

Antecedents of Cultural Intelligence: The Role of Risk, Control, and Openness in France and the United States

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We investigate the relationships between risk orientation, need for control and openness, on the one hand, and cultural intelligence on the other hand. Theory suggests positive relationships. Using survey data from the United States and France, we do find those positive relationships. Our study is the first we know of to test the link between risk orientation and cultural intelligence; it is only the second study of which we are aware to test the link between need for control and cultural intelligence. Finally, we also find our French respondents had a higher cultural intelligence than our American respondents, raising interesting questions for future research.

INTRODUCTION

One does not need to look hard to find examples where an individual's ability to work in environments characterized by culturally diverse individuals has resulted in failures to communicate and lost business opportunities. Often such dysfunction can result not only with a business executive operating in a foreign country, but increasingly can occur as well within the culturally diverse workforces that make up domestic operations (Rocksthul & Ng, 2008; Jassawalla et al, 2004). Businesses as a result increasingly need to give careful consideration to selecting and developing employees who have the cultural intelligence to successfully function in our globalized and multicultural world of business.

Cultural intelligence (CQ) is a relatively new theoretical concept. It has been defined by Earley and Ang (2003) as an individual's ability to engage successfully in diverse cultural environments. At the present time, researchers and business managers are continuing the effort to identify and define the individual characteristics which facilitate the ability of the individual to successfully navigate and succeed in culturally different environments ranging from expatriate assignments in a foreign country to those who will need to function in multicultural teams, or even teams of a relatively homogeneous cultural make up that are working on projects with multicultural implications. The objective of this paper is to examine three potentially important antecedents of cultural intelligence: openness to experience, the need for control, and risk orientation. These characteristics will be examined with university business students in the United States and France.

LITERATURE REVIEW

Cultural Intelligence

Cultural intelligence (CQ) is defined as a multidimensional construct that encompasses an individual's capability to function and manage effectively in culturally diverse settings (Earley & Ang, 2003). This definition can be seen to be consistent with Schmidt and Hunter's (2000: 3) definition of general intelligence "the ability to grasp and reason correctly with abstractions (concepts) and solve problems". It also can be seen as fitting the more global approach to intelligence as suggested by theories of practical and multiple intelligences (Sternberg & Wagner, 1986; Sternberg & Detterman, 1986). Cultural intelligence is not only seen as one of these "multiple intelligences", it is also seen as conceptually and measurably distinct from others such as general or analytical intelligence (IQ), social intelligence (SI), and emotional intelligence (EQ) (Elenkov and Pimentel, 2008) with a distinguishing characteristic that cultural intelligence applies to multiple cultural settings while dimensions of social and emotional intelligence may vary between different cultural setting (Thomas, 2006).

As conceived by Earley and Ang (2003) and developed by Van Dyne, Ang, and Koh (2008), the factors that make up the discrete construct of cultural intelligence (Total Cultural Intelligence or TCQ) include: Metacognitive CQ; Cognitive CQ; Motivational CQ; and Behavioral CQ. Metacognitive CQ refers to the conscious awareness an individual has regarding cultural interactions. Cognitive CQ is seen to reflect the knowledge of a group's values, beliefs, and norms. Motivational CQ reflects the capability to direct energy to learning about cultural differences. Finally, Behavioral CQ reflects the capability to choose appropriate verbal and physical actions when interacting with people of different cultures.

Research has suggested that cultural intelligence has an impact on cross-cultural adaptation (Ward & Fischer, 2008), task performance (Ang et al., 2007), trust within teams (Rockstuhl & Ng, 2008), group performance (Huber & Lewis, 2010), expatriate performance (Lee & Sukoco, 2010), and global leadership skills (Ng, Van Dyne & Ang, 2009). There are also a number of antecedents of cultural intelligence that have been identified and/or proposed. These include international travel, work experience, study abroad, and perceived self-efficacy (MacNab, B. & Worthley, 2011; Crowne, K. 2008), language skills, living in diverse cultural settings, cross-cultural work experience (Triandis, 2008), parental and educational experiences (Shannon & Begley, 2008), and personality (Ang & Van Dyne, 2008; Shaffer & Miller, 2008).

Openness, Risk Orientation, and Need for Control

It is well known in the Western-based literature that personality can predict behavior and performance (Barrick & Mount, 1991). While there is little agreement among psychologists as to the definition of personality, within the area of industrial and organizational psychology personality descriptions tend to focus on personality traits and the generally agreed upon structure of personality traits known as the "Big Five" (Heggstad, 2007). The Big Five framework has considerable support among a wide range of psychologists and has become the most widely used and extensively researched model of personality (Gosling, Rentfrow & Swann, 2003). McCrae and Costa (1987) labeled the five trait dimensions as: neuroticism versus emotional stability; extraversion or surgency; openness to experience; agreeableness versus antagonism; and conscientiousness versus undirectedness.

Ang & Van Dyne (2008) have suggested that some of the Big Five personality dimensions could be antecedents of cultural intelligence, and researchers have also concluded that the relationship between cultural intelligence and personality is a key issue for the theoretical and empirical precision of cultural intelligence research (Ward & Fischer, 2008). Klafehn et al., (2008) and Triandis (2008) suggested one personality dimension in particular, openness to experience (referred to in this paper as "openness"), may reduce the negative effects of an individual's interaction with different cultures and thus contribute to a higher cultural intelligence. According to McCrae & Costa (1987) and Oolders, Chernyshenko & Stark (2008) openness includes traits such as being curious, imaginative and excitable; having wide interests; being artistic; and being unconventional; as well as high levels of intellectual efficiency, tolerance, flexibility, depth, and ingenuity. Ang, Van Dyne & Koh (2006) found that of the Big Five dimensions,

openness had the strongest connection by directly impacting all four factors of total cultural intelligence. Thus the first hypothesis of this study is:

H1: Openness will have a significant positive influence on the subject's level of cultural intelligence.

It is believed that risk orientation is an important factor in many aspects of managerial behavior and that risk itself is most commonly conceived as reflecting variation in the distribution of variable outcomes (March & Shapira, 1987). When working with individuals from cultures very different from her or his own, an employee may perceive varying degrees of risk associated with decisions impacting social interaction and communication, with the results of such communication decisions having such variable outcomes. The degree to which individuals accept such risks tends to be a relatively stable feature of the individual's personality and conventional decision theory suggests that a decision such as choosing to interact with a person from a very different culture involves to some degree the individual perception of the trade-off between risk and expected return (March & Shapira, 1987). The greater the perceived benefit from taking a risk, the more likely the individual is to take it (Denrell, 2007). Cultural intelligence is a learned ability (Klafaehn, et al., 2008; Tarique & Takeuchi, 2008) and it has been suggested that one's risk orientation plays an important role in learning and cognitive development (Lundeberg & Moch, 1995). This seems to suggest that individuals with higher cultural intelligence would seem to perceive the benefits of taking the risks necessary to learn how to interact with people from different cultures. We are not aware of any other study that has examined risk orientation as a potential antecedent of cultural intelligence. Therefore:

H2: Risk orientation will have a significant positive influence on the subject's level of cultural intelligence.

Need for control has been defined as an individual's desire and intent to exert influence over situations in which a person operates, and can be seen as basic and universal (Tay, Westman & Chia, 2008). The need for control may manifest itself as the desire for mastery over one's environment (DeCharmes, 1968). For those people in business setting such a desire may lead them to want the ability to function smoothly and successfully in multicultural settings, and in fact Tay et al. (2008) found the need for control to have a significant positive relationship with cultural intelligence with a sample of short-term business travelers. To date, this is the only study we can find that addresses directly the relationship of need for control and cultural intelligence. Therefore:

H3: The need for control will have a significant positive influence on the subject's level of cultural intelligence.

METHODOLOGY

France and the United States were chosen for an initial analysis. According to House, Hanges, Javidan, Dorfman & Gupta (2004), the two countries are in distinctly different regional cultural clusters: the Latin European cluster for France and the Anglo cluster for the United States. They were also chosen due to the ability of the same researcher to gather data, thus helping to assure a common method which was classroom administered and required a non-specific introduction to the subjects suggesting a general cross-country study examining various individual characteristics of university business students. While participation in the survey was voluntary, all subjects present chose to participate. One university in each country was used in this study with the target population being upper level undergraduate as well as first or second year graduate business students in both universities. For each country, only responses from citizens of that country were used. Consequently, seven surveys completed by non-U.S. citizens were dropped from the U.S. data, and 41 surveys completed by non-French citizens were dropped from the

French data. When answering the biographical question regarding year in university, the year of university question options in France included the two years of post high school university preparation as taken by the subjects (thus the French student was expected to be a little older than the U.S. student). The result was a sample of 166 subjects from the U.S. and 113 from France (see Table 1, below, for details).

Cultural intelligence was measured using the self-report instrument developed and validated by Van Dyne, Ang & Koh (2008). During their validation process they identified the 20 items with the strongest psychometric properties with a Chi-square of 822.26 (164 *df*), CFI of 0.92 and RMSEA of 0.08. Nested model comparisons demonstrated the superiority of the hypothesized four-factor CQ model. The instrument was then tested for generalizability across samples, and analysis using structured equation modeling (SEM) demonstrated good fit also finding acceptable Cronbach's alphas along with Chi-Square of 381.28, CFI of .96, and RMSEA of .05. They also completed an analysis of generalizability across time, generalizability across countries, generalizability across methods (observer report and self-report), as well as discriminant validity, incremental validity, and predictive validity (with cultural decision-making, interactional adjustment, and mental well-being as dependent variables). The study concludes that the construct appears to have a clear, robust, and meaningful structure. Shannon & Begley (2008) confirmed the psychometric properties of the Van Dyne, Ang & Koh (2008) model to be stable. Factor analysis (Principal Component & Varimax Rotation with Kaiser Normalization) done on this sample also confirmed satisfactory psychometric properties (see Table 2, below).

Openness was measured using a Big Five personality scale developed by Gosling et al. (2003) who point out that the Big Five structure enjoys considerable support among international psychologists. The research of these international psychologists has resulted in a range of instruments with as many as 240 item scales to as few as 5 item scales that can be used depending on a number of factors including: the purpose or objective of administering the instrument (diagnoses of a suspected psychological illness or general employment selection process); the need for very high levels of psychometric preciseness; and the concern of the researcher over the length of the questionnaire being administered and possible subject concentration and fatigue. Gosling et al. (2003) developed and tested the 10 item measurement used in this current study and found satisfactory convergent validity with the often-used and highly-regarded Big Five Inventory (BFI) of John & Srivastava (1999). They point out the BFI in turn shows high convergent validity with other self-report scales and peer rating scales of the Big Five. They also found the 10-item scale (TIPI) to have test-retest reliability, satisfactory patterns of predicted external correlations, and convergence between self-rated and observer ratings. Factor analysis (Principal Component & Varimax Rotation with Kaiser Normalization) using this sample confirmed satisfactory structural properties (see Table 3, below).

Since pilot tests of the instrument in this current study took subjects between 25 and 30 minutes to complete, we were concerned about subject fatigue. Consequently, we took Gosling et al.'s (2003) recommendation to use this 10-item instrument (TIPI) in such a situation. Thus two items were used to measure openness and were based on the extent to which the **pair** of traits is seen to apply to the subject (1 = strongly disagree to 7=strongly agree). The two items were: Question 5. Open to new experiences, complex; Question 10. Conventional, uncreative (reverse scored).

The need for control was measured using questions from the Tay et al. (2008) study. Three questions were used in the survey, however factor analysis (Principal Component & Varimax Rotation with Kaiser Normalization) suggested that one of the three questions did not load with the other two and was therefore dropped from this analysis. The remaining two questions (see Table 3, below) were "To what extent are you able to initiate various things in your daily work?", and "To what extent is it important to you to determine the way your work is done?" (1=very little extent; 6= very great extent).

Risk orientation was measured using two questions: "To what extent are you comfortable not knowing what the outcome will be of an action you have taken?" and "To what extent are you willing to take a calculated moderated risk to get ahead?" (Segal, Borgia & Schoenfield, 2005). Factor analysis (Principal Component & Varimax Rotation with Kaiser Normalization) using this sample suggested satisfactory structure (see Table 3, below).

Cronbach's alpha was used to examine internal reliability with all variables having satisfactory scores of between 0.69 and 0.76.

Finally, Age, Gender and Country were introduced into the model as control variables. Age was simply the age of the respondent. We suggest that Age might be positively related to cultural intelligence, as a person's age may be a proxy for experiences that could engender greater cultural intelligence. Gender was a dummy variable scored 1 if the respondent was a woman and 0 if the respondent was a man. We do not suggest a statistically significant relationship between a Gender and Total Cultural Intelligence. Country was a dummy variable scored 1 if the respondent was French and 0 if the respondent was from the United States. We suspect that the greater proximity of French students to other countries might lead them to have a higher cultural intelligence, and so we suggest a potential positive relationship between Country and Total Cultural Intelligence.

RESULTS

As can be seen in Table 1, data from a total of 279 subjects were used in this study with 166 subjects from the United States and 113 subjects from France. While the number of women was the same in both countries the number of men in France (42) was considerably smaller than in the U.S. (95). With the average age of 22.8 the country differences reflected the typical trend of French students being slightly older (1.8 years) due to many of the students having attended a two year preparatory program prior to their going to the private university from which the data were collected.

TABLE 1
SUBJECT STATISTICS

	France	USA	Total
Men	42	95	137
Women	71	71	142
Total	113	166	279
Age	23.5	21.7	22.8
Univ. yrs.	4.0	3.6	3.8

Table 2 confirms previous studies indicating the acceptable factor loading for each of the four cultural intelligence dimensions. Table 3, as discussed above, shows acceptable factor loadings to identify and confirm the independent variable items used in this study.

Table 4 indicates the variable correlations suggesting significant correlations between each of the independent variables and Total Cultural Intelligence (TCQ) as well as suggesting significant correlations between the Need for Control (or "Control") and the other two independent variables (Risk Orientation, or "Risk" and Openness to Experience, or "Openness"). The strength of the relationship between the dependent variable (Cultural Intelligence) and each of the independent variables (Openness, Risk, Control) will therefore be attenuated by the correlation among the independent variables, as greater correlation results in higher variance and so a lower t-test statistic result (Kmenta, 1986).

TABLE 2
FACTOR ANALYSIS: CQ COMPONENTS (TOTAL SAMPLE*)

	MetaCognitive	Cognitive	Motivational	Behavioral
Q1	.818			
Q5	.391			
Q9	.611			
Q13	.345			
Q2		.578		
Q6		.350		
Q10		.726		
Q14		.570		
Q17		.724		
Q20		.649		
Q3			.781	
Q7			.509	
Q11			.616	
Q15			.780	
Q18			.440	
Q4				.608
Q8				.675
Q12				.660
Q16				.718
Q19				.671

*individual country results did not indicate any significant differences

TABLE 3
FACTOR ANALYSIS: INDEPENDENT VARIABLES (TOTAL SAMPLE*)

	Risk	Control	Openness
Q21	.560		
Q31	.784		
Q25		.575	
Q28		.500	
Q42			.514
Q47			.752

*individual country results did not indicate any significant differences

TABLE 4
DESCRIPTIVE STATISTICS AND CORRELATIONS

	Mean	SD	TCQ	Openness	Risk	Control
TCQ	4.50	0.75	1			
Openness	5.46	1.04	.122*	1		
Risk	3.49	0.76	.157**	-.021	1	
Control	4.57	0.69	.241**	.180**	.244**	1

*p>.05; **p>.01

Table 5 summarizes the hierarchical ordinary least-squares regression results. Using standardized betas, the table shows that Age and Gender effects were not significant in any of the 5 steps. Age and Gender are both highly correlated (coefficients of 0.214 and 0.200) with Country, and Gender is also correlated with Risk (coefficient of -0.141), which may explain why they are not statistically significant.

TABLE 5
HIERARCHICAL OLS REGRESSION RESULTS

	Step 1 <i>beta</i>	Step 2 <i>beta</i>	Step 3 <i>beta</i>	Step 4 <i>beta</i>	Step 5 <i>Beta</i>
Age	.019	.013	.009	.010	.041
Gender	.000	-.041	-.078	-.047	-.025
Country		.241**	.174**	.274**	.347***
Openness			.237***	.160***	.127**
Risk				.010*	.119*
Control					.181**
Dependent Variable	TCQ	TCQ	TCQ	TCQ	TCQ
Adj. R^2	.00	.024*	.080***	.091***	.109***
F -score	1.60	3.28	7.00	6.20	6.42
Δ Adj. R^2	.0	.024**	.056***	.011*	.018*

* $p > .05$; ** $p > .01$; *** $p > .001$

We investigated the control variables a bit further. For Age, we find a more interesting story than suggested by the reported regression results. Age is correlated with Total Cultural Intelligence (correlation coefficient of 0.108). In addition, when Total Cultural Intelligence was regressed only against Age (to avoid problems of correlations with other independent variables) the results were promising even given the skewed range of ages in this sample (250 of the 279 respondents, or 90%, are aged 18 to 25): the Adjusted R^2 of the model was only 0.01 but the parameter estimate for Age was positive and statistically significant at the 0.036 level (one-sided). Most interesting, though, was a comparison of means of Total Cultural Intelligence for two groups at opposite ends of the age spectrum: (1) students aged 25 to 49 (there were 47 of them) and (2) students aged 18 and 19 (there were 49 of them). The middle group, those aged 20 to 24, constituted the bulk of the respondents. We find that the oldest group had an average Total Cultural Intelligence score of 4.709 while the youngest group had an average score of 4.162. A t-test comparison of means shows that these are statistically different at the 0.001 two-sided level, and so the oldest group has a higher cultural intelligence than the youngest group and age is positively related to cultural intelligence.

Gender has almost a 0 correlation with Cultural Intelligence: a correlation coefficient of 0.005; and when Cultural Intelligence was regressed only against Gender (again, to avoid problems of correlations with other independent variables) the Adjusted R^2 was -0.004.

The Country control variable was found to be significant when included with the other two control variables and also in each step where each of the independent variables was added, even given its correlation with Control (coefficient of -0.217). This is particularly impressive given its inter-correlations, which generally reduce statistical significance by increasing the variance of the estimate. Thus Country alone explained a small but significant ($p < .01$) 2.4% of the variance of Total Cultural Intelligence. As we conjectured, the French students had a higher cultural intelligence than students from the United States.

The order in which the independent study variables were introduced into the model was identified using stepwise regression. The personality variable of Openness to Experiences increased the variance explained by the model from 0.024 with just the three control variables, to 8% with the resultant change

in Adjusted R² being significant (p<0.001). The final two independent variables of Risk Orientation and Need for Control increased the percentage on variance explained to 9.1% (p<0.05) and 10.9% (p<0.05) respectively. Collinearity between model elements was examined using variance inflationary factor analysis and results found no evidence of significant collinearity with VIF scores of between 1.0 and 1.6. Scores of less than 5 are generally considered to reflect no significant collinearity (Levine et al., 2005).

Finally, a comparison of means between countries was completed (see Table 6) indicating – as suggested by the regression analysis – a significant difference (p=0.002) between Total Cultural Intelligence means with France at 4.65 and the U.S. at 4.39. Also, we find that the Need for Control was significantly higher (p=.000) in the U.S. (4.75) than in France (4.40), while the analysis suggests no significant difference between the countries in the means of Openness to Experience and Risk Orientation.

TABLE 6
COMPARISON OF MEANS
(*t*-tests assuming unequal variances)

	TCQ US(FR)	Openness US(FR)	Risk US(FR)	Control US(FR)
Means	4.39(4.65)	5.47(5.44)	3.0(2.89)	4.75(4.40)
Standard Deviation	.72(.70)	1.00(1.10)	1.02(.94)	.70(8.1)
<i>t</i> -stat (one-way)	-2.89	0.234	0.894	3.60
Significance	.002	.408	.186	.000

DISCUSSION

Implications for Management

Control Variables

Starting with our control variables, Age offers some interesting results – as noted above – that warrant further research. We argued above that with age comes greater experience and so perhaps greater exposure to cultural issues and differences. But, that is an empirical question. While we found the oldest group had higher Total Cultural Intelligence on average than did the youngest group, we also found some counter-intuitive results: (1) some of the lowest TCQ scores of all were found in the oldest group; (2) amongst the youngest group, seven of them scored above 5.000 and the top 23 averaged the same score as the entire oldest group. So, this would appear to be an argument for management to hire older workers, or to search among younger potential hires for those who have had the experiences to increase their cultural intelligence.

For the second control variable, apparently an individual's cultural intelligence does not vary with Gender. At least among these groups of respondents, the cultural intelligence of men and women was the same.

For the last control variable, Country of origin, we found that the French respondents had higher cultural intelligence. Two reasonable explanations are (1) France's proximity to other countries and so the likelihood that the French respondents have traveled more and gained greater cultural intelligence as a result; and (2) the likelihood that there are more international students in the French classroom and so – even though the respondents were limited to French citizens – the French students had a greater opportunity to gain cultural intelligence through interaction with those peers; or perhaps the formal education process at the two universities which address the elements of cultural intelligence differed. From a hiring standpoint, potential employees who have traveled more and interacted more with those from other cultures will more likely have greater cultural intelligence. From a development standpoint, careful integration of employees into cross-cultural teams, and proper management of those teams, could

help employees to improve their cultural intelligence and so do a better job with other employees, customers, stakeholders, *et cetera*.

Openness to Experience

The first of our independent variables of interest is Openness to Experience, and we found the hypothesized positive relationship with cultural intelligence. In seeking to hire and develop employees with greater cultural intelligence, companies should examine – via formal testing (Big Five personality test) or specific related interview questions – the degree to which this personality characteristic might exist. It might also be of interest to examine the degree of international experience such as whether or not the recent university graduate studied abroad, was it in England or Australia, or was it in Senegal or Thailand? For American or even French job applicants, the latter set of countries may suggest a greater openness to experience and so probably a greater cultural intelligence.

Risk Orientation

We found a moderate Risk Orientation to be positively related to Total Cultural Intelligence, as hypothesized. Higher cultural intelligence is a desirable trait even for domestically-oriented firms given the growing multi-cultural nature of the U.S. customer base. It appears, therefore, that companies should hire applicants with a greater moderate risk orientation – those who ran lemonade stands when they were kids or who majored in entrepreneurship – and should institute training programs within their companies to develop a greater risk orientation among their existing staff (what used to be called intrapreneurship (Pinchot, 1985)).

Need for Control

We found a positive relationship between Need for Control and Total Cultural Intelligence, as hypothesized. People who have a need to be in control of a situation are more apt to have a higher cultural intelligence, as knowing more about the situation leaves them feeling more in control of it. Companies may seek to hire or develop employees who have experience in leadership roles.

Implications for Researchers

Control Variables

As we noted above, Age offers some interesting results that warrant further research. We found the oldest group of respondents had higher Total Cultural Intelligence on average than did the youngest group, but also that some of the lowest scores of all respondents occurred in the oldest group and that some of the respondents in the youngest group had very high scores. While the numbers in these groups are small, they do suggest that education or other experiences that come with age may make a difference and future research should attempt to identify these moderating or mediating experiences. This seems a promising line of research for the future.

For the second control variable, apparently an individual's cultural intelligence does not vary with gender. At least among these groups of respondents, the cultural intelligence of men and women was the same. Future research could further test this hypothesis across different respondent traits such as age, and also across different countries.

For the last control variable, Country of Origin, we found that the French respondents had higher cultural intelligence. Again, researchers could investigate this relationship using the U.S. and France but along different respondent dimensions such as age – at what age do the French develop a greater cultural intelligence than Americans; what is it in their experiences that lead to the development of greater cultural intelligence? Are there informal or even formal institutional factors that contribute to this difference?

Openness to Experience

In support of Ang et al. (2006) who tested Singaporean university students, we also found a positive relationship between openness and cultural intelligence in the U.S. and France. Further research could test this relationship in other countries or along other respondent traits. Another line for future research could

be to investigate the relationship directly between various antecedents of openness (e.g., as suggested by McCrae & Costa (1987) and Oolders et al. (2008), curiosity, imagination, artistic ability, breadth of interests, originality) and cultural intelligence.

Risk Orientation

Previous research has not directly tested the relationship between risk orientation and cultural intelligence, so this is a key contribution of this research study. As hypothesized, we found a positive relationship – greater risk orientation is associated with greater cultural intelligence. But, our findings raise an interesting question: France and the U.S. are fairly risk-loving relative to countries such as Russia or Hungary or Guatemala (as found by the GLOBE study of House et al., 2004). Do our findings mean that, on average, Russians and Hungarians have lower cultural intelligence than Americans and the French? This could be a fruitful line of inquiry.

Need for Control

We find a positive relationship between need for control and cultural intelligence. This supports Tay et al.'s (2008) study which used short-term business travelers from Singapore, Brazil, and Israel. To these groups it appears we may now add university business students from the United States and France. To the best of our knowledge these are the only two studies to examine this relationship. Potential future research could focus on respondents who are not in business – the proverbial man/woman on the street, non-business students, working adults in non-business fields, etc.

Caveats

Our study comes with at least four caveats. The first two, the limitation of these two countries and the limitation of these respondent samples, were dealt with earlier in the discussion. Third, is the fact that the R^2 values of our model results are small (but significant). Given the reasonably strong statistical significance of four of the six parameter estimates, this suggests the need to consider whether the model might be under-specified and, if so, what variables might be missing from it. And fourth, is the question of robustness of the findings to different variable operationalizations. The instruments we used to operationalize our independent variables have a limited number of items as we tried to be respectful of the time commitment necessary to complete the surveys given the circumstances in which they were given. Future research using longer survey instruments would test the robustness of the relationships.

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