinese predicted that they would be less risk tolerant than Americans. In other words, Chinese self assessments revealed an evaluation bias where the predicted risk score was higher than the actual evaluation. This was particularly true in the domain of investments. While Hsee and Weber acknowledged that their findings might have been the artifact of measurement error, they concluded that findings were more likely a result of cultural differences between the United States and China. They, as well as Fan and Xiao (2006), found support for the 'Cushion Hypothesis,' which is a theory suggesting that households in collectivist cultures tend to provide "substantive material and financial assistance" (p. 172) for family members that take risks which eventually produce a financial loss (see Hsee & Weber, 1999a). In individualistic cultures, such as the United States, people are less likely to receive financial support and assistance from family, friends, or governmental agencies. As a result, "Because the Chinese have a larger close social network to count on when they need such financial support, the adverse outcome of a risky financial option may – objectively and subjectively – be less severe to Chinese than Americans" (p. 172). Whether or not the Cushion Hypothesis applies equally to South Koreans is a topic of interest, primarily as a mechanism to determine if Koreans are more similar to Americans or Chinese, as well as a way to test the robustness of the hypothesis.

Risk Tolerance Evaluation Bias

The literature devoted to how well individuals estimate or evaluate their own or someone else's opinion or attitude is quite large (Novicevic, Buckley, Harvey, & Fung, 2008). The literature focused exclusively on the accuracy of individuals in evaluating their own financial risk tolerance is, on the other hand, very limited. One important attempt to address this issue was

a study conducted by Furnham and Chamorro-Premuzic (2004). They found that individuals do a relatively good job of evaluating their own personality in relation to depression ($r = .58$), assertiveness ($r = .51$), and the need for achievement ($r = .45$), but when it comes to personality constructs similar in definition to risk attitude, people have a much more difficult time of evaluation. They noted that those in their sample were less able to estimate their own impulsivity ($r = .06$), vulnerability ($r = .16$), or excitement seeking ($r = .26$) when correlated to standardized scale measures.

Within the realm of risk-tolerance assessment, others have noted a tendency for evaluation bias. Hsee and Weber (1997) found that when a people compare themselves to hypothetical others they systematically under-estimate their own risk tolerance. Hallahan, Faff, and McKenzie (2004) reported that less than 5% of people are able to estimate their true risk tolerance when compared to scores on a risk-tolerance scale. In their study, nearly three-quarters of respondents tended to under-estimate their risk tolerance. Roszkowski and Grable (2005) looked at evaluation bias from three perspectives. First, how well financial planners were able to assess their own risk tolerance; second, how well financial planners were able to predict their client's actual risk tolerance; and third, how accurately clients of financial planners were in evaluating their own risk tolerance. Financial planners were found to estimate their own risk tolerance well, when compared to a valid and reliable scale ($r = .63$). Planners did less well in assessing the risk tolerance of their clients. What was most interesting though was how well clients did in evaluating their own risk tolerance. Clients were able to assess their risk tolerance at a very high level ($r = .77$).

Moreschi (2005) conducted a study to reevaluate the self-evaluation bias in assessed risk tolerance originally noted by Hallahan and associates (2004). Moreschi first asked respondents in

his study to evaluate their risk tolerance. He then asked respondents to complete a measurement of risk-tolerance. He calculated self-evaluation bias by subtracting the self-assessment score from the scale score. His results matched those of Hallahan et al. Nearly 75% of respondents under-estimated, while approximately one-quarter over-estimated, their risk tolerance. Grable and Roszkowski (2007) conducted a similar study by testing gender bias in risk-tolerance evaluation. They tested the hypothesis that men and women both exhibit evaluation bias but in opposite directions. Using a method similar to that of Moreschi, they found that women under-estimated and men over-estimated their risk tolerance when compared to a valid and reliable risk-tolerance scale. The nature of evaluation bias held true even when accounting for a person's age and level of household income.

Demographic Factors Associated with Risk Tolerance

Halek and Eisenhauer (2001) wrote one of the most sweeping reviews of demographic factors associated with risk tolerance (aversion). They used a regression model to test the effects of factors such as gender and age on a person's willingness to engage in speculative risk taking. They found that men were more risk tolerant than women and that older individuals were less willing to take risks than younger persons. This pattern of women exhibiting lower risk tolerance has been noted widely in the literature. A study by Yuen and Chen (2008) is of particular importance. They used a sample of Asians to study the determinants of investment risk tolerance. They found that female Asians had lower risk tolerance than Asian men. Weber, Siebenmorgen, and Weber (2005) noted that women tend to feel less competent when making judgments about asset return predictions. It is possible that a similar systematic gender bias may also be present when individuals self-evaluate their financial risk tolerance. Weber and Hsee (1999) argued that gender differences are "either partially or entirely the result of differences in the perception of

the riskiness of the choice options" (p. 615). They went on to state that one should not expect to see actual gender differences in risk-value tradeoffs. Stated another way, women tend to perceive risks as being higher than men, and as such, behave differently when faced with a risky choice (Brachinger, Schubert, Weber, Brown, & Gysler, 1997 as quoted in Weber & Hsee, 1999).

The relationship between age and risk tolerance is another association that has been studied. The relationship is complicated. In the majority of studies age is shown to be negative associated with risk tolerance. Older individuals are assumed to be less risk tolerant than younger individuals (Halek & Eisenhauer, 2001). Consider a study conducted by Wang and Hanna (2007). They used the Survey of Consumer Finances to show that a negative relationship between age and levels of risk aversion exists. According to Wang and Hanna, "The older the person was, the less likely he or she was willing to tolerate financial risk" (p. 10). This does not mean, however, that older people always exhibit less risky financial behavior. Older individuals – the same ones that scored lower on the risk-tolerance measure used by Wang and Hanna – were more likely to own stocks than others (see Finke & Huston, 2003). Yuen and Chen (2008), however, confirmed the general age-risk tolerance hypothesis with a sample of Asian respondents. In their study, a conditional probability of having a low risk tolerance, in the domain of investing, was noted for older individuals.

Household income is another factor generally thought to be associated with financial risk tolerance. Wang and Hanna (2007) noted that as household income increased, based on their analysis of the Survey of Consumer Finances data, "the likelihood of being willing to take risk increased" (p. 10). This was true at all three levels of risk-tolerance assessment (i.e., willing to take substantial, high, or some risk). Yuen and Chen (2008) noted a similar income-risk tolerance association. What was interesting in their study was the sample used to test the

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relationship. They used a sample of nearly 3,000 Hong Kong residents. Yuen and Chen found that the uppermost income respondents had the highest investment risk tolerance among this Asian sample.

A Conceptual Framework for Understanding Evaluation Bias

A relatively new discipline, known as behavioral finance, has developed as researchers have taken steps to blend behavioral, psychological, and financial concepts into a new field of study. An important assumption inherent in the conceptual framework of behavioral finance is the hypothesis that overconfidence in one's own ability to predict future actions and events leads to evaluation bias, even in situations where base rate probabilities are generally known (Nowell & Alston, 2007; Sitkin & Pablo, 1992). According to Griffin, Dunning, and Ross (1990), "Overconfident behavioral predictions and trait inferences may occur because people make inadequate allowance for the uncertainties of situational construal" (p. 1128). When making a personal subjective evaluation people most often fail to make an accurate assessment (Dunning, Griffin, Milojkovic, & Ross, 1990). Instead of making an evaluation that matches an objective measure, individuals tend to engage in evaluation bias that results in a subjective estimate that is too high or too low. They make this type of evaluation with confidence. Evaluation bias would not be a problem if outcomes associated with inaccurate evaluations were of no importance; however, this is generally not the case, particularly when individuals are making evaluations that have an impact on a household's finance situation. The overconfidence literature suggests one imposing implication for those interested in changing attitudes and behaviors. That is, once a subjective evaluation has been made, because of the confidence people have in their abilities, the evaluation is quite difficult to modify. It becomes awkward for a person to change their view of a situation or to alter their initial evaluation of a risk situation. This means, for example, that

individuals who systematically evaluate their risk tolerance too high or too low will continue to do so even when faced with changing odds or a significantly deteriorating market environment.

Conceptually, evaluation bias that results from overconfidence, is a cognitive predisposition (Plous, 1993). Evaluation bias is not something exhibited only by those sharing a lower socioeconomic or demographic profile. In fact, Plous noted that experts are as likely as non-experts to make inaccurate evaluations when faced with subjective probability choices. Evaluation bias of a subjective criterion most often is the result of interpreting a situation differently than an otherwise objective observer might (Lopes, 1997). A person's past experience, attained knowledge, and belief system influence situational interpretations (Griffin et al., 1990). That is, cultural norms and constraints play a role in shaping estimates of attitudes. As such, it is reasonable to hypothesize that an individual's cultural background, be it individualistic or collectivist, likely has an impact on the way a risk-tolerance assessment is made. Using the Cushion Hypothesis as a guide, one should expect to note significant differences between those from an individualistic culture and those from a collectivist culture in relation to evaluating financial risk tolerance.

Self-Evaluation Bias

The belief that evaluation bias exists, as a broad theoretical concept, stems from evidence showing that people tend to exhibit overconfidence in their ability to predict future actions and events. An important subset to this theoretical concept is the notion of self-evaluation bias. Self-evaluation bias can be defined as the deviation between a self-rating and a valid criterion (Kwan, John, Kenny, Bond, & Robins, 2004). When viewed from a social judgment perspective, self-evaluation bias results in either self-enhancement or self-effacement (Novicevic et al., 2008). That is, individuals tend to either evaluate their skills and abilities as greater or lesser than others.

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Consider research conducted by Barron and Sackett (2008). They noted that in Asia a 'modesty bias' exists. Japanese managers, for example, were found to engage in self-effacement evaluations, whereas managers in China and India were more likely enhance their evaluations of their abilities. Kudo and Numazaki (2003), on the other hand, failed to find any evidence of self-critical bias among the Japanese in their study. In relation to a person's willingness to engage in a risky financial behavior with known outcomes, some people tend to cognitively hold an above-average view of their risk tolerance. Others hold a below-average viewpoint (Grable & Roszkowski, 2007; Moreschi, 2005).

There are numerous ways in which self-evaluation bias can be measured. The normative approach typically asks survey respondents or experimental participants to compare themselves to a hypothetical other. According to Gramzow, Elliot, Asher, and McGregor (2003), this approach leads to an accuracy/exaggeration problem because comparisons to an average person do not "distinguish persons who are accurate in describing themselves from persons who are inaccurate" (p. 42). Another approach sometimes used to assess self-evaluation bias involves social consensus estimates. Using this approach, participants evaluate themselves on a series of psychological questions. Answers are then compared against expert observations of the participants. While eliminating accuracy/exaggeration problems, this method introduces its own bias, namely, discrepancies in inter-observer evaluations. A preferred strategy for assessing self-evaluation bias involves the use of self-criterion residuals (Paulhus & John, 1998). The residual approach relies on the use of an impartial criterion (e.g., scale, measure, or item) compared to a self evaluation, typically within a regression model. Specifically, the criterion is used to predict the self-evaluation score. A difference between the predicted and self-evaluated score indicates

bias. The residual approach "eliminates the possibility of a negative association between the criterion and the bias index" (Gramzow et al., 2003).

Self-evaluation bias, if it exists cross-culturally, creates a research puzzle. Why might people in Korea, for example, evaluate their risk tolerance differently than, say, Americans? The literature associated with general self-evaluation bias suggests that differences may be the result of some people wishing to 'cover up' their lack of personal financial competence. Bias might also arise because certain people wish to exhibit a need for achievement, which might lead to exaggeration of one's risk tolerance. These two examples illustrate the interconnection between self-evaluation bias and what is known as the Cushion Hypothesis. The Cushion Hypothesis states that individuals from collectivist societies act in a different way than those from individualistic cultures. In a collectivist culture, individuals are socialized to "define themselves mainly on the basis of their group memberships" (Chen, Brockner, & Katz, 1998, p. 1491). That is, exhibiting innocence in personal financial matters and reducing external images of self-enhancement may be valued personal attributes in collectivist's societies, whereas in an individualistic culture these same attributes may be looked down upon. The following discussion provides a review of the methodology used to test self-evaluation bias in this study.

Methodology

Sample Characteristics

A sample of convenience was used to obtain data for this study. The sample consisted of 153 respondents to a survey distributed among individuals from churches, libraries, and social organizations in one Midwestern city in the United States. The survey distribution was deliberately over-weighted to include a high proportion of non-U.S. citizen South Koreans living in the United States ($n = 91$) and a somewhat smaller sample of Americans, almost all of which

were non-Hispanic white ($n = 56$), African-American or of another racial/ethnic background ($n = 6$). The sample was purposely chosen to test for similarities and differences between Americans and their South Korean counterparts in the domain of consumer finance issues. Overall, the respondents were relatively young ($M = 35.36$; $SD = 11.70$ years) and well educated ($M = 14.46$ years of education; $SD = 6.10$ years). Less than one-half of respondents were male (42%) and nearly 60% were currently married. Household income was measured using a 10-point scale ranging from under $20,000 (i.e., level 1) and increasing in $10,000 increments to over $100,000 (i.e., level 10). Mean and median household income fell in the 4.0 range, suggesting that, on average, respondents incomes ranged from a low of $40,001 to a high of $50,000. In almost all respects, the Koreans and Americans in the sample were demographically similar. The only significant difference noted was that of education. Koreans reported 15.83 years of education whereas the Americans reported 12.44 years. The difference was statistically significant ($t_{1,142} = 3.39$, $p < .01$, two-tailed).

Measures

This study evaluated financial risk tolerance, or what has sometimes been called 'risk-attitude,' using two distinct measures. The first consisted of one of six subscales of the *Domain-Specific Risk-Attitude Scale* developed by Weber et al. (2002). The scale is generally known as the investment risk sub-scale. The scale consists of the following four items measured with the following five-point summated scoring codes: 1 = Very Unlikely, 2 = Unlikely, 3 = Not Sure, 4 = Likely, and 5 = Very Likely. The instructions for the scale are as follows: "For each of the following statements, please indicate your likelihood of engaging in each activity or behavior. Provide a rating from 1 to 5 …" (p. 288).

1. Investing 10% of your annual income in a moderate growth mutual fund.

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2. Investing 5% of your annual income in a very speculative stock.

3. Investing 5% of your annual income in a conservative stock.

4. Investing 10% of your annual income in government bonds (treasury bills).

On average, respondents scored 12.21 ($SD = 4.18$) on the measure. Americans scored higher ($M = 13.62$; $SD = 3.27$) than Koreans ($M = 12.21$; $SD = 4.18$). The difference in scores was statistically significant ($t_{1,148} = -3.48$, $p < .01$, two-tailed). The scale's reliability, as measured with Cronbach's alpha, was estimated to be .78, which was deemed acceptable for use in comparing Korean and American risk attitudes.

A self-evaluation risk-tolerance measure was used for comparison purposes. This one-item measure is the same as that tested by Grable, Roszkowski, Joo, O'Neill, and Lytton (in press). All respondents answered the following question:

In general, how would your best friend describe you as a risk taker?

(a) a real gambler

(b) willing to take risks after completing adequate research

(c) cautious

(d) a real risk avoider

Responses were coded (a) = 4, (b) = 3, (c) = 2, and (d) = 1. The measure was originally part of a longer scale developed by Grable and Lytton (1999). Grable and his associates found that the item was positively correlated with scores from a shortened version of the Grable and Lytton risk-tolerance scale (i.e., the correlation between the self rating and the summated scale score was .50 ($p < .001$)), suggesting that when used to measure risk attitudes, the item does a

reasonably good job of evaluation. The mean score for all respondents was 2.30 (*SD* = .70). Koreans scored 2.12 (*SD* = .68). Americans scored 2.56 (*SD* = .65). The mean difference between Koreans and Americans was statistically significant ($t_{1,147}$ = -3.89, *p* < .01, two-tailed).

One test variable and three control variables were included in the analysis. In addition to nationality (i.e., test variable), with Asians coded 1, otherwise 0, each respondent was categorized according to gender and coded 1 = male and 0 = female. Age was measured and used as a continuous variable, whereas household income was assumed to be equivalent to an interval level variable. That is, even though the measurement was presented to respondents in an ordinal way, it was determined that household income had a comparatively normal distribution, which, according to Knapp (1990), is a necessary condition for the use of an ordinal variable in a parametric test.

Data Analysis

This study employed a differential prediction method to test for risk-tolerance evaluation biases between Americans and Koreans. A residual risk-tolerance score was calculated for each respondent by first regressing respondents' self-estimated risk-tolerance scores from the Grable et al. (in press) item using a respondents' summated scores on the investment risk sub-scale (Weber et al., 2002). The unstandardized coefficient from the regression was saved for each person in the sample. The unstandardized coefficient was then subtracted from respondents' self-estimated risk tolerance score. The difference showed the level of each respondent's risk-tolerance self-evaluation bias (i.e., accurate, high, or low). Those with a positive score were classified as having too high of a risk-tolerance evaluation. A negative score indicated an inaccurate evaluation of risk tolerance on the low side, while a score of zero suggested an

accurate evaluation. Self-evaluation bias was tested using a t-test and a follow-up regression procedure.

Results

On average, Koreans under-estimated their financial risk tolerance ($M = -.13$). Americans over-estimated their tolerance for risk ($M = .20$). The mean difference in self-evaluation bias was statistically significant ($t_{1,147} = -2.99$, $p < .01$, two-tailed). As predicted by the Cushion Hypothesis, Koreans and Americans differed when evaluating their financial risk tolerance. That is, when compared to a valid and reliable scale score of risk tolerance, Koreans thought they were less risk tolerant than they actually were predicted to be, while Americans were exactly the opposite.

A follow-up regression was used to assess the level of self-evaluation bias by controlling for three known confounding factors associated with a person's tolerance for taking risk. As shown in Table 1, after controlling for age, gender, and household income, Koreans were still found to exhibit self-evaluation bias on the low side. Americans were shown to evaluate their risk tolerance too highly. Age was the only other statistically significant variable in the model. In this study, those who were older were more likely to have a predicted risk-tolerance score that was higher than their personal evaluation. Note that an age-squared variable was included in a secondary regression (not shown); however, the results were not significant and no improvement in the models R^2–value was noted.

Insert Table 1 About Here

Discussion

Why is this type of research important? To begin with, cross-cultural research, particularly in the area of risk analysis, helps create what Weber and Hsee (1999) called a "causal mosaic" (p. 612) of cross-national attitudes and behaviors. That is, the results from this study, when combined with similar studies, should help researchers identify evidence of possible cultural similarities and differences as effects on financial behavior. As globalization gains momentum in future decades of the 21st century it will be even more important to not only illustrate cultural differences but to also be able to predict such differences. There are three other reasons cross-cultural risk analysis research is important. First, as noted by Weber, Ames, and Blais (2004), studies of risk analysis help increase knowledge about financial decision making. Information about risk tolerance can be used to help describe why individuals in different cultural contexts make financial decisions differently. As an example, the pattern of self-evaluation bias by Americans in this study illuminates the possibility that the real risks inherent in the equity markets in 2008 were under-estimated by Americans. Koreans, on the other hand, may have had a better understanding of the risks as an outcome of experiencing the Asian financial crisis in the 1990's. Koreans, as a result, may have under-estimated their tolerance for financial risk. It is also possible that Koreans, as predicted by the Cushion Hypothesis, under-estimated their risk tolerance in response to cultural norms and an expectation that even if they invested in risk assets, any losses would be mitigated by support from family and national intermediaries.

Second, increased knowledge regarding relationships between and among financial risk tolerance, moderating variables, and financial decisions can help financial advisors, counselors, other help providers, and policy makers design and implement strategies to "aid or intervene" (Weber et al., 2004, p. 89) in the decision-making process. Finally, cross-cultural differences in

risk tolerance can help households better understand the processes used to implement financial decisions. According to Weber and her associates, "there is evidence that people are aware of the decision mode they and others use to make decisions …" (p. 89). If this is true, then financial risk-tolerance modeling can be used as a diagnostic cue to help households better understand how risk evaluation is influenced by cultural norms.

Future Research and Limitations

According to Novicevic et al. (2008), the study of self-evaluation bias will gain greater "importance as the decision-making environment becomes more complex or less familiar to the decision makers" (p. 1085). This is particularly true in relation to the personal financial management marketplace. The tumult following the global equity market collapse in 2008 highlights the importance of better understanding cross-cultural self-evaluation biases. How groups of people in one country or another reacted to similar external economic events revealed how significantly biases in risk tolerance could impact household wealth.

This study provides further evidence of cross-cultural self-evaluation bias. As indicated earlier in the paper, this finding creates a investigative puzzle that calls out for further research. The results from this study indicate that a self-evaluation bias, at least among those in the sample, exists. The research did not, however, specify why Koreans and Americans differed. Gramzow and his associates (2003) suggested that bias might stem from individual desires to conceal inadequacies or to exhibit a need for achievement. Findings from Chen et al.'s (1998) study hinted that this type of bias might be related to cultural influences. It is reasonable to hypothesize that both explanations play a role in accounting for cross-cultural biases; however, additional research is warranted to confirm this assertion.

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Future studies should not only account for the possible sample limitations inherent in this study (e.g., a small convenience sample), but also attempt to identify the underlying causal determinants of cross-cultural self-evaluation biases. Although the Cushion Hypothesis has been presented as a possible explanation, additional research is needed to test the robustness of the hypothesis. This might require a mixed-methods research approach, combining surveys and qualitative interviewing. In addition, a broadening of future samples to include not only Koreans, Chinese, or Japanese, as has traditionally been the case, but also Asians from diverse regions and cultural contexts would be very useful in better identifying cross-cultural differences. In summary, while this paper adds to the cross-cultural research mosaic (Weber & Hsee, 1999) by indicating self-evaluation risk tolerance bias among Koreans and Americans, more studies of this type are needed to be truly understand not only the bias but the implications of biases on household wealth.

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Table 1

Summary of Regression Analysis for Variables Associated with Financial Risk Tolerance

Variable	*B*	*SE B*	*β*
Age	-.011	.005	-.184*
Gender (1 = Male)	.008	.118	.006
Household Income	3.42E-006	.000	.053
South Korean	-.295	.120	-.210*
Constant	.578	.210	

Note. R^2 = .084. Adjusted R^2 = ..055 *p < .05.