Multinationalism and Performance: Does Multinational Experience Predict Competence?

by

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Abstract

Multinationals are individuals who have lived in several countries and cultures over the course of their lives. Previous research has demonstrated that individuals and workgroups comprised of diverse backgrounds can be more innovative, productive, and effective at work than their homogeneous counterparts, when they perceive their various social identities as complimentary to one another (referred to as high identity integration). This study explores the relationship between extent of multinationalism and identity integration, and three individual characteristics that are regarded as valuable in the increasingly diverse and global work environment. These characteristics are cultural intelligence, tolerance for ambiguity, and creativity. It was hypothesized that higher levels of both multinationalism and identity integration predict higher levels of all three dependent variables. Two-hundred and fifty-one people completed an online questionnaire, comprised of self-report scales, demographic questions, and questions about the nature of multinational participants’ international experiences. Results showed that, in contrast to the hypothesis, mononationals were more culturally intelligent, tolerant to ambiguity, and creative. A comparison of multinationals with extensive multinational experience and limited multinational experience, and a comparison of multinationals with high identity integration and low identity integration, showed that higher levels of both independent variables may predict higher levels of cultural intelligence and tolerance for ambiguity. Results are discussed, implications are explored, and suggestions for future research are proposed.
Multinationalism and Performance: Does Multinational Experience Predict Competence?

Economic integration, international cooperation, and cross-cultural exchange characterize today’s global world. As technology creates vast opportunity for international teamwork, cooperation among people from different countries and cultures will undoubtedly become increasingly critical to achieving successful outcomes (Galbraith, 2000). Popular business articles and academic research in the fields of psychology and business have shown that organizational innovation, efficiency, and overall competitiveness are often positively associated with employee diversity and cultural competence (Schlesinger, 1992; Wolsko, Park, & Judd, 2006). These organizational characteristics become particularly important in successfully operating across global markets (Gurin, Dey, Gurin, & Hurtado, 2003; Mannix & Neale, 2005). Diversity allows group members to contribute their unique opinions and knowledge sets, as well as combine disparate perspectives through discussion, in order to improve performance and reach mutually-desired goals (Amabile, 1983; Amason, 1996; Kickul & Gundry, 2001; Northcraft, Polzer, Neal, & Kramer, 1995).

A consensus about the benefits of diversity in the workplace, however, has not been reached. Empirical research has found positive, non-significant, and negative relationships between diversity and team performance (Gerbert, Boerner, & Kearney, 2006; Mannix, Griffith, & Neale, 2002). Collaboration among diverse groups faces several potential threats, such as misunderstanding, stereotyping, conflicting values, and in-group bias (Ashforth & Mael, 1989; Caldwell & O’Reilly, 2003; Cheng, Sanchez-Burks, & Lee, 2007; De Drue & Weingart, 2003; Ferlie, Fitzgerald, Wood, & Hawkins, 2005; Harrison, Price, & Bell, 1998; Hogg, Abrams, Otten, & Hinkle, 2004; Miller, Burke, & Glick, 1998; Pelled, 1996;). Cultural diversity,
specifically, can create additional obstacles, like language barriers, non-verbal communication differences, and incompatible management styles (Lee et al., 2003).

For example, previous research on cross-cultural differences has demonstrated that Eastern cultures emphasize relational and collectivist values, across personal and private domains. In contrast, Western, particularly American, culture emphasizes individuality and puts less emphasis on relational concerns (Lee et al., 2003). One way in which this cultural difference manifests itself is how directly co-workers communicate with one another (Markus & Kitayama, 1991). While individuals tend to be more direct in low-context cultures (i.e. Western), they tend to be more indirect in high-context cultures (i.e. Eastern)(Ambady, Koo, Lee, & Rosenthal, 1996; Holtgraves, 1997). Imagine a scenario in which an American employee and a Chinese employee have a month to complete a project for their boss. The American may be more vocal about any problems he/she has with the work his/her partner produces, which could potentially make the Chinese person feel defensive, resentful, or intimidated. On the other hand, the Chinese person may not convey his/her concerns with his/her partner’s work in a manner that is explicit enough for the American to recognize, which could compromise the quality of the team’s results.

Despite the potential pitfalls of cultural workgroup diversity, it is virtually guaranteed to become more prevalent as globalization continues. Therefore, the question of whether or not cross-cultural diversity is good or bad is practically irrelevant. Instead, the more pertinent question is how to best take advantage of the positive aspects of diversity, while avoiding its potential drawbacks.

Cultural intelligence is an individual characteristic that has been shown to facilitate the performance of diverse groups, as well as individuals within those groups. Cultural intelligence
has been defined and measured in several ways (Thomas et al., 2008). Some widely agreed-upon aspects of cultural intelligence are: suspending judgment until enough information about the other person becomes available, being aware of one’s own assumptions and emotions, viewing a situation from several perspectives, seeking out new cultural information to better understand peoples’ behaviors, paying attention to the situation, reduced ethnocentrism, cultural knowledge, openness to unfamiliar people and settings, and mindfulness of context-appropriate affect and behaviors (Earley & Ang, 2003; Thomas et al., 2008; Triandis, 2006). As the work environment becomes more diverse, cultural intelligence is becoming more critical for individuals of different social identities to develop good working relationships (Earley & Ang, 2003).

Although cultural intelligence is believed to be a consequence of extensive training, it is plausible that the multinational experience alone provides equivalent or superior practical “training” (Triandis, 2006). After adapting to and living in multiple countries, individuals may become less entrenched in a single cultural mindset, allowing multinational people to be exceptionally effective in complex and diverse environments. Not only is it likely that multinationals possess specific language skills to communicate cross-nationally and specific, factual knowledge about the cultures of potential clients, peers, and customers, they probably also develop cognitive and behavioral patterns that are conducive to operating in any new cultural setting. As important components of cultural intelligence, these developed behaviors and ways of thinking, may enable multinationals to transcend the pitfalls of diversity.

In their book People Skills for Global Business: Cultural Intelligence (2004), Thomas and Inkson illustrate how living overseas may result in higher cultural intelligence. They recount a story of a Chinese American, who spoke Chinese and worked for a multinational corporation, relocating to China for a few years. Although the woman expected to play the role of
intermediary between Chinese and American employees when she first arrived, she realized quickly that she did not understand the management practices of her Chinese peers. Ultimately, through misunderstandings and professional failures, the woman gradually came to understand how to operate within the Chinese work environment. This illustration suggests that cultural intelligence is developed by trying new behaviors, taking note of their outcomes, and adjusting accordingly. It seems plausible that over time multinational people develop a general approach of openness and mindfulness toward unfamiliar people and cultures that they can apply in any new setting thereafter. Therefore, multinationals should have higher cultural intelligence than mononationals.

The term “multinationalism” can mean many things. In this paper, multinationalism is not a simple measure of the number of citizenships an individual holds, or even the number of countries in which he/she has lived. Instead, multinationalism is meant to indicate genuine, long-term exposure to several national cultures. It is important to remember that an individual can live in a foreign culture and not identify with that culture. Also, an individual can live with expatriates during his/her residency and interact with locals on a limited basis. Moreover, living in several countries that are at different stages of development is likely more challenging than living in similar economic environments. The same can be said for living in both Eastern and Western cultures, rather than just one. Therefore, the distinction between a mononational person and a multinational person can be based solely on the number of countries in which an individual has lived, but extent of multinationalism must also take into account the type of countries in which one has lived and the nature of his/her cultural emersion in each locality.

The question of how to reap the benefits of diversity has also been addressed in recent years by researchers interested in identity integration. Identity integration refers to an
individual’s perception of the compatibility or conflict between two social identities he/she possesses (Cheng et al., 2007). These social identities can be demographic (e.g. race, gender), cultural, or professional. People with high identity integration perceive their multiple identities as mostly compatible, and do not have trouble identifying strongly with several social groups at the same time (Cheng et al, 2007). Alternatively, people with low identity integration see their identities as fundamentally in conflict and can only identify strongly with each identity separately, at different times or in different contexts. For example, in a study conducted by Benet-Martinez & Haritatos (2005), many low integrators reported that they identified strongly with one cultural identity at home and another cultural identity at work.

In a similar vein, research suggests that individuals with low identity integration have a harder time accessing all their knowledge sets, perspectives, and competencies at one time. Instead, they tend to utilize those most associated with the social identity most salient at the time (Fiske & Taylor, 1984). In contrast, high identity integrators are better at simultaneously activating and utilizing knowledge, perspectives, and competencies acquired from multiple social identities (Cheng et al., 2007). Thus high identity integration allows individuals to reap the benefits of being in a diverse work environment. Recent research suggests that identity integration enables individuals to more effectively solve complex problems, draw social support from multiple social groups at one time, and achieve individual and group goals (Cheng et al., 2007; Ibarra, Kilduff, & Tsai, 2005; Mok, Morris, Benet-Martinez, & Karakitapoglu-Aygun, 2007). Therefore, identity integration moderates whether diversity is beneficial or detrimental.

Until now, culturally-focused identity integration research has been limited to bicultural individuals who have lived in only two cultural settings (Benet-Martinez, Lee, Leu, 2006; Chen, Benet-Martinez, & Bond, 2008). The present study expands the identity integration literature by
examining multinational individuals who have lived in as many as five countries. Although we predict that multinationals will be more culturally intelligent, we believe that not all multinationals will be similarly culturally intelligent. Only those with high identity integration, who can use their many cultural identities together, will be more culturally competent. Thus, it is hypothesized that multinationals with high identity integration will be more culturally competent than multinationals with low identity integration.

In addition to cultural intelligence, we predict that two other major sources of workplace performance are positively related to extent of individual multinationalism—creativity and tolerance for ambiguity. A widely agreed upon predictive measure of an organization’s ability to sustain competitive advantage is innovation (Ancona & Caldwell, 1992). Innovation is typically characterized by the integration of different perspectives and knowledge (Hargadon, 2002; Kanter, 1988). This process creates synergistic solutions that recombine existing and ostensibly unrelated ideas with one another to create something novel (Guilford, 1950; Rietzchel, Nijstad, & Stoebe, 2007; Schumpeter, 1934; Weick, 1979). As one would imagine, the likelihood of innovation is higher when teams are comprised of a diverse membership that can contribute varying perspectives and approaches (Phillips, Mannix, Neale, & Gruenfeld, 2004).

At the team level, Cheng et al. (2007) found that high identity integration, or perceived compatibility or conflict between different members’ social identities, is positively correlated with innovation. Presumably, this relationship exists because diverse teams with high identity integration can draw upon a wider range of opinions and knowledge sets and combine them through open dialogue, to facilitate innovation (Amabile, 1983; Kickul & Gundry, 2001; Northcraft, Polzer, Neal, & Kramer, 1995). At the individual level, people with high identity integration flourish under these organizational conditions, as their knowledge sets and
competencies from several social identities are simultaneously accessed and optimally utilized. This, in turn, contributes to higher levels of both team innovation and individual creativity (Cheng, Sanchez-Burks, & Lee, 2008). It is predicted that multinationals will be more creative than mononational. Additionally, it is hypothesized that among multinationals, those who have higher levels of identity integration will be more creative than those with lower levels of identity integration.

Tolerance for ambiguity is also an individual characteristic that has been linked to superior performance in the modern workplace (Wilkinson, 2006). Higher levels of tolerance for ambiguity allow individuals to take risks that enable timely decision-making and competitiveness. Additionally, tolerance for ambiguity allows individuals to work with unfamiliar people and under unfamiliar circumstances. It is predicted that multinationals, who have adjusted to living in numerous countries—an experience fraught with uncertainty—many times, will display higher levels of tolerance for ambiguity.

To summarize, it is hypothesized that multinationals will be more culturally intelligent, more creative, and exhibit higher tolerance for ambiguity than mononational. Among multinationals, those with more extensive multinational experience will exhibit higher levels of the three main dependent variables. Furthermore, multinationals with high identity integration will have higher cultural intelligence, creativity, and tolerance for ambiguity than multinationals with low identity integration.

Method

Participants

Two-hundred and fifty-nine people volunteered to participate in an online questionnaire. Eight people were excluded from the sample because they did not complete the survey beyond
Participants were recruited in four ways: through the University of Michigan’s International Center, an on-campus resource for international students, faculty, and staff; through the University of Michigan’s Psychology Department Subject Pool; through the University of Michigan’s Business School Subject Pool; and through personal contacts of the primary investigator. Individuals from both subject pools were given course credit for participating. All other participants were not compensated.

Forty-six percent of participants were male and 52.2% were female. Mean age was 25.95 years, with standard deviation of 6.288 years. The youngest participant was 16 years old and the oldest was 42 years old. The racial composition of participants was 53.8% White, 1.2% Black, 35.1% Asian, 4% Hispanic/Latino, .4% Native Hawaiian/Pacific Islander, and 5.2% Other. English was the first language of 41.8% of participants, while English was not the first language of 57.8% of participants. Two-thirds (66.9%) of participants reported that they are students, 11.2% reported that they are university educators or administrators, 2% reported that they are business people, and 19.1% reported “other” as their occupation. Participants claimed citizenship to over sixty countries.

Participants were divided into mononational and multinationals. About thirty percent (29.9%) of participants were classified as mononational and about seventy percent (69.3%) were classified as multinationals. An individual was considered a multinational if he/she has lived in at least two countries, for a minimum of twelve months each. An individual was considered a mononational if he/she has lived in only one country and the duration of each of his/her travel experiences has been less than twelve months.
Procedure

The study was conducted entirely online, via www.qualtrics.com. After volunteering to participate in the study, subjects were sent an e-mail message containing a link to the online questionnaire. Subjects were instructed that they must complete the twenty to forty minute session in one sitting. After completion of the study, subjects were debriefed about the purpose of the study, provided contact information of the principle investigator, and thanked for their participation.

Materials

All participants’ cultural intelligence, tolerance for ambiguity, and creativity were measured. All participants also completed the TIPI Personality Scale and were assessed on a measure of perceived adeptness and enjoyment in culturally diverse and complex work environments. Multinational participants were assessed on two additional measures—extent of multinationalism and identity integration.

Two scales were used to measure cultural intelligence. Both asked participants to indicate how strongly they agree with statements about how they feel, think, and behave in situations involving people and places that are unfamiliar or not in-line with their worldviews. The 20-Item, Four Factor Cultural Intelligence Scale asked about four components of cultural intelligence: CQ-Strategy, CQ-Knowledge, CQ-Motivation, and CQ-Behavior (Ang, Van Dyne, Koh, & Ng, 2004) (see Appendix A). These questions were answered on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Responses to each question were added to create a total cultural intelligence score. To test the reliability of the 20-Item, Four Factor Cultural Intelligence Scale, a reliability analysis showed that Cronbach’s Alpha was high, $\alpha = .95$. 
The *David Thomas Cultural Intelligence Scale* included thirty items that asked about participants’ behavior and thoughts in hypothetical and real cross-cultural situations (see Appendix B). These questions were answered on a scale from 1 (Strongly Disagree) to 7 (Strongly Agree). Responses to each question were added to create a total cultural intelligence score. To test the reliability of the *David Thomas Cultural Intelligence Scale*, a reliability analysis showed that Cronbach’s Alpha was moderate to high, $\alpha = .74$.

Tolerance for Ambiguity was assessed using *Budner’s Tolerance for Ambiguity Scale* (Budner, 1962) (see Appendix C). The scale includes sixteen items that ask participants about how they think, feel, and behave in situations that involve uncertain settings or outcomes. These questions were answered on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Responses to each question were added to create a total tolerance for ambiguity score. To test the reliability of *Budner’s Tolerance for Ambiguity Scale*, a reliability analysis showed that Cronbach’s Alpha was moderate to high, $\alpha = .77$.

Two tasks were used to measure creativity. The first was a modification of a creativity measure developed by Hirt, Devers, and McCrea (2008). The *Transportation Creativity Task* asked participants to list as many (up to 30) forms of transportation as possible, excluding nine conventional modes: car, bus, bike, airplane, boat, train, taxi, cab, subway (see Appendix D). A creativity score was determined for each participant, by adding up the total number of non-conventional modes of transportation he/she listed.

A second creativity tasks, the *Remote Association Test (RAT)*, presented participants with three one-word items and asked them to fill in a fourth word that connected the other three to each other (Mednick, 1968) (see Appendix E). There is one correct answer for each group of three one-word items. The following is an example: CRACKER-UNION-RABBIT, with the
correct answer being JACK. A creativity score was determined, by adding up the total number of correct answers a participant generated.

In order to learn more about how participants perceived their performance in culturally diverse situations, they were asked to complete the *Ten-Item Perceived Adeptness and Enjoyment Scale* (see Appendix F). The scale was created by the principle investigator, and includes five items that ask participants to report how adept they feel in culturally diverse situations and five items that ask them how much they enjoy being in culturally diverse situations. These questions were answered on a scale from 1 (Strongly Disagree) to 7 (Strongly Agree). Responses to each question were added to create a total adeptness and enjoyment score. To test the reliability of the *Ten-Item Perceived Enjoyment and Adeptness Scale*, a reliability analysis showed that Cronbach’s Alpha was high, $\alpha = .98$.

The *Ten-Item Personality Inventory (TIPI)* was administered to measure each participant’s self-perceived, personality traits (Gosling, Rentfrow, & Swann, 2003) (see Appendix G). Two questions addressed each Big Five personality trait: extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. Participants answered on a scale from 1 (Strongly Disagree) to 7 (Strongly Agree). Responses for each pair of questions were added to create five total scores.

*Extent of multinationalism* was measured in several ways. Multinational participants were asked to list all countries in which they have lived for a minimum of twelve months. They could list up to five countries. For each country, participants were asked to indicate how long they lived there, their purpose for living there, and with whom they lived (see Appendix H). Using this information, six items were considered as potential measures of extent of multinationalism: number of countries lived in, outside country of birth; number of years spent
living outside birth country; difference in economic development between most affluent country and least affluent country lived in (MostAffluentGDP/capita-LeastAffluentGDP/capita); whether or not one lived with locals in each country; whether or not one has lived in both East Asian and Western cultures; and whether or not one indicated high identification with the cultures of both countries in which he/she lived the longest. GPD per capita data came from the Central Intelligence Agency’s World Factbook (2009). Participants’ scores on the three continuous measures (years, countries, and economic difference) were split evenly between low and high groups, coded as 0 and 1, respectively. Living in both East Asian and Western cultures was coded as 1, living with locals was coded as 1 for each country, and identifying strongly with both countries in which one lived the longest was coded as 1. Finally, the six measures were added into a single extent of multinationalism score, ranging from zero to ten.

All multinational participants completed a nine-item Identity Integration Scale (see Appendix I)(Cheng, Sanchez-Burks, & Lee, 2008). The questions measure the extent to which multinational participants identify with the cultures and ideals of the two countries in which they have lived the longest, and how well their separate cultural identities are integrated into a single self-concept. These questions were answered on a scale from 1 (Strongly Disagree) to 7 (Strongly Agree). Responses to each question were added to create a total identity integration score. To test the reliability of the Identity Integration Scale, a reliability analysis showed that Cronbach’s Alpha was moderate to high, α = .73.

Multinational participants were then asked to respond to three open-ended questions about what they believe are the primary strengths and challenges of being a multinational person (Appendix J). Finally, all participants were asked to report the following Demographics: gender,
Participants were also asked to report their country(ies) of citizenship, and country of birth.

Results

Results Overview

Results were analyzed in two parts. First, participants were divided into two groups, mononationals and multinationals, and the two groups were compared on cultural intelligence, tolerance for ambiguity, creativity, and perceived adeptness and enjoyment. Second, multinational participants alone were compared to one another. The relationships between three independent variables—extent of multinationalism, identity integration, and the interaction between extent of multinationalism and identity integration—and four dependent variables—cultural intelligence, tolerance for ambiguity, creativity, and perceived adeptness and enjoyment—were then assessed.

The correlation between the two cultural intelligence scales, the 20-Item, Four Factor Cultural Intelligence Scale and the David Thomas Cultural Intelligence Scale was too low ($r = .56, p < .01$) for participants’ two scores to be combined into a single score. Thus, analyses were done using each, separate cultural intelligence score. Similarly, the correlation between scores on the two creativity tests, the Transportation Creativity Task and the Remote Association Test (RAT) was too low ($r = .18, p < .05$) for participants’ two scores to be combined. Analyses were done using each, separate creativity score.

Comparing Mononationals and Multinationals: Overview

Before comparing mononationals and multinationals on the dependent variables of interest, it was necessary to make sure the two groups had statistically equivalent demographics. Statistically significant differences in age and race (White or Non-White) were found between
the mononational and multinational groups (see Table 1). Mononationals were younger ($M = 21.43, SD = 4.56$) than multinationals ($M = 27.92, SD = 5.93$), $t(244) = -8.41, p < .001$. The mononational group had a larger proportion of White participants than Non-White participants, whereas the majority of participants in the multinational group were Non-White ($\chi^2 (5, 249) = 5.12, p < .001$). Additionally, mononationals’ scores on four of the five TIPI items (agreeableness, conscientiousness, emotional stability, and openness) were significantly higher than multinationals’ scores (see Table 1).

In order to examine the relationship between the 2-level categorical variable of multinational status (mononational/multinational) and each of the continuous, dependent variables, an independent samples t-test was done.

**Comparing Mononationals and Multinationals: Cultural Intelligence**

Scores on the 20-Item, Four Factor Cultural Intelligence Scale ranged from 23 to 100, $M = 55.71, SD = 15.84$. Cultural intelligence scores were significantly higher for mononationals ($M = 62.10, SD = 12.91$) than multinationals ($M = 51.90, SD = 16.10$), $t(168) = 4.25, p < .001$. After controlling for age and race differences between the mononational and multinational groups, a one-way ANOVA was significant, $F(1, 167) = 7.263, p = .008$. When openness was controlled for in addition to age and race, however, cultural intelligence scores for mononationals and multinationals were not significantly different, $F(1, 165) = .582, p = .447$.

Scores on the David Thomas Cultural Intelligence Scale ranged from 49 to 159, $M = 120, SD = 20.15$. Cultural intelligence scores were higher for mononationals ($M = 123.65, SD = 18.73$) than multinationals ($M = 118.25, SD = 20.50$), but the difference was not statistically significant, $t(168) = 1.959, p = .051$. After controlling for age and race differences between the mononational and multinational groups, a one-way ANOVA was also not significant, $F(1, 246)$
When openness was controlled for in addition to age and race, however, cultural intelligence scores for mononational and multinationals were significantly different, $F(1, 166) = 4.538, p = .035$.

**Comparing Mononational and Multinationals: Tolerance for Ambiguity**

Scores on Budner’s Tolerance for Ambiguity Scale ranged from 25 to 66, $M = 48.91$, $SD = 8.89$. Tolerance for ambiguity scores were significantly higher for mononational ($M = 49.72$, $SD = 7.76$) than multinationals ($M = 43.57$, $SD = 8.60$), $t(167) = 4.621$, $p < .001$. After controlling for age and race differences between the mononational and multinational groups, a one-way ANOVA was significant, $F(1, 165) = 11.39$, $p = .001$. Even when openness was controlled for in addition to age and race, tolerance for ambiguity scores for mononational and multinationals were significantly different, $F(1, 163) = 3.10$, $p = .048$.

**Comparing Mononational and Multinationals: Creativity**

Scores on the Transportation Creativity task ranged from 0 to 29, $M = 8.47$, $SD = 6.45$. Transportation Creativity scores were higher for mononational ($M = 8.96$, $SD = 6.51$) than multinationals ($M = 8.15$, $SD = 6.38$), but the difference was not statistically significant, $t(205) = .859$, $p = .391$. After controlling for age and race differences between the mononational and multinational groups, a one-way ANOVA was not significant, $F(1, 204) = .307$, $p = .580$. When openness was controlled for in addition to age and race, Transportation Creativity scores for mononational and multinationals were not significantly different, $F(1, 156) = .988$, $p = .322$.

Scores on the RAT ranged from 0 to 21, $M = 3.60$, $SD = 3.79$. RAT scores were higher for mononational ($M = 4.04$, $SD = 3.78$) than multinationals ($M = 3.35$, $SD = 3.80$), but the difference was not statistically significant, $t(163) = 1.099$, $p = .273$. After controlling for age and race differences between the mononational and multinational groups, a one-way ANOVA was
not significant, $F(1, 164) = .028, p = .868$. Even when openness was controlled for in addition to age and race, RAT scores for mononationals and multinationals were not significantly different, $F(1, 141) = .158, p = .691$.

**Comparing Mononationals and Multinationals: Perceived Adeptness and Enjoyment**

Scores on the Ten-Item Perceived Adeptness and Enjoyment Scale ranged from 10 to 70, $M = 37.473, SD = 17.42$. Perceived adeptness and enjoyment scores were significantly higher for mononationals ($M = 45.032, SD = 16.825$) than multinationals ($M = 32.847, SD = 16.13$), $t(164) = 4.619, p = .000$. After controlling for age and race differences between the mononational and multinational groups, a one-way ANOVA was significant, $F(1, 163) = 10.084, p = .002$. When openness was controlled for in addition to age and race, however, perceived adeptness and enjoyment scores for mononationals and multinationals were not significantly different, $F(1, 163) = .818, p = .367$.

**Multinationals Only: Overview**

Extent of multinationalism scores ranged from 0 to 8, $M = 3.43, SD = 1.67$. In order to differentiate between participants with limited multinational experience and participants with extensive multinational experience, extent of multinationalism scores were split evenly into low and high groups, coded as 0 and 1, respectively. Scores for the other independent variable, identity integration, were also split evenly into low and high groups, coded as 0 and 1, respectively.

**Multinationals Only: Cultural Intelligence**

Scores on the 20-Item, Four Factor Cultural Intelligence Scale ranged from 23 to 100, $M = 51.90, SD = 16.08$. In order to examine the relationship between the 2-level categorical variable of extent of multinationalism (low/high) and the continuous variable of cultural
intelligence, an independent samples t-test was done. 20-Item, Four Factor Cultural Intelligence scores were higher for high multinationals ($M = 52.83$, $SD = 16.84$) than low multinationals ($M = 50.98$, $SD = 15.40$), but the difference was not statistically significant, $t(107) = -.599$, $p = .550$.

In order to examine the relationship between the 2-level categorical variable of identity integration (low/high) and the continuous variable of cultural intelligence, an independent samples t-test was done. 20-Item, Four Factor Cultural Intelligence scores were higher for high identity integration multinationals ($M = 53.68$, $SD = 16.20$) than low identity integration multinationals ($M = 50.75$, $SD = 16.29$), but the difference was not statistically significant, $t(104) = -.924$, $p = .358$.

In order to examine the relationship between the 2-level categorical variable of interaction, between identity integration (low/high) and multinationalism (low/high), and the continuous variable of cultural intelligence, an ANOVA was done. 20-Item, Four Factor Cultural intelligence scores were highest for participants with high multinationalism and high identity integration ($M = 53.68$, $SD = 17.49$). Scores were lowest for participants with low multinationalism and low identity integration ($M = 48.52$, $SD = 15.41$). Participants with low identity integration and high multinationalism had the second lowest scores ($M = 52.63$, $SD = 17.00$), while participants with high identity integration and low multinationalism had the second highest scores ($M = 53.59$, $SD = 15.52$). The interaction effect was not, however, statistically significant, $F(106) = .367$, $p = .546$.

Scores on the David Thomas Cultural Intelligence Scale ranged from 49 to 159, $M = 118.25$, $SD = 20.50$. In order to examine the relationship between the 2-level categorical variable of extent of multinationalism (low/high) and the continuous variable of cultural intelligence, an independent samples t-test was done. Cultural intelligence scores were higher
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for high multinationals ($M = 121.38, SD = 21.10$) than low multinationals ($M = 115.76, SD = 19.77$), but the difference was not statistically significant, $t(172) = -1.806, p = .073$.

In order to examine the relationship between the 2-level categorical variable of identity integration (low/high) and the continuous variable of cultural intelligence, an independent samples t-test was done. David Thomas Cultural Intelligence scores were higher for high identity integration multinationals ($M = 129.25, SD = 11.68$) than low identity integration multinationals ($M = 128.68, SD = 11.97$), but the difference was not statistically significant, $t(105) = .247, p = .805$.

In order to examine the relationship between the 2-level categorical variable of interaction, between identity integration (low/high) and multinationalism (low/high), and the continuous variable of cultural intelligence, an ANOVA was done. David Thomas Cultural Intelligence scores were highest for participants with high multinationalism and high identity integration ($M = 131.00, SD = 12.49$). Scores were lowest for participants with high identity integration and low multinationalism ($M = 126.96, SD = 11.51$). Participants with low identity integration and low multinationalism had the second lowest scores ($M = 127.64, SD = 11.85$), while participants with low identity integration and high multinationalism had the second highest scores ($M = 130.66, SD = 11.54$). The results were not statistically significant, $F(107) = .049, p = .825$.

**Multinationals Only: Tolerance for Ambiguity**

Scores on Budner’s Tolerance for Ambiguity Scale ranged from 27 to 66, $M = 43.57, SD = 8.60$. In order to examine the relationship between the 2-level categorical variable of extent of multinationalism (low/high) and the continuous variable of tolerance for ambiguity, an independent samples t-test was done. Tolerance for ambiguity scores were slightly higher for
high multinationals \((M = 43.96, SD = 8.60)\) than low multinationals \((M = 43.19, SD = 8.70)\), but the difference was not statistically significant, \(t(106) = -0.468, p = .640\).

In order to examine the relationship between the 2-level categorical variable of identity integration (low/high) and the continuous variable of tolerance for ambiguity, an independent samples t-test was done. Tolerance for ambiguity scores were significantly higher for high identity integration multinationals \((M = 45.72, SD = 9.07)\) than low identity integration multinationals \((M = 42.26, SD = 7.94)\), \(t(103) = -2.086, p = .039\).

In order to examine the relationship between the 2-level categorical variable of interaction, between identity integration (low/high) and multinationalism (low/high), and the continuous variable of tolerance for ambiguity intelligence, an ANOVA was done. Budner’s Tolerance for Ambiguity scores were highest for participants with high multinationalism and high identity integration \((M = 46.2, SD = 7.85)\). Scores were lowest for participants with low multinationalism and low identity integration \((M = 41.19, SD = 6.60)\). Participants with low identity integration and high multinationalism had the second lowest scores \((M = 43.13, SD = 8.91)\), while participants with high identity integration and low multinationalism had the second highest scores \((M = 45.37, SD = 10.01)\). The interaction effect was not, however, statistically significant, \(F(105) = .107, p = .744\).

**Multinationals Only: Creativity**

Scores on the Transportation Creativity task ranged from 0 to 29, \(M = 8.15, SD = 6.40\). In order to examine the relationship between the 2-level categorical variable of extent of multinationalism (low/high) and the continuous variable of creativity, an independent samples t-test was done. Transportation Creativity scores were higher for high multinationals \((M = 8.39, SD = 6.40)\) than low multinationals \((M = 7.52, SD = 6.30)\), but the difference was not statistically significant, \(t(106) = -0.718, p = .474\).
$SD = 6.50$) than low multinationals ($M = 7.95, SD = 6.32$), but the difference was not statistically significant, $t(135) = -.401, p = .689$.

In order to examine the relationship between the 2-level categorical variable of identity integration (low/high) and the continuous variable of creativity, an independent samples t-test was done. Transportation Creativity scores lower for high identity integration multinationals ($M = 7.53, SD = 5.29$) than low identity integration multinationals ($M = 9.69, SD = 7.62$), but the difference was not statistically significant, $t(97) = 1.60, p = .113$.

In order to examine the relationship between the 2-level categorical variable of interaction, between identity integration (low/high) and multinationalism (low/high), and the continuous variable of creativity, an ANOVA was done. Transportation Creativity scores were highest for participants with high multinationalism and low identity integration ($M = 10.40, SD = 7.46$). Scores were lowest for participants with high multinationalism and high identity integration ($M = 6.10, SD = 5.04$). Participants with high identity integration and low multinationalism had the second lowest scores ($M = 8.73, SD = 6.61$), while participants with low identity integration and low multinationalism had the second highest scores ($M = 8.79, SD = 7.87$). The results were not, however, statistically significant, $F(99) = 2.41, p = .124$.

Scores on the RAT ranged from 0 to 20, $M = 3.35, SD = 3.80$. In order to examine the relationship between the 2-level categorical variable of extent of multinationalism (low/high) and the continuous variable of creativity, an independent samples t-test was done. RAT scores were higher for high multinationals ($M = 3.48, SD = 4.08$) than low multinationals ($M = 3.24, SD = 3.60$), but the difference was not statistically significant, $t(106) = -.324, p = .747$.

In order to examine the relationship between the 2-level categorical variable of identity integration (low/high) and the continuous variable of creativity, an independent samples t-test
was done. RAT scores were lower for high identity integration multinationals ($M = 3.54, SD = 3.76$) than low identity integration multinationals ($M = 3.94, SD = 4.30$), $t(86) = .461, p = .646$.

In order to examine the relationship between the 2-level categorical variable of interaction, between identity integration (low/high) and multinationalism (low/high), and the continuous variable of creativity, an ANOVA was done. RAT scores were highest for participants with high multinationalism and low identity integration ($M = 4.50, SD = 4.85$). Scores were lowest for participants with high multinationalism and high identity integration ($M = 2.47, SD = 3.08$). Participants with low identity integration and low multinationalism had the second lowest scores ($M = 3.24, SD = 3.49$), while participants with high identity integration and low multinationalism had the second highest scores ($M = 4.29, SD = 4.07$). The results were not, however, statistically significant, $F(99) = 3.13, p = .080$.

**Multinationals Only: Perceived Adeptness and Enjoyment**

Scores on the Perceived Adeptness and Enjoyment Scale ranged from 10 to 70, $M = 32.85, SD = 16.13$. In order to examine the relationship between the 2-level categorical variable of extent of multinationalism (low/high) and the continuous variable of perceived adeptness and enjoyment, an independent samples t-test was done. Perceived adeptness and enjoyment scores were slightly higher for high multinationals ($M = 33.02, SD = 16.73$) than low multinationals ($M = 32.68, SD = 15.68$), but the difference was not statistically significant, $t(103) = -.107, p = .915$.

In order to examine the relationship between the 2-level categorical variable of identity integration (low/high) and the continuous variable of perceived adeptness and enjoyment, an independent samples t-test was done. Perceived adeptness and enjoyment scores were significantly higher for high identity integration multinationals ($M = 37.32, SD = 16.78$) than low identity integration multinationals ($M = 29.16, SD = 14.87$), $t(102) = -2.628, p = .010$. 
In order to examine the relationship between the 2-level categorical variable of interaction, between identity integration (low/high) and multinationalism (low/high), and the continuous variable of perceived adeptness and enjoyment, an ANOVA was done. Perceived adeptness and enjoyment scores were highest for participants with high identity integration and high multinationalism ($M = 38.81, SD = 16.06$). Scores were lowest for participants with low multinationalism and low identity integration ($M = 26.04, SD = 12.83$). Participants with low identity integration and high multinationalism had the second lowest scores ($M = 31.59, SD = 16.07$), while participants with high identity integration and low multinationalism had the second highest scores ($M = 35.30, SD = 17.92$). The interaction effect was not, however, statistically significant, $F(104) = 2.10, p = .151$.

Discussion

This research examined the effects of the multinational experience on individuals’ cultural intelligence, creativity, and tolerance for ambiguity. The relationship between extent of multinationalism and individual’s perceived adeptness and enjoyment in culturally diverse environments was also explored. It was predicted that multinational individuals would be more culturally intelligent, creative, and exhibit higher tolerance for ambiguity than mononationals. Similarly, among multinationals, those with more extensive multinational experience were expected to exhibit higher levels of the three main dependent variables. It was also predicted that multinationals with high identity integration would have higher cultural intelligence, creativity, and tolerance for ambiguity than multinationals with low identity integration.

Comparing Mononationals and Multinationals

With regard to the comparison between mononationals and multinationals, the direction of the association between multinational status (mononational/multinational) and the three, main
dependent variables, was opposite that which was hypothesized. Although only some results were statistically significant, the consistency of mononational’s higher scores across all variables of interest is rather convincing. Although initially surprising, the results make sense upon further examination of the multinational sample, and after knowing that the direction of association was reversed when low and high multinationals were compared. All but ten percent of multinational participants reported that they were students, university faculty members/administrators, or researchers. Although this information was not collected, it is highly probable that the vast majority of multinational participants in the study were recruited from the International Center at the University of Michigan—a resource for international faculty, staff, and students—or one of the subject pools—comprised almost entirely of freshman and sophomore undergraduates. This would mean that the majority of multinational participants in the study have made a recent transition to the United States, in the last few months or years, to pursue their academic or professional goals.

A large body of research on stereotyping has shown that being a minority individual within a social group can be emotionally and cognitively taxing and can negatively impact individual performance (Richeson & Nussbaum, 2004; Steele, 1997; Thompson & Sekaquaptewa). It makes sense that multinational participants in this study would report lower levels of competencies (cultural intelligence, tolerance for ambiguity, and creativity) because their recent transition has made them more aware of their shortcomings and the negative aspects of their minority status. Furthermore, cultural intelligence research by Thomas and Inkson (2004) also suggests that moving to a new country causes emotional instability and higher levels of stress, until an individual eventually adjusts. They explain that “When everything and everyone seems to be working against you, it is extremely difficult to see the situation as interesting and a
meaningful learning experience.” Mononational’s significantly higher scores on the perceived adeptness and enjoyment scale provide further evidence of this effect. It seems plausible that mononationalists, who have not experienced the challenges of acculturation, may systematically overestimate their competence, confidence, and satisfaction when asked about hypothetical cross-cultural situations.

The results of the study showed that mononationalists were significantly more tolerant to ambiguity than multinationals, even after controlling for age, race, and openness differences. These results correspond with the notion that multinationals who have made a relatively recent cultural transition—an experience full of uncertainty—would be more averse to the ambiguous situations described in Budner’s scale.

Also, the scores of mononationalists were significantly higher for the 20-Item, Four Factor Cultural Intelligence Scale. It is important to note, however, that a significant difference was not found between mononationalists’ and multinationals’ scores on the David Thomas Cultural Intelligence Scale. Additionally, controlling for mononautal’s higher levels of openness yielded conflicting results for the two cultural intelligence scales. Although the results of this study are inconclusive about the relationship between multinational status (mononational/multinational) and cultural intelligence, it may be that multinationals are, in fact, more culturally intelligent, but that their self-perceptions (as reflected in answers to self-report scales) of cultural intelligence are temporarily diminished following a recent transition to a new national culture.

Study results suggest that there is not a significant difference in creativity between mononationalists and multinationals. Although previous creativity and innovation research has shown that culturally diverse teams and individuals are likely to be more creative, recent work
has shown that the superior creativity of individuals with multiple social identities is domain specific (Cheng, Sanchez-Burks, Lee, 2007). Both the transportation task and RAT measure general creativity. Future research should measure both general creativity and culture-related creativity. Also, the non-significant higher scores of mononationalists may be explained by the fact that successful completion of both creativity tasks relied on participants’ strong command of the English language. Although participants were not asked to report their English language proficiency, 75% of multinationals reported that English was not their first language, whereas only 20% of mononationalists reported that English was not their first language. Multinationals may have been disadvantaged on the creativity tasks, possibly resulting in mononationalists’ marginally higher scores. In the future, less verbally-focused creativity tasks should be used.

The potential effect of recent cultural transition makes it difficult to decisively conclude whether or not mononationalists or multinationals are more culturally intelligent, creative, or tolerant to ambiguity. If this study were to be replicated, researchers should conduct a pre-screening and explicitly ask each participant the amount of time since he/she last moved to a new country. By including in the study both multinationals who have recently adjusted to a new national culture and multinationals who have not, any transition effect would be reduced.

**Multinationals Only**

It is important to note that no results within this part of the analysis were statistically significant. Therefore, this research should be replicated to confirm or reject the (non-significant) patterns observed in this initial investigation. With this limitation in mind, results can still be explored with caution.

The predicted direction of association between both independent variables, extent of multinationalism and extent of identity integration, and two dependent variables, cultural
intelligence and tolerance for ambiguity, was observed. Also, results supported the predicted relationship between the interaction variable (extent of multinationalism and extent of identity integration) and both cultural intelligence and tolerance for ambiguity. Participants with both high identity integration and high multinationalism were the most culturally competent and tolerant to ambiguity of all multinationals.

The superior competence of multinationals with extensive multinational experience and high identity integration was further supported by the fact that such individuals had the highest perceived adeptness and enjoyment scores. It makes sense that individuals with high multinationalism and high identity integration would feel more capable and gain satisfaction from working in culturally diverse settings. It seems plausible, since such individuals have had the opportunity to become more comfortable and competent in cross-cultural situations through previous experiences.

Although high multinationals scored higher than low multinationals on both creativity tasks, high identity integrators scored lower than low multinationals. Creativity was greatest among high multinationals with low identity integration. Until now, identity integration research has been limited to biculturals. It may be that when many social identities are at play, as is the case for most multinationals, identity integration is not as instrumental in creativity. Future research should investigate this question further.

**Implications and Future Research**

Results from this study suggest that extent of multinationalism generally predicts higher cultural intelligence, tolerance for ambiguity, and creativity, but that transitioning to a new national culture can temporarily diminish competencies, due to frustration and reduced self-confidence.
Future research should, first, examine whether or not the transition effect observed in this study, is replicable. If there is further evidence to support this transition effect, research should, second, compare people with limited multinational experience (low multinationals) and people with extensive multinational experience (high multinationals) on duration of adjustment period, after transitioning to a new national culture. Although a recent transition to a new national culture may temporarily diminish a multinational’s cultural intelligence, creativity, and tolerance for ambiguity, the effect may be greater for a multinational who is making his/her first transition (from country 1 to country 2) than for a multinational who is making his/her fifth transition (from country 5 to country 6). Third, future research should replicate this study, but use real-world performance measures of cultural intelligence, creativity, and tolerance for ambiguity, instead of self-report scales. This would likely involve observation of participants at work, co-workers reports of participants’ competencies, and/or a consideration of general performance outcomes (i.e. salary, promotions, etc.). Although a more extensive process, this measurement approach would help researchers understand whether the transition effect observed in this study genuinely undermines individuals’ competencies (and in turn, performance) or simply worsens individuals’ self-perceived competencies.

Additionally, future research should seek to refine our understanding of the multinational population. By identifying individual characteristics that are more prevalent among multinationals, future investigators will be able to control for such factors. For example, if it were found that multinationals are more highly educated than mononationalists, level of education would need to be controlled for, so as not to misattribute higher cultural intelligence to multinational experience, rather than education. Finally, measures of multinationalism should be refined.
As corporations, governmental organizations, and educational institutions increasingly expand their reach cross-nationally, taking best advantage of the benefits of cultural diversity will become critical to achieving successful outcomes. In a corporate setting, that would mean gaining a unique competitive advantage. It may be that individuals with multinational experience provide one way of both avoiding the pitfalls of diversity and facilitating team innovation and collaboration. Although this research only begins to chip away at the question of whether multinationals do provide competitive advantage, results suggest that such individuals are valuable assets in the workplace. As multinationals are better understood through further research, talent acquisition and other business professionals will gain valuable insights about how to stay competitive in a rapidly globalizing world.
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Appendix A: 20-Item, Four Factor Cultural Intelligence Scale

**Instructions**
Select the response that best describes your capabilities. Select the answer that BEST describes you AS YOU REALLY ARE.

**CQ-Strategy Questions**

1. I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.

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2. I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.

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3. I am conscious of the cultural knowledge as I interact with people from a culture that is unfamiliar to me.

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4. I check the accuracy of my cultural knowledge as I interact with people from different cultures.

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**CQ-Knowledge Questions**

5. I know the legal and economic systems of other cultures.

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6. I know the rules (e.g. vocabulary, grammar) of other languages.

   1                2                3                4                5
   Strongly Disagree          Strongly Agree

7. I know the cultural values and religious beliefs of other cultures.

   1                2                3                4                5
   Strongly Disagree          Strongly Agree

8. I know the marriage systems of other cultures.

   1                2                3                4                5
   Strongly Disagree          Strongly Agree

9. I know the arts and crafts of other cultures.

   1                2                3                4                5
   Strongly Disagree          Strongly Agree

10. I know the rules from expressing non-verbal behaviors in other cultures.

    1                2                3                4                5
    Strongly Disagree          Strongly Agree

**CQ-Motivation Questions**

11. I enjoy interacting with people from different cultures.

    1                2                3                4                5
    Strongly Disagree          Strongly Agree

12. I am confident that I can socialize with locals in a culture that is unfamiliar to me.

    1                2                3                4                5
    Strongly Disagree          Strongly Agree

13. I am sure I can deal with the stresses of adjusting to a culture that is new to me.

    1                2                3                4                5
    Strongly Disagree          Strongly Agree
14. I enjoy living in cultures that are unfamiliar to me.

1                2                3                4                5
Strongly Disagree          Strongly Agree

15. I am confident that I can get accustomed to the shopping conditions in a different culture.

1                2                3                4                5
Strongly Disagree          Strongly Agree

**CQ-Behavior Questions**

16. I change my verbal behavior (e.g. accent, tone) when a cross-cultural interaction requires it.

1                2                3                4                5
Strongly Disagree          Strongly Agree

17. I use pause and silence differently to suit different cross-cultural situations.

1                2                3                4                5
Strongly Disagree          Strongly Agree

18. I vary the rate of my speaking when a cross-cultural situation requires it.

1                2                3                4                5
Strongly Disagree          Strongly Agree

19. I change my non-verbal behavior when a cross-cultural interaction requires it.

1                2                3                4                5
Strongly Disagree          Strongly Agree

20. I alter my facial expressions when a cross-cultural interaction requires it.

1                2                3                4                5
Strongly Disagree          Strongly Agree
Appendix B: David Thomas Cultural Intelligence Scale

**Instructions for First Section**
The purpose of this section is to help you assess your ability to adapt to living in another culture and to interact with people of other cultures. Please choose the response that best describes you right now.

**Questions**

1. I try to understand people’s thoughts and feelings when I talk to them.
   
   1  2  3  4  5  6  7
   Strongly Disagree  Strongly Agree

2. I believe that I can accomplish what I set out to do, even in an unfamiliar setting.
   
   1  2  3  4  5  6  7
   Strongly Disagree  Strongly Agree

3. I have a realistic perception of how others see me.
   
   1  2  3  4  5  6  7
   Strongly Disagree  Strongly Agree

4. I believe that all people, of whatever race, are equally valuable.
   
   1  2  3  4  5  6  7
   Strongly Disagree  Strongly Agree

5. I am the kind of person who gives people who are different from me the benefit of the doubt.
   
   1  2  3  4  5  6  7
   Strongly Disagree  Strongly Agree

6. If my ideas conflicted with those of others who are different from me, I would follow my ideas rather than theirs.
   
   1  2  3  4  5  6  7
   Strongly Disagree  Strongly Agree
7. I can tell how people are feeling, even if they are different from me.

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8. I feel free to keep my personal values, even among those who do not share them.

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9. I believe that all cultures have something worthwhile to offer.

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10. I prefer to decide from my own values, even when those around me have different values.

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11. I pay attention to how people’s cultural differences affect their perceptions of me.

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12. My personal value system is based on my own beliefs, not on conformity to other people’s standards.

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13. I consider the impact my actions have on others.

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14. I expect that others will respect me, regardless of their cultural background.

1  2  3  4  5  6  7
Strongly Disagree       Strongly Agree

15. I feel more stress when dealing with people from a different cultural background.

1  2  3  4  5  6  7
Strongly Disagree       Strongly Agree

16. When I am with people who are different from me I interpret their behavior in the context of their culture.

1  2  3  4  5  6  7
Strongly Disagree       Strongly Agree

17. I have more trouble getting things done with people from a different cultural background.

1  2  3  4  5  6  7
Strongly Disagree       Strongly Agree

18. When I am in a new or strange environment, I keep an open mind.

1  2  3  4  5  6  7
Strongly Disagree       Strongly Agree

19. People from different cultural backgrounds enjoy being around me.

1  2  3  4  5  6  7
Strongly Disagree       Strongly Agree

20. In talking with people from other cultures, I pay attention to their body language.

1  2  3  4  5  6  7
Strongly Disagree       Strongly Agree
Instructions for Second Section
When responding to the following set of questions, please think about contact that you have had with people from different cultures. Please indicate how strongly you agree or disagree with each of the following statements.

Questions

21. I select and organize the cultural knowledge I need to use.

1 2 3 4 5 6 7
Strongly Disagree Strongly Agree

22. I am aware that I need to plan my course of action.

1 2 3 4 5 6 7
Strongly Disagree Strongly Agree

23. I ask myself how their behavior fits with what I already know about their culture.

1 2 3 4 5 6 7
Strongly Disagree Strongly Agree

24. I try to understand how my behavior will be perceived.

1 2 3 4 5 6 7
Strongly Disagree Strongly Agree

25. I try to understand exactly what I am trying to accomplish.

1 2 3 4 5 6 7
Strongly Disagree Strongly Agree

26. I think a lot about the influence that culture has on me and on them.

1 2 3 4 5 6 7
Strongly Disagree Strongly Agree
27. I am aware of the cultural knowledge that I use.

1  2  3  4  5  6  7
Strongly Disagree  Strongly Agree

28. I am very interested in how my own thinking works when I make judgments about them.

1  2  3  4  5  6  7
Strongly Disagree  Strongly Agree

29. I ask myself how I am feeling.

1  2  3  4  5  6  7
Strongly Disagree  Strongly Agree

30. I really enjoy analyzing the reasons or causes for their behavior.

1  2  3  4  5  6  7
Strongly Disagree  Strongly Agree
Appendix C: Budner’s Tolerance for Ambiguity Scale

Instructions
Please respond to the following statements by indicating the extent to which you agree or disagree with them.

Questions

1. An expert who doesn’t come up with a definite answer probably doesn’t know too much.

   1                2                3                4                5
   Strongly Disagree          Strongly Agree

2. I would like to live in a foreign country for a while.

   1                2                3                4                5
   Strongly Disagree          Strongly Agree

3. There is really no such thing as a problem that can’t be solved.

   1                2                3                4                5
   Strongly Disagree          Strongly Agree

4. People who fit their lives to a schedule probably miss most of the joy of living.

   1                2                3                4                5
   Strongly Disagree          Strongly Agree

5. A good job is one where what is to be done and how it is to be done are always clear.

   1                2                3                4                5
   Strongly Disagree          Strongly Agree

6. It is more fun to tackle a complicated problem than to solve a simple one.

   1                2                3                4                5
   Strongly Disagree          Strongly Agree
7. In the long run it is possible to get more done by tackling small, simple problems rather than large and complicated ones.

1   2   3   4   5  
Strongly Disagree                     Strongly Agree

8. Often the most interesting and stimulating people are those who don’t mind being different and original.

1   2   3   4   5  
Strongly Disagree                     Strongly Agree

9. What we are used to is always preferable to what is unfamiliar.

1   2   3   4   5  
Strongly Disagree                     Strongly Agree

10. People who insist upon a yes or no answer just don’t know how complicated things really are.

1   2   3   4   5  
Strongly Disagree                     Strongly Agree

11. A person who leads an even, regular life in which few surprises or unexpected happenings arise really has a lot to be grateful for.

1   2   3   4   5  
Strongly Disagree                     Strongly Agree

12. Many of our most important decisions are based upon insufficient information.

1   2   3   4   5  
Strongly Disagree                     Strongly Agree

13. I like parties where I know most of the people more than ones where all or most of the people are complete strangers.

1   2   3   4   5  
Strongly Disagree                     Strongly Agree
14. Teachers or supervisors who hand out vague assignments give one a chance to show initiative and originality.

```
1 2 3 4 5
Strongly Disagree    Strongly Agree
```

15. The sooner we all acquire similar values and ideals the better.

```
1 2 3 4 5
Strongly Disagree    Strongly Agree
```

16. A good teacher is one who makes you wonder about your way of looking at things.

```
1 2 3 4 5
Strongly Disagree    Strongly Agree
```
Appendix D: Transportation Creativity Task

_Instructions_

Below you will be given a category of objects and you must think about and list members of that category. There are no right or wrong answers. You should focus on listing as many members of the given category as possible. The examples you generate can be commonplace or as out of the ordinary as you like.

Category: Modes of transportation (excluding conventional modes: car, bus, bike, airplane, boat, train, taxi, cab, subway.

1. _______________________________________
2. _______________________________________
3. _______________________________________
4. _______________________________________
5. _______________________________________
6. _______________________________________
7. _______________________________________
8. _______________________________________
9. _______________________________________
10. _______________________________________
11. _______________________________________
12. _______________________________________
13. _______________________________________
14. _______________________________________
15. _______________________________________
16. _______________________________________
17. _______________________________________
18.________________________________________
19.________________________________________
20.________________________________________
21.________________________________________
22.________________________________________
23.________________________________________
24.________________________________________
25.________________________________________
26.________________________________________
27.________________________________________
28.________________________________________
29.________________________________________
30.________________________________________
Appendix E: Remote Association Test (RAT)

**Instructions**
Each of the twenty problems below consists of three “clue” words. For each problem, please think of a fourth word that relates to each of the other three “clue” words. Write your response on the line alongside each problem.

Example: Mouse-Sharp-Blue Answer: Cheese

**Questions**

1. Falling-Actor-Dust ____________ Answer (not shown): Star
2. Broken-Clear-Eye ____________ Answer (not shown): Glass
3. Skunk-Kings-Boiled ____________ Answer (not shown): Cabbage
4. Widow-Bite-Monkey ____________ Answer (not shown): Spider
5. Bass-Complex-Sleep ____________ Answer (not shown): Deep
6. Coin-Quick-Spoon ____________ Answer (not shown): Silver
7. Gold-Stool-Tender ____________ Answer (not shown): Bar
8. Time-Hair-Stretch ____________ Answer (not shown): Long
9. Cracker-Union-Rabbit ____________ Answer (not shown): Jack
10. Bald-Screech-Emblem ____________ Answer (not shown): Eagle
12. Manner-Round-Tennis ____________ Answer (not shown): Table
13. Off-Trumpet-Atomic ____________ Answer (not shown): Blast
14. Playing-Credit-Report ____________ Answer (not shown): Card
15. Rabbit-Cloud-House ____________ Answer (not shown): White
16. Room-Blood-Salts ____________ Answer (not shown): Bath
17. Salt-Deep-Foam ____________ Answer (not shown): Sea
18. Square-Cardboard-Open

19. Water-Tobacco-Stove

20. Ache-Hunter-Cabbage

21. Chamber-Staff-Box

22. High-Book-Sour

Answer (not shown): Box
Answer (not shown): Pipe
Answer (not shown): Head
Answer (not shown): Music
Answer (not shown): Note
Appendix F: Perceived Adeptness and Enjoyment Scale

Instructions
Please respond to the following statements by indicating the extent to which you agree or disagree with them.

Questions

1. I ENJOY working in new situations with different types of people.

  1  2  3  4  5  6  7
  Strongly Disagree  Strongly Agree

2. I am GOOD working in new situations with different types of people.

  1  2  3  4  5  6  7
  Strongly Disagree  Strongly Agree

3. I am GOOD working in new situations because I HAVE DONE IT MANY TIMES BEFORE.

  1  2  3  4  5  6  7
  Strongly Disagree  Strongly Agree

4. I am GOOD working in new situations because I AM CONFIDENT IN MYSELF.

  1  2  3  4  5  6  7
  Strongly Disagree  Strongly Agree

5. I am GOOD working in new situations because I CAN RELATE TO OTHER PEOPLE.

  1  2  3  4  5  6  7
  Strongly Disagree  Strongly Agree

6. I am GOOD working in new situations because I CAN COMMUNICATE WELL WITH MOST PEOPLE.

  1  2  3  4  5  6  7
  Strongly Disagree  Strongly Agree
7. I ENJOY working in new situations because I HAVE DONE IT MANY TIMES BEFORE.

1 2 3 4 5 6 7
Strongly Disagree Strongly Agree

8. I ENJOY working in new situations because I AM CONFIDENT IN MYSELF.

1 2 3 4 5 6 7
Strongly Disagree Strongly Agree

9. I ENJOY working in new situations because I CAN RELATE TO OTHER PEOPLE.

1 2 3 4 5 6 7
Strongly Disagree Strongly Agree

10. I ENJOY working in new situations because I CAN COMMUNICATE WELL WITH MOST PEOPLE.

1 2 3 4 5 6 7
Strongly Disagree Strongly Agree
Appendix G: TIPI Personality Scale

**Instructions**
Here are a number of personality traits that may or may not apply to you. Please indicate the extent to which you agree or disagree with each of the following statements. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

**Questions**

*I see myself as…*

1. Extraverted, enthusiastic.

   1  2  3  4  5  6  7
   Strongly Disagree  Strongly Agree

2. Critical, quarrelsome.

   1  2  3  4  5  6  7
   Strongly Disagree  Strongly Agree

3. Dependable, self-disciplined.

   1  2  3  4  5  6  7
   Strongly Disagree  Strongly Agree

4. Anxious, easily upset.

   1  2  3  4  5  6  7
   Strongly Disagree  Strongly Agree

5. Open to new experiences, complex.

   1  2  3  4  5  6  7
   Strongly Disagree  Strongly Agree
6. Reserved, quiet.
   1 2 3 4 5 6 7
   Strongly Disagree  Strongly Agree

7. Sympathetic, warm.
   1 2 3 4 5 6 7
   Strongly Disagree  Strongly Agree

8. Disorganized, careless.
   1 2 3 4 5 6 7
   Strongly Disagree  Strongly Agree

   1 2 3 4 5 6 7
   Strongly Disagree  Strongly Agree

    1 2 3 4 5 6 7
    Strongly Disagree  Strongly Agree
Appendix H: Multinational Experience Questions

Questions

1. List all countries in which you have lived for at least 1 year each (NOTE: does not include travel). Please include the United States (if applicable).

   Country A (lived here the longest amount of time): ________________________
   Country B (lived here the second longest amount of time): ________________________
   Country C (lived here the third longest amount of time): ________________________
   Country D (lived here the fourth longest amount of time): ________________________
   Country E (lived here the fifth longest amount of time): ________________________

2. How long did you live in Country A (in years)? __________

3. Indicate your purpose for living in Country A:

   _____ Country of origin
   _____ For school or work
   _____ Family
   _____ Social purposes (e.g. Peace Corp member)
   _____ Other: ____________________________

4. With whom did you live while you were in Country A:

   _____ Local people of Country A
   _____ Non-local people, who are international
   _____ Non-local people, from my country of birth
5. How long did you live in Country B (in years)? __________

6. Indicate your purpose for living in Country B:
   ____ Country of origin
   ____ For school or work
   ____ Family
   ____ Social purposes (e.g. Peace Corp member)
   ____ Other: ___________________________

7. With whom did you live while you were in Country B:
   ____ Local people of Country B
   ____ Non-local people, who are international
   ____ Non-local people, from my country of birth

8. How long did you live in Country C (in years)? __________

9. Indicate your purpose for living in Country C:
   ____ Country of origin
   ____ For school or work
   ____ Family
   ____ Social purposes (e.g. Peace Corp member)
   ____ Other: ___________________________

10. With whom did you live while you were in Country C:
    ____ Local people of Country C
    ____ Non-local people, who are international
11. How long did you live in Country D (in years)? __________

12. Indicate your purpose for living in Country D:
   ___ Country of origin
   ___ For school or work
   ___ Family
   ___ Social purposes (e.g. Peace Corp member)
   ___ Other: ___________________________

13. With whom did you live while you were in Country D:
   ___ Local people of Country D
   ___ Non-local people, who are international
   ___ Non-local people, from my country of birth

14. How long did you live in Country E (in years)? __________

15. Indicate your purpose for living in Country E:
   ___ Country of origin
   ___ For school or work
   ___ Family
   ___ Social purposes (e.g. Peace Corp member)
   ___ Other: ___________________________
16. With whom did you live while you were in Country E:

_____ Local people of Country E

_____ Non-local people, who are international

_____ Non-local people, from my country of birth

17. I strongly identify with the culture of Country A.

1 2 3 4 5 6 7
Strongly Disagree Strongly Agree

18. I strongly identify with the culture of Country B.

1 2 3 4 5 6 7
Strongly Disagree Strongly Agree
Appendix I: Identity Integration Scale

**Instructions**
Do NOT complete this page unless you have lived in at least two countries, for at least one year each.

Please read the statements below and rate the extent to which they describe your experience. “A” will refer to the country you have lived in the longest. “B” will refer to the country you have lived in the second longest.

**Questions**

1. I have completely incorporated the culture of Country A and the culture of Country B into my identity.

   1                  2                  3                  4                  5                  6                  7
   Strongly Disagree       Strongly Agree

2. My ideals as a resident of Country A differ from my ideals as a resident of Country B.

   1                  2                  3                  4                  5                  6                  7
   Strongly Disagree       Strongly Agree

3. I feel conflicted between my identity as a resident of Country A and my identity as a resident of Country B.

   1                  2                  3                  4                  5                  6                  7
   Strongly Disagree       Strongly Agree

4. I keep everything about being a resident of Country A separate from being a resident of Country B.

   1                  2                  3                  4                  5                  6                  7
   Strongly Disagree       Strongly Agree

5. I am someone whose behavior switches between the cultural norms of Country A and the cultural norms of Country B.

   1                  2                  3                  4                  5                  6                  7
   Strongly Disagree       Strongly Agree
6. I feel torn between the expectations of being a resident of Country A and a resident of Country B.

1 2 3 4 5 6 7
Strongly Disagree  Strongly Agree

7. My self-concept seamlessly blends my identity as a resident of Country A and a resident of Country B.

1 2 3 4 5 6 7
Strongly Disagree  Strongly Agree

8. I do not feel any tension between my goals as a resident of Country A and a resident of Country B.

1 2 3 4 5 6 7
Strongly Disagree  Strongly Agree

9. Succeeding as a resident of Country A involves the same sides of myself as succeeding as a resident of Country B.

1 2 3 4 5 6 7
Strongly Disagree  Strongly Agree
Appendix J: Open-ended Questions for Multinationals

Instructions
Do NOT complete this page unless you have lived in at least two countries, for at least one year each.

Questions
1. List one key strength of your multinational background.

________________________________________________________________________
________________________________________________________________________

2. List one key challenge of being a multinational person.

________________________________________________________________________
________________________________________________________________________

3. Are there any other aspects of multinationalism that you believe are important that we have not touched upon in this survey?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Appendix K: Demographic Questions

**Instructions**
Please respond to the following statements by indicating the extent to which you agree or disagree with them.

**Questions**

1. Gender: _____ Male _____ Female

2. Age: _____

3. Race/Ethnicity:
   _____ American Indian/Alaska Native
   _____ Asian
   _____ Native Hawaiian or Other Pacific Islander
   _____ Black or African American
   _____ White
   _____ Hispanic or Latino
   _____ Other: ___________________________

4. Is English your first language? _____ Yes _____ No

5. What is your current occupation?
   _____ Student
   _____ Business person
   _____ University educator or administrator
   _____ Other: ___________________________
6. List your country of citizenship. ________________________________

7. List your country of birth. ________________________________
Table 1

Mononationals Versus Multinationals ($N = 251$)

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<th>Multinationals</th>
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Note. Gender was coded as Male = 1, Female = 0. Race was coded as White = 1, Non-White = 0. TIPI Scale questions were answered on a seven-point scale, 1 (Strongly Disagree) to 7 (Strongly Agree).