

## Attitudes towards Internationalism through the Lens of Cognitive Effort, Global Mindset, and Cultural Intelligence

Joan Romano and Judith Platania<sup>1</sup>  
*Roger Williams University*

In the current study we examine attitudes towards internationalism through the lens of a specific set of constructs necessary in defining an effective global leader. One hundred fifty-nine undergraduates responded to items measuring need for cognition, cultural intelligence, and a set of items measuring the correlates of global mindset. In addition, they provided their attitudes on items measuring internationalism. A series of linear regression analyses revealed cultural intelligence, need for cognition and traveling abroad predicted students' preference for working full-time in a foreign country. In addition, underclassmen were more likely to endorse the notion that the US culture is superior to other cultures compared to upperclassmen. Results support the importance of exposure to a diverse curriculum in shaping undergraduate students' global mindset.

*Keywords:* global mindset, cultural intelligence, need for cognition, internationalism

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<sup>1</sup> Joan Romano, M.S., Registrar, Roger Williams University, Bristol, RI 02909 [jromano@rwu.edu](mailto:jromano@rwu.edu) 401 254-3159.  
Judith Platania, Ph.D., Professor of Psychology, Roger Williams University, Bristol, RI 02809 [jplatania@rwu.edu](mailto:jplatania@rwu.edu)  
401 254-5738.

The framework for this study was conceived from theoretical and empirical research, which states that individuals with a highly developed global mindset are significantly more likely to express open attitudes and respect toward other cultures compared to those who do not (Osland & Bird, 2006). This research has included many studies examining correlations between the construct of global mindset and other constructs such as cultural intelligence, cognition, and diversity self-awareness (e.g., Beechler & Javidan, 2007; Klein & Hoffman, 1992; Osland, Bird, Mendenhall, & Osland, 2006). These studies generally converge on the notion that specific concepts are necessary in operationalizing global mindset. To date however, no study has examined the combined ability of cognitive effort, global mindset, and cultural intelligence to predict individuals' recognition and appreciation of diversity in culture. As a result, in the current study we examine the predictive utility of each of these three individual difference variables on individuals' attitudes towards internationalism<sup>2</sup>. By assessing an individual's need for cognition in this context we can begin to evaluate the extent to which the tendency to apply cognitive effort helps explain one's recognition and appreciation of cultural diversity.

### **Global Leadership**

Global leaders have been defined as professional individuals skilled at functioning in a variety of multicultural contexts (Rabotin, 2008). Specifically, the global leader is adept at interpreting and evaluating various aspects of the complex world of globalism. In addition, a global leader must be open to the norms and behaviors of other cultures. They are able to accommodate and/or change strategies for communication depending on the cultural context (Tuleja, 2014). These abilities help to facilitate a shared vision and common goals among multicultural counterparts (Osland et al.,

2006). According to Klein and Hoffman (1992), the global leader must possess an elevated capacity for mental flexibility allowing for the ability to solve complex problems that may emerge from the cultural arena. Similarly, Osland and Bird (2006) state that the complexities of global leadership must include a greater need for cultural understanding; a heightened desire for a broader knowledge base; and openness to strategize challenging ethical dilemmas. As a result, a successful global leader must possess the temperament and exhibit the behavior necessary to successfully influence individuals in a multicultural context.

One of the attributes a global leader must possess is intercultural competence, or cultural intelligence, referred to as CQ (Earley & Ang, 2003; Ng, Van Dyne, & Ang, 2009). Cultural intelligence has been defined as an individual difference characteristic that identifies the ability of an individual to function competently in a culturally diverse environment (Ang, Van Dyne, & Koh, 2005). The construct of cultural intelligence includes three components necessary for competent intercultural interaction: cognitive, motivational, and behavioral. Existing research has found that CQ is related to other types of intelligences, such as social and emotional intelligence (Crowne, 2013; 2008; Moon, 2010). Interestingly, the premise for a study conducted by Tuleja (2014), was the fact that the concept of *mindfulness* was key in understanding the relation between cultural knowledge and behavioral skills. Mindfulness has been defined as a reflexive, deliberative activity, essential to the development of a global leader (Thomas, 2006). Applying the concept of mindfulness in the context of a cross-cultural immersion experience, Tuleja observed significant improvements in students' understanding of many aspects of the Chinese culture after participation in the immersion experience. In the current study we examine individuals' recognition and appreciation of cultural diversity (referred to as *internationalism*) through the lens of a specific set of constructs necessary in defining an effective global leader. Our primary research question focuses on whether and to what extent attitudes towards internationalism rely on cognitive effort. We frame this research

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<sup>2</sup> In the current study, we adopted Clarke's (2004) operational definition of internationalism, which was framed in terms of the *affective domain* (p. 56) of students' curriculum. In addition, the items assessing attitudes towards internationalism as well as global awareness were also adopted from Clarke (2004).

question in the context of cultural intelligence and global mindset. By providing an assessment of how individuals process culturally relevant information, we can add to the literature on the role of individual difference characteristics when forming cultural judgments (see Chen & Lin, 2013; Klafehn, Li, & Chiu, 2013).

In order to measure the construct of cultural intelligence, Van Dyne and Ang (2004) developed the 20-Item Four Factor Cultural Intelligence Scale (CQS<sup>3</sup>). The four factors include CQ strategy, knowledge, motivation, and behavior. CQ strategy reflects the processes individuals use to acquire and understand cultural knowledge. CQ knowledge measures an individual's understanding of the similarities and differences associated with cultures. CQ motivation indicates the energy and attention individuals direct towards learning about other cultures. The last category, CQ behavior, measures an individual's ability to adapt language and behavior to fit cultural appropriateness. The goal of the CQS is to establish that individuals with increased levels of cultural intelligence are significantly more effective at inter-cultural decision-making compared to their lower scoring counterpart. Research has demonstrated the significant contribution of CQ to successful global relationships. For example, CQ has been found to be related to emotional intelligence and increased self-concept (Earley & Ang, 2003). In addition, Oolders, Chernyshenko and Stark (2008) found relationships between intellectual efficacy, ingenuity, curiosity and flexibility to the overall measure of CQ. In a cohort of university students studying abroad - including foreign students studying in the US as well as US students studying in foreign countries, Fehr and Kuo (2008) found cultural intelligence explained almost 16% of the variability in individuals' experiences with their multicultural network of friends. This finding was in addition

to other predictors such as gender, previous international experience, and openness to experience. In sum, empirical research in CQ strongly supports the distinctiveness of the contribution of cultural intelligence to the effectiveness of global leaders.

Global mindset has also been conceptualized as an essential trait, necessary for effective global leadership (see Gupta & Govindarajan, 2002). According to Beechler and Javidan (2007), a psychological framework exists within the construct of global leadership, which defines the structure of the global mindset. Specifically, they attribute a select set of individual attributes to global leaders that they have conceptualized as intellectual, psychological, and social capital. Individuals proficient in each of these areas have been shown to demonstrate competence as a global leader. In order to measure global mindset, Javidan and colleagues developed the Global Mindset Inventory (GMI). Other researchers have confirmed this construct by finding that individuals possessing a global mindset are cognizant of diversity across businesses and cultures. More importantly, they have the ability to utilize this awareness in culturally appropriate ways (Gupta & Govindarajan, 2002; Lane & Maznevski, 2004). In a review of the global leadership literature, Jokinen (2004) acknowledged the importance of various skills when conceptualizing global leadership. Specifically, the ability to manage cognitively complex situations in the global arena is identified as key to effective global leadership. Interestingly, other researchers (Wills & Barham, 1994) have also identified "cognitive complexity" as the most important competence of international managers. In addition, individuals possessing this ability are better prepared to address these complexities compared to those who do not. Thus, the ability to conceptualize complex global issues is important in understanding the complexities of cultural environment.

One way to assess cognitive effort is through a measure of need for cognition (NFC). Need for cognition (NFC) is conceptualized as a personality characteristic that considers how individuals process information (Cacioppo & Petty, 1982; Cacioppo, Petty, & Kao, 1984). There is a considerable body of research

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addressing individuals' need for cognition in many different empirical paradigms. The studies appear to converge on the notion that individuals reported to possess a high need for cognition process information more intensively compared to individuals low in need for cognition. For example, need for cognition has been found to moderate the relation between task difficulty and performance (Reinhard & Dickhauser, 2009). In a pyramid-building task, researchers found that undergraduates' NFC influenced their perceptions of level of difficulty associated with the task. Specifically, undergraduates with a high need for cognition reported greater levels of performance expectancy compared to undergraduates lower in need for cognition. In a similar study, Bruch, Juster, and Heisler (1982), investigated how individuals recognize and adjust their thinking to affectively loaded situations. In addition, they investigated the extent to which appraisals of future scenarios were affected by faulty thinking. High NFC undergraduates were significantly more likely to report internal attributions compared to low NFC undergraduates. More specific to the current study, Carnevale, Inbar, and Lerner (2011), investigated the role of need for cognition in a decision-making paradigm. In a sample of individuals in leadership positions, the researchers found significant correlations between participants' scores on the NFC scale and two of the four domains of the Adult Decision-Making Competence Scale (A-DMC; Bruine de Bruin, Parker, & Fischhoff, B., 2007). Individuals higher in need for cognition were less susceptible to framing effects compared to their lower scoring counterpart. In the context of the A-DMC, framing was measured as the difference scores for two problems described differently but presented to participants as equal in terms of value, defined as a gain or loss frame. They also observed a correlation between NFC and resistance to sunk costs. High need for cognition individuals were likely to ignore past expenditures when considering future financial options compared to low need for cognition participants.

There is noticeably little research however, examining the specific role of need for cognition in assessing issues related to global awareness, cultural diversity and general attitudes towards

internationalism. The existing research appears to focus on the relation between NFC and racism with one (dated) study finding an inverse relation between NFC and a measure of modern racism (Waller, 1993). Similarly, a more recent study found college students' prejudicial attitudes were lower as a function of exposure to a diversity course. This finding was also observed for students with a high need for cognition (Hogan & Mallot, 2005).

Considering the importance of a global mindset to the emergence and development of a multicultural business network, it is critical to examine the cultural competencies of our next generation of leaders. With that said, the role of education in global awareness stimulates the social responsibility of developing global citizenship and global leadership (Clarke, 2004). According to a document published by the Association of American Colleges and Universities (McTighe-Musil, 2006), "Educating students for a global future is no longer elective" (p. 1). Among other competencies, global knowledge has been identified as a major component of a twenty-first century education. The American Council on Education (ACE; 2012) reported that although the percentage of colleges and universities requiring undergraduate courses that focus on global issues has increased over the last five years (24 to 28 percent), the percentage that require undergraduates to take courses that "primarily feature perspectives, issues, or events from countries or areas outside the United States has decreased" (37 to 29 percent; p. 11). Interestingly, a collaborative report published by ACE, Art and Science Group, and the College Board (*studentPOLL*, 2008) found that high school students with higher SAT scores (900 and above) were more likely to indicate their intentions to participate in a college study abroad program compared to their lower scoring counterpart. Also, female students were more likely to state that they planned to study abroad than males (58 percent compared with 40 percent, p. 3). The report also found that students who reported the greatest number of personal international experiences (five or more) were most likely to indicate their intention to study abroad compared to those with fewer experiences (60 percent v. 49 percent for three

or four v. 4 percent for two or less) (p. 7). These findings underscore the importance of investigating the existence of individual difference characteristics in our future leaders. In the current study we examine factors similar to those reported among high school students with our sample of undergraduate students. We hope to find support for the observed relationships between global awareness and knowledge and appreciation of cultural awareness.

Research with undergraduate students has also supported the importance of assessing students' willingness to work and communicate effectively outside of their cultural environment as well as their desire to expand their knowledge of other cultures. In a study that helped form the foundation for the current research, Clarke (2004) measured students' global awareness and attitudes towards internationalism in a sample of 701 college students. Based on theoretical and empirical findings, the researcher proposed that global awareness would predict international attitudes. Results indicated that a majority of students felt that the culture of the United States was superior compared to other cultures. Individuals with personal experience with immigrants reported more favorable perceptions of internationalism compared to those with little experience. Regression analysis revealed background factors (i.e., major, age, gender and ethnicity) and global awareness indicators (studying a foreign language, taking a course/visiting a foreign country, and exposure through the media) predicted between 11% and 34% of the variability in the measures of internationalism. Based on her findings, the researcher endorsed a movement towards developing curricula that integrates the major world cultures.

### **The Present Study**

Our research questions are formed from studies that demonstrate the overall importance of one's ability to conceptualize complex global issues in understanding the intricacies of the cultural environment. First, we are specifically interested in the relative predictive ability of need for cognition, global mindset and cultural intelligence on a set of items measuring attitudes towards internationalism. Considering the

limited research examining the role of need for cognition in the context of cultural awareness, this research question is exploratory. Our expectation however, is that individuals high in need for cognition will express less ethnocentric attitudes compared to their lower scoring counterpart. We expect to observe a similar effect for global mindset and cultural intelligence. Secondly, we are interested in whether and to what extent global awareness predicts attitudes towards internationalism. Utilizing global awareness predictors and measures of internationalism assessed by Clarke (2004), we expect that those students with greater knowledge and/or participation in cultural activities will report more open attitudes towards cultural differences compared to those who do not. Finally, we examine the importance of demographic characteristics (gender, age, year in school, area of study) when explaining this same set of outcome measures.

## **Method**

### **Participants**

Participants were 159 undergraduate students (102 female and 57 male) chosen via convenience sampling from a northeastern university. Students participated either on a volunteer basis or for extra credit, at the discretion of the instructor. Nearly all (89%) were Caucasian and 76% reported that their primary major resided in the School of Social Sciences. Age and year in school were normally distributed among 4 categories (18-22 and freshman-senior). Ninety-three percent indicated they had studied a foreign language, 55% stated they had previously visited with or entertained immigrants in their home, 59% stated they had taken a course in a non-western civilization, and 85% indicated they had previously visited a foreign country.

### **Materials**

Stimulus materials consisted of an Informed Consent, five demographic and background items (listed above), nine items adopted from Clarke (2004) – four measuring global awareness (also listed above) and five measuring attitudes towards internationalism. To measure global mindset we used 20 items taken from

Javidan, et al., (2006). These items were not items in the GMI, but rather correlates of global mindset<sup>4</sup>. In addition, participants completed 15 items from the 20-item Four Factor Cultural Intelligence Scale (CQS)<sup>5</sup>, the 18-item Need for Cognition Scale (NFC), and a debriefing statement.

### Design and Procedure

The current study constituted a survey format. Participants were linked to the study's url (serviced through the online software tool of *SurveyMonkey*). After indicating consent, all participants completed the survey. Upon completion, they were thanked for their participation and provided a debriefing statement that directed them to future reading on the research topic, if interested. Participation was confidential and the survey took approximately 15 minutes to complete.

## Results

### Reliability Analyses

Cronbach's alpha was obtained for each of the three measures administered in the study. For the 20 items measuring correlates of global mindset, Cronbach's alpha = .94,  $M = 114.79$ , responses ranged from 59-140. Participants were asked to rate the degree of importance associated with each item. A sample of items included: "The ability to excite people from a different part of the world", "The ability to connect with people from other parts of the world", "Understanding the economic systems in other parts of the world". Responses were scaled using Likert-type format ranging from 1 = Not at all important to 7 = Extremely important.

**NFC.** For the 18-item NFC scale, Cronbach's alpha = .87,  $M = 63.08$ , responses ranged from 37-86. Minimal recoding was

necessary and occurred only for certain items on this scale. Participants were asked to respond to each item with respect to how it described them. A sample of items included: "I would rather do something that requires little thought than something that is sure to challenge my thinking abilities", "I prefer to think about small, daily projects to long-term ones", "I feel relief rather than satisfaction after completing a task that required a lot of mental effort". Responses were scaled from 1 = Not at all like me to 5 = Completely like me.

**CQS.** For the 15 items chosen from the CQS, Cronbach's alpha = .91,  $M = 67.95$ , responses ranged from 38-105. Participants reported their level of agreement (1 = Strongly disagree to 7 = Strongly agree) with the fifteen items selected for us. A sample of items included: "I am conscious of the cultural knowledge I apply to cross-cultural interactions", "I know the rules for expressing non-verbal behaviors in other cultures", "I am sure I can deal with the stresses of adjusting to a culture that is new".

In order to perform linear regression analysis, new variables were computed for each of our predictors (NFC, CQ, and the correlates of global mindset) across participants by summing each participant's responses. The five items assessing internationalism included: "The culture of the US is superior to other countries"; "The US should be involved in foreign military matters"; "I favor the US policy of foreign economic assistance"; "I would work full-time in a foreign country"; and "I have been exposed to foreign cultures through the media". Participants indicated their level of agreement by responding on a Likert-type scale with a range of 1 = Not at all to 7 = Completely.

### Research Questions

In order to test the relative predictive ability of need for cognition, global mindset and cultural intelligence on attitudes towards internationalism, we performed a series of linear regression analyses. Our results indicated the predictive utility of NFC and CQ on two of the five outcome measures. Specifically, CQ and NFC explained 10% of the Model's total variance on the item: "I would work full-time in a foreign country":  $F(3, 128) = 8.627, p < .001$ ,

<sup>4</sup> Javidan, et al., utilized these items in the context of professional interviews in order to obtain a better understanding of the construct of global mindset.

<sup>5</sup> Fifteen items include four CQ strategy items, six items measuring CQ knowledge, and five CQ motivation items. Considering the CQ behavior items assume cultural interactions ("I vary the rate", "I alter my facial expressions") we decided not to include these items in our sample of college students.

$R^2 = .17$ ; CQ explained 7% of the variance ( $\beta = .30, p = .001, sr^2 = .266$ ); NFC explained 3% of the variance ( $\beta = .16, p = .049, sr^2 = .160$ ). With respect to the second significant finding, CQ explained 12% of the Model's total variance on the item: "*I have been exposed to foreign cultures through the media*":  $F(3, 128) = 9.215, p < .001, R^2 = .18$ ; ( $\beta = .39, p < .001, sr^2 = .117$ ). NFC and CQ did not predict responses to the remaining items measuring attitudes towards internationalism: "*The culture of the US is superior to other countries*"; "*The US should be involved in foreign military matters*"; and "*I favor the US policy of foreign economic assistance*". The items measuring correlates of global mindset did not emerge as a significant predictor for any of our measures of internationalism.

Secondly, in order to test whether and to what extent global awareness predicts attitudes towards internationalism we performed additional linear regression analyses. Global awareness predictors (adopted from Clarke, 2004) included: taking a course in a non-western civilization, visiting a foreign country, taking a foreign language, and visiting with immigrants. Similar to our first findings, the outcome measures of working full-time in a foreign country and exposure to the media were significant. Taking a course in a non-western civilization ( $\beta = .15, p = .054, sr^2 = .147$ ) and visiting with immigrants ( $\beta = .26, p = .001, sr^2 = .252$ ) explained 8% of the Model's total variance on the item: "*I have been exposed to foreign cultures through the media*":  $F(4, 154) = 5.100, p = .001, R^2 = .12$ . Visiting a foreign country explained 8% of the Model's total variance on the item: "*I would work full-time in a foreign country*":  $F(4, 154) = 4.651, p = .001, R^2 = .11$ ; ( $\beta = .28, p < .001, sr^2 = .279$ ). The remaining global awareness items did not predict responses to the following items measuring attitudes towards internationalism: "*The culture of the US is superior to other countries*"; "*The US should be involved in foreign military matters*"; and "*I favor the US policy of foreign economic assistance*".

Finally, we assessed the ability of demographic and background items to predict attitudes towards internationalism. Our

predictors were identified as gender, age, ethnicity, year in school, and school/college where major resides. The Model approached significance:  $F(5, 153) = 2.086, p = .07, R^2 = .06$ ; Year in school explained 3% of the variance: ( $\beta = -.23, p = .025, sr^2 = -.177$ ) on the item: "*The culture of the US is superior to other countries*". Underclassmen were more likely to endorse this statement compared to upperclassmen.

## Discussion

In the current study our research questions were formed from studies that demonstrated the overall importance of one's ability to conceptualize complex global issues in understanding the intricacies of the cultural environment. Recall that we were specifically interested in the relative predictive ability of need for cognition, global mindset and cultural intelligence on a set of items measuring attitudes towards internationalism. Although the research in this area is limited, our expectation was that individuals high in need for cognition would express less ethnocentric attitudes compared to their lower scoring counterpart. We also expected students with greater knowledge and/or participation in cultural activities would report more open attitudes towards cultural differences compared to those who do not. Finally, we were interested in examining the importance of demographic and background characteristics when explaining attitudes towards internationalism.

Our results found limited but encouraging support for the role of cognitive effort (as measured by NFC scale) when observing attitudes towards internationalism. In particular, we found that need for cognition explained a portion of the variance in students' preference for working full-time in a foreign country. This result lends modest support for Osland and Bird (2006) who state that global leaders must possess an elevated capacity for mental flexibility, as well as a heightened need for a broader knowledge base in order to solve complex problems arising from the cultural arena. Considering the close connection between the concept of mindfulness and cognitive effort, our findings also support Tuleja (2014) who

observed improvements in how students' reflected on cultural characteristics after participation in a cross-cultural immersion experience. Most importantly, these results help to provide validation for the findings published by the American Council on Education (2008), which found that high school students with higher SAT scores were more likely to indicate their intentions to participate in a college study abroad program compared to their lower scoring counterpart. Overall, these findings are encouraging as they can begin a dialog on the role of cognitive effort in training our students to become global leaders.

Our study did not find any evidence however, of need for cognition in assessing perceptions of the following items: "*The culture of the US is superior to other countries*"; "*The US should be involved in foreign military matters*"; and "*I favor the US policy of foreign economic assistance*". One explanation for this finding is the restricted range of responses we observed on these items. Specifically, between 73-78% of responses to these items were below the mid-point, indicating very little overall agreement with these items from our sample. This restricted range limited the predictive ability of not only need for cognition, but also cultural intelligence and the correlates of global mindset. It would be useful to further investigate each of these items, perhaps through qualitative methods (e.g., open-ended responses, interview format) to obtain a better understanding of individuals' conceptualizations of these items.

In the current study, cultural intelligence played a role in predicting exposure to the media and working full-time in a foreign country. On both items CQ explained more of the variance compared to NFC. This finding offers support to Fehr and Kuo (2008) who found that cultural intelligence explained almost 16% of the variability in individuals' experiences with their multicultural network of friends. In the current study, students who reported visiting a foreign country indicated a greater preference for working in a foreign country compared to those who did not. This results mirrors the ACE (2008) report that found that students who reported the greatest number of personal international experiences were most likely to indicate their intention to student abroad

compared to those with fewer experiences. We also found that taking a course in a non-western civilization and involvement with immigrants each made a positive contribution to the outcome measure: *I have been exposed to foreign cultures through the media*. Interestingly, each of these findings is in agreement with Clarke (2004), who found these items contributed positively to her measure of attitudes towards internationalism. As a result of our findings with respect to cultural intelligence, we are reassured that cultural intelligence is an important attribute when assessing international attitudes and global awareness.

Global mindset (as measured by the items chosen as correlates of global mindset) did not emerge as a significant predictor on any of the items measuring attitudes towards internationalism. We believe this can best be understood when viewed through the lens of the global education curriculum initiative (McTighe-Musil, 2006). Recall that data reported in the AACU document stated that although global knowledge has been identified as a major component of a twenty-first century education, the percentage of colleges and universities requiring undergraduate courses that "primarily feature perspectives, issues, or events from countries or areas outside the United States has decreased" (p. 11). It would appear then that to a great extent, students' ability to form a global mindset would be a function of the curriculum to which they are exposed, rather than personal experience. To support this position, Clarke (2004) points to the fact that global education is not only the perspectives offered through curriculum, but also individuals' attitudes towards other cultures. Most importantly and relevant to our findings, she concludes that in order to promote cognitive, affective, and participatory outcomes, curriculum for our future leaders must possess multicultural and international content. Hunter (2004) echoes this position and offers the following statement: "Ultimately, the responsibility falls on higher education institutions to do more than offer a series of internationally focused courses or send students abroad to have them become globally competent" (p. 11). Thus, it is reasonable to conclude that undergraduate students' global

mindset is shaping as they become increasingly more exposed to a diverse curriculum. As a result, it would be beneficial to measure global mindset in upper-class students across all disciplines preparing to enter the work environment. Perhaps this would provide a more practical measure of predictive value in the context of attitudes towards internationalism. Finally, we assessed the ability of demographic and background items to predict attitudes towards internationalism. We found that underclassmen were more likely to endorse the statement that US culture is superior to other countries compared to upperclassmen<sup>6</sup>. This finding is encouraging as it suggests that ethnocentrism decreases with age. From an educational perspective, it would be worthwhile to examine whether and to what extent exposure to courses focusing on diversity explains this finding.

### Limitations and Future Research

The findings of this study should be viewed in the context of some important limitations. First, this was a single sample study of university students with limited exposure to a culturally diverse environment. As stated earlier, this limited exposure plays an important role in how we explain our findings. Secondly, our sample consisted largely of students with majors in the social sciences (76%). As a result, we are careful not to assume that our findings can generalize to students with majors in professional schools (justice studies, business, architecture, and engineering). Of course, future studies will benefit from including multiple universities, as this will allow for more robust conclusions regarding assessing attitudes towards internationalism and global awareness. It is also important to highlight methods to enhance the validity associated with the individual difference measures chosen for this study. First, the items chosen to measure global mindset were not the items of the Global Mindset Inventory, but rather a set of correlates to global mindset. In addition, the items did not equally represent the psychological, intellectual, and social capitals of the construct.

Consequently, this limited our ability to assess the predictive ability of each capital on our outcome measures. Future research should consider utilizing the original instrument, which will allow greater latitude in analysis and greater confidence in interpreting results. Future studies should also examine the individual contribution of each of the sub-scales of the CQ - CQ strategy, knowledge, motivation and behavior - to attitudes towards internationalism. Cultural intelligence is a complex, multidimensional construct, which integrates metacognitive, cognitive, motivational and behavioral dimensions (Earley & Ang, 2003). These dimensions expand as a result of exposure to environments characterized by cultural diversity. As a result, there may be a more direct relation between attitudes towards internationalism and a specific dimension of cultural intelligence as opposed to the measure, in totality.

Finally, there are various methods to examine the role of cognition on internationalism in addition to the one chosen for the current study. Our findings provide much needed empirical support for the emerging construct of global mindset, cultural intelligence and need for cognition and their importance to effective global leadership. Considering our findings, future researchers may wish to examine the heuristic component to the development of attitudes and opinions on diversity issues. Specifically, this can include using the theoretical information-processing model of Elaboration Likelihood (Petty & Cacioppo, 1986) to examine whether cultural intelligence is formed via the central route or the peripheral route persuasion. Regardless of theoretical framework chosen, the role of need for cognition when assessing global leadership performance outcomes will continue to be a contributing factor in the increasingly diverse and global workplace environment. With respect to the limited body of research addressing diversity/cultural awareness in undergraduates, our findings support a continued initiative for a more diverse curriculum in undergraduate education, particularly as we continue to identify and refine our operational definition of global leadership.

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<sup>6</sup> This finding approached significance  $p = .07$ .

### Author Biographies

**JOAN ROMANO** earned her M.S. in Leadership from Roger Williams University in 2013. She is currently the University Registrar at RWU. Her graduate capstone project served as the foundation for this manuscript. Her research ideas consider the relation among many factors associated with global leadership. She is particularly interested in testing global leadership as an individual difference variable among heterogeneous college samples. She has also taught Human Behavior in Perspective, a first-year course in the University's core curriculum program.

**JUDITH PLATANIA** earned her Ph.D. in Applied Psychology from Florida International University in 1995. She is currently a Professor of Psychology at Roger Williams University in Bristol, RI. She served as Ms. Romano's advisor for her capstone project. Her peer-reviewed publications appear in the *Journal of Forensic Psychology*, *Applied Psychology in Criminal Justice*, the *Journal of Legal and Criminological Psychology*, and *Law and Human Behavior*. Her teaching obligations include Quantitative Analysis, Research Methods, and Experimental Psychology.

### References

- American Council on Education (2012). Mapping Internationalization on US Campuses: 2012 edition. Center for Internationalization and Global Engagement (CIGE)
- Ang, S., Van Dyne, L., & Koh, C. (2005). Personality correlates of the four-factor model of cultural intelligence. *Group Organization Management, 31*, 100-123.
- Beechler, S., & Javidan, M. (2007). Leading with a global mindset. *Advances in International Management, 19*, 1390-1690.
- Bruch, M. A., Juster, H. R., & Heisler, B. D. (1982). Conceptual complexity as a mediator of thought content and negative affect: Implications for cognitive restructuring interventions. *Journal of Counseling Psychology, 29*, 343-353.
- Bruine de Bruin, W., Parker, A. M., & Fischhoff, B. (2007). Individual differences in adult decision-making competence. *Journal of Personality and Social Psychology, 92*, 938-956.
- Carnevale, J. J., Inbar, Y., & Lerner, J. S. (2011). Individual differences in need for cognition and decision-making competence among leaders. *Personality and Individual Differences, 11*, 274-278.
- Chen, M.L., & Lin, C. P. (2013). Assessing the effects of cultural intelligence on team knowledge sharing from a socio-cognitive perspective. *Human Resource Management, 10*, 675-695.
- Clarke, V. (2004, April). Students' global awareness and attitudes to internationalism in a world of cultural convergence. *Journal of Research in International Education, 3*, 51-70.
- Crowne, K. A. (2013). An empirical analysis of three intelligences. *Canadian Journal of Behavioural Sciences, 45*(2), 105-114.
- Crowne, K. A. (2008). What leads to cultural intelligence? *Business Horizons, 51*, 391-399.
- Earley, P. C., & Ang, S. (2003). Cultural intelligence: Individual interactions across cultures. Stanford, CA: Stanford University Press.
- Fehr, R., & Kuo, E. (2008, April). *The impact of cultural intelligence in multicultural social networks*. Paper presented at the Society of Industrial and Organizational Psychology, San Francisco, CA.
- Gupta, A. K., & Govindarajan, V. (2002). Cultivating a global mindset. *Academy of Management Executives, 16*, 116-26.
- Hogan, D. E., & Mallott, M. (2005). Changing racial prejudice through diversity education. *Journal of College Student Development, 46*, 115-125.
- Hunter, W. D. (2004, Spring). Got global competency. *International Education, 6*-12.
- Javidan, M., Teagarden, M., Babrinde, F., Walch, K., Lynton, N., Pearson, C., Bowen, D., & Cabrera, A. (2006). Global mindset defined: Expat success strategy. *Worldwide ERC, 1*-11. Retrieved from [http://www.worldwideerc.org/foundation/documents/global\\_mindset.pdf](http://www.worldwideerc.org/foundation/documents/global_mindset.pdf)

- Jokinen, T. (2004). Global leadership competencies: A review and discussion. *Journal of European Industrial Training, 29*(3), 199-216.
- Klafehn, J., Li, C., & Chiu, C. (2013). To know or not to know, is that the question? Exploring the role and assessment of meta-cognition in cross-cultural contexts. *Journal of Cross-Cultural Psychology, 44*, 963-991.
- Klein, G., & Hoffman, R. R., (1992). Seeing the invisible: Perceptual-cognitive aspects of enterprise. In: M. Robinowitz. (Ed.). *Cognitive science foundations of instruction*, 203-266. Mahwah, NJ: Lawrence Erlbaum.
- Lane, H., & Maznevski, M. (2004). *The handbook of global management*. Oxford: Blackwell.
- McTighe-Musil, C. (2006). Assessing global learning: Matching good intentions with good practice. Association of American Colleges and Universities, Washington, DC.
- Ng, K. Y., Van Dyne, L., & Ang, S. (2009). From experience to experiential learning: Cultural intelligence as a learning capability for global leader development. *Academy of Management Learning and Education, 8*, 511-526.
- Oolders, T., Chernyshenko, O. S., & Stark, S. (2008). Cultural intelligence as a mediator of relationships between openness to experience and adaptive performance. In S. Ang & L. Van Dyne. (Eds.). *Handbook of cultural intelligence: Theory, measurement and applications*. 145-158. New York, NY: M.E. Sharpe, Inc.
- Osland, J. S., & Bird, A. (2006). *Global leaders as experts*. In: *Advances in Global Leadership, 4*, 125-145. Amsterdam: Elsevier Ltd.
- Osland, J. S., Bird, A., Mendenhall, M. & Osland, A. (2006). Developing global leadership capabilities and global mindset: A review. In: G. Stahl & I. Bjorkman. (Eds.). *Handbook of research in international human resource management*, 197-222, Northampton, MA: Edward Elgar Publishing.
- Petty, R. E., & Cacioppo, J. T. The elaboration likelihood model of persuasion. *Advances in Experimental Social Psychology, 19*, 123-162.
- Rabotin, M. (2008, July). Deconstructing the successful global leader. *T + D*, 55-59.
- Reinhard, M, A., Dickhauser, O. (2009). Need for cognition, task difficulty, and the formation of performance expectancies. *Journal of Personality and Social Psychology, 96*, 1006-1076.
- studentPOLL (2008). College-bound students' interests in study abroad and other international learning activities. ACE, Art and Science, and College Board. Retrieved from: <http://www.acenet.edu/news-room/Documents/2008-Student-Poll.pdf>
- Thomas, D. C. (2006). Domain and development of cultural intelligence: The importance of mindfulness. *Group and Organization Management, 31*, 78-99.
- Tuleja, E. A. (2014). Developing cultural intelligence for global leadership through mindfulness. *Journal of Teaching in International Business, 25*(1), 5-24.
- Van Dyne, L., & Ang, S. (2004). *The 20 item four factor cultural intelligence scale*. Singapore: Cultural Intelligence Center, Nanyang Technological University.
- Waller, J. (1993). Correlation of need for cognition and modern racism. *Psychological Reports, 73*, 542.
- Wills, S. & Barham, K. (1994). Being an international manager. *European Management Journal, (12)*, 49-58.