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TESTING THE MEDIATING ROLE OF LEADERS' BACKGROUND ON THE EFFECTS OF NATIONALITY ON GLOBAL MINDSET

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This study investigated the impact of nationality on the development of global mindset through an online survey administered to 243 leaders in the U.S. and Germany. The study found no statistically significant difference in global mindset between U.S. and German citizens; however, it did find that dual citizens have significantly higher global mindsets than citizens of a single country. The study also found that the effects of nationality on global mindset are mediated by the personal, educational, and professional factors in the leader's background. These findings suggest that fundamental factors, such as education and experience, are more important to global mindset than nationality.

Key words: Global mindset, dual citizenship, nationality, cross-national comparison, Germany, U.S. global leadership

INTRODUCTION

Globalization is ubiquitous in the 21st century as executives are compelled to optimize global business opportunities (Leung, Bhagat, Buchan, Erez, & Gibson, 2005). This trend is most evident in global foreign investments – which reached \$1.5 trillion in 2011 and declined by 18% to \$ 1.3 trillion in 2012 (United Nations Conference on Trade and Development UNCTAD, 2013). The imports of goods and services to the U.S. in 2012 reached more than \$2.7 trillion; exports were almost \$2.2 trillion (U.S. Census Bureau, 2013), both of which were the highest levels on record to date. For comparison, the U.S. GDP in 2012 was approximately \$15.6 trillion (CIA, 2013). While these numbers speak to the increasing trend towards expanded globalization – the cultural challenges that organizations face when engaging in global business expansion have consequently become exponentially salient. Capitalizing on global opportunities presents many challenges, including dealing with language barriers, cultural diversity, and ambiguity (Hofstede, 2001; House, Hanges, Javidan, Dorfman, & Gupta, 2004; Iles & Kaur, 1997). These abilities, skills, and perspectives leaders need to meet these challenges are perhaps best understood as the concept of global mindset (Begley & Boyd, 2003; Cascio & Aguinis, 2008). Gupta and Govindarajan (2002) define global mindset as being open and aware of cultural and market diversity with the ability to build business upon. Story and Barbuto (2011) describe global mindset as embracing both global business orientation and cultural intelligence in global endeavors.

The cognitive capabilities or mindsets of leaders are critical to the ability of organizations to deal with the increasing complexity, uncertain structures, and the accelerated pace of market and technological change that characterize the 21st Century global economy (Doz & Prahalad, 1991). Although there is no single definition of global mindset, it is described as one of the key attributes in global leadership (Kedia & Mukherji, 1999; Oddou, Mendenhall, & Ritchie, 2000; Osland, Taylor, & Mendenhall, 2009). Furthermore, global mindset appeared to be the key element of continuing global competitive advantage (Beechler & Javidan, 2007). With the apparent need for more globally minded leaders – the antecedents of global mindset are punctuated as central to scholars testing the phenomena. The importance of having globally minded leaders when engaging in international and global endeavors is not in question, however, the antecedents of global mindset has been fairly overlooked to date. Understanding the role that personal characteristics or national boundaries plays in global mindset development offers insights into the development and recruitment challenges facing human resources as we equip organizations to meet global challenges (Story, Barbuto, Luthans, & Bovaird, 2014).

This study tests the impact of citizenship and dual-citizenship for U.S. and German nationals on global mindset (cultural intelligence). The study also tests the relative impact of leaders' personal characteristics, education, and professional background on cultural intelligence.

THEORETICAL FRAMEWORK AND HYPOTHESES

Global Mindset

The concept of global mindset was first described and operationalized as the EPG profile consisting of ethnocentric (domestic focused), polycentric (foreign focused), and geocentric (global focused) thinking of senior executives (Perlmutter, 1965; 1969). About 20 years later, other authors began building on this work with expanded frameworks. Kedia and Mukherji (1999) related ethnocentrism (international strategy), polycentrism (multinational strategy), and geocentrism (transnational strategy) to the four mindsets of managers: defender, explorer, controller, and integrator (Baird, 1994). Bartlett and Ghoshal (2002) identified a transnational mindset similar to Perlmutter's geocentric mindset. Kefalas (1998) conceptualized global mindset as the integration of the mindset of a person, i.e. how a person is thinking (conceptualization) with how a person acts, i.e., tries to implement the mental model in the real world (contextualization). Story and Barbuto (2011) clarified the construct and identified four mindsets consisting of differing levels of global business acumen and cultural intelligence – with global mindset consisting of being high in both.

Mindset has a long history in cognitive psychology and lately also in organization theory (Gupta & Govindarajan, 2002; Neisser, 1967; Walsh, 1995). Scholars mostly focus on how people and organizations make sense of the environment and their interactions with it. Because people are permanently challenged by the ambiguity, complexity, and dynamism of information, they use cognitive filters called mindset to select and absorb the mass of information (Gupta & Govindarajan, 2002; Starbuck & Milliken, 1988).

Beechler and Javidan (2007) define global mindset as a person's ability to influence other individuals or organizations with culturally different backgrounds. Maznevski and Lane (2003) further define global mindset as the capability to perform in the global marketplace independent from a single country's perspective. Jeannet (2000) states that global mindset allows a person to focus on mutuality rather than differences in the global economy. We adopt the perspective of Story and Barbuto (2011) where global mindset is understood as having the business acumen and cultural intelligence needed to engage in global projects.

Some researchers study global mindset at the group or organization level (Bartlett & Ghoshal, 1992; Begley & Boyd, 2003). This study focuses on the individual where global mindset is the lens through which an individual sees the world combined with his or her cognitive capacity to synthesize across different cultures. (Clapp-Smith, Luthans, & Avolio, 2007). Other researchers define global mindset as a combination of global intellectual capital, global psychological capital, and global social capital (Beechler & Javidan, 2007; Danuser, 2009; Story, Youseff, Luthans, Barbuto & Bovaird, 2013; Swain, 2007); as global business orientation and cultural intelligence (Story, 2010); as integration, coordination, and responsiveness in a global context (Ransom, 2007); or as cosmopolitan orientation and cognitive diversity (Levy, 2000). This study defines global mindset as global business acumen and cultural intelligence (CQ), in which cultural intelligence is comprised of the components metacognitive, cognitive, behavioral and motivational CQ (Story & Barbuto, 2011).

Global business acumen. Global business acumen is the primary requirement for successful business management. (Rhinesmith, 2001). The concept of global business acumen is complex as leaders must have a broad understanding of both global and local political, financial, and economic institutions and systems. Global business acumen requires that leaders have the ability to translate this knowledge into effective business policy (Story and Barbuto, 2011).

Insightfulness is the measure of business acumen used in this study rather than knowledge per se. Insight is "digested" knowledge. Insightful leaders possess knowledge and the ability to apply that knowledge effectively to the issues global leaders face. Business acumen connects the right business strategy with the global

marketplace in order to make money (Charan, 2006). Global business acumen consists of an in depth knowledge of the local and global markets, financial alertness, deliberate marketing, innovative management (Cohen, 2007).

Cultural intelligence. Cultural intelligence in this study, is adapted from Earley and Ang's (2003) and Ang and Van Dyne's (2008) model of cultural intelligence with its components of cognitive CQ, metacognitive CQ, motivational CQ, and behavioral CQ. Cultural intelligence is a particular kind of intelligence concentrated on the capability to deal appropriately with cultural diversity. A cultural intelligent individual adjusts successfully to unknown cultural contexts (Earley & Ang, 2003). Cultural intelligence is much more than just knowing about the differences among cultures (Livermore, 2011). Cultural intelligence in this model refers to an awareness, understanding, and appreciation of cultures (Story & Barbuto, 2011). Consequently, a culturally intelligent leader is able to integrate information from different cultures to obtain a global view that is subject to minimal cultural bias.

Cognitive aspect of cultural intelligence (cognitive CQ). The cognitive aspect of cultural intelligence refers to the knowledge of rules, behavior, history, and traditions of a foreign culture or the mental understanding of a foreign culture. It refers to understanding the similarities and differences among cultures and why people are as they are (Earley & Ang, 2003). While people in a certain culture are not entirely homogeneous, the underlying elements of a culture are the same. This aspect of CQ is vital because it enables leaders to adjust to foreign cultures and their impacts on individual behavior, goals, and aspirations.

Metacognitive aspect of cultural intelligence (metacognitive CQ). A person's metacognitive CQ alludes to the level of cognitive cross-cultural awareness in international settings (Ang & Van Dyne, 2008). It refers to the questioning, reflecting, and refining of cultural assumptions and includes adjustments in behavior in different cultural settings, and ultimately to appropriate cultural behavior. Livermore (2010) interprets metacognitive CQ as the strategic use of cultural knowledge to detect what is happening in context.

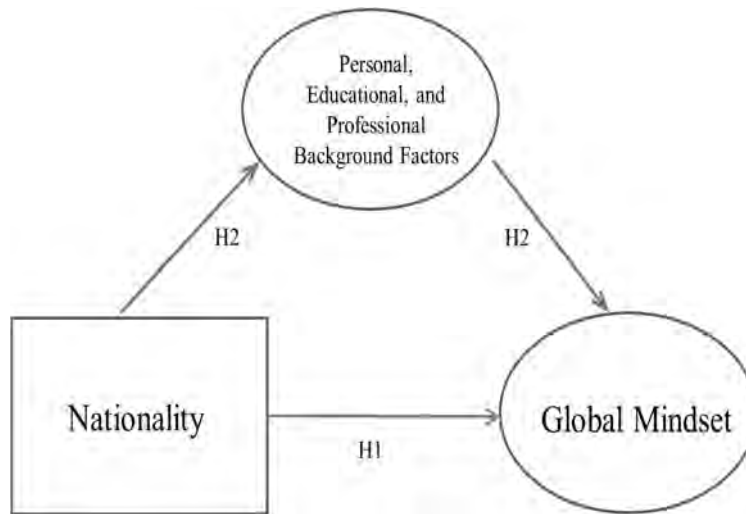
Motivational aspect of cultural intelligence (motivational CQ). Knowledge of a business partner's way of doing business is necessary but not sufficient. It is essential to be capable and motivated to respond in a culturally appropriate way (Blanton & Barbuto, 2005; Earley, Murnieks, & Mosakowski, 2007). Recent work found that motivational intelligence provides a partial mediation between the relationships between core self-evaluation, ethnocentrism, and study abroad success (Barbuto, Beenen, & Tran, 2015). The motivational aspect of cultural intelligence refers to the intrinsic interest in foreign cultures, and the desire to behave appropriately. Together, these three aspects of CQ suggest that the leader has the knowledge, the intent, and the ability to use CQ to lead effectively in culturally-diverse situations.

HYPOTHESES

This study determines if national differences between the U.S. and Germany affect the development of global mindset, and if the effects of these national differences on global mindset are mediated by the impacts of national differences on the leader's personal, educational, and professional backgrounds, see Figure 1.

Impacts of national identity on global mindset. The education systems in Germany and the U.S. differ and the differences may impact the development of a global mindset. In Germany, it is mandatory to learn a foreign language whereas in the U.S. students are merely encouraged to learn a foreign language. In 2007, 23% and in 2009, 26% of German students already participated in studying abroad programs (Deutscher Akademischer Austausch Dienst [German Academic Exchange Service] & Hochschul Informations System GmbH [University Information System LLC], 2009; Heublein, Schreiber, & Hutzsch, 2011). In the U.S., less than 2% of the students participated in study abroad programs in any given year (NAFSA - Association of International Educators, 2013; U.S. Department of Education, 2006). These differences both in language requirements and typical exposure to international experiences may lead to comparatively increased global mindset amongst German populations.

Figure 1: Theoretical Framework and Path Analysis



International exposure of individuals might also be different in Germany. The people living in the U.S. are exposed to many foreigners coming to their country because the U.S. has an open immigration policy and is the destination for many people seeking better opportunities than in their home countries. Germany, by contrast, is a small country compared with the U.S. and is situated in the heart of Europe with a restricted immigration policy for people outside the European Union. Thus, Germans might travel abroad more often than might people from the U.S. and therefore might be more often exposed to foreign cultures through traveling abroad.

H1: The nationality of business leaders has an impact on their global mindset.

This study tests a mediation model to describe the effect nationality as independent variable has on global mindset as dependent variable or also called outcome variable through leaders' personal, educational, and professional backgrounds as mediator variables. Mediators demonstrate how and why certain effects occur (Baron & Kenny, 1986). To model the direct and mediating relationships among global mindset, nationality, and the influences of personal, educational, or professional background factors, path analysis was used (Anderson & Gerbing, 1988). Having a foreign family member (Kets de Vries & Florent-Treacy, 2002; Osland & Bird, 2008) and immersing in the foreign culture were used as proxy for personal background. International education (Javidan, Hough, & Bullough, 2011; Rhinesmith, 1992) and the interest in foreign country through reading books or newspapers, or other periodicals, watching TV programs or movies about foreign countries (self-studying) was used as proxy for educational background. Experience with international working assignments (Bingham, Felin, & Black, 2000; Black, 1999; Oddou et al., 2000) and working with foreigners domestically was used as proxy for professional background. To answer the research question: To what extent is the impact of nationality on the development of global mindset affected by the personal, educational, and professional factors of business leaders? The following hypothesis was tested:

H2: The impact of nationality on global mindset is mediated by business leaders' personal, educational, and professional factors.

METHOD

Sample

The target population consists of U.S., German, and dual- citizen leaders of for-profit companies of varying sizes in the manufacturing or service sector. The German version of the survey was sent to leaders with a German business address and the English version to leaders with a U.S. business address. The purposeful sample of 243 U.S. and German senior business leaders includes Chief Executive Officers, vice presidents, senior managers, or business owners in Germany and the U.S.

Demographic Characteristics of the Sample

Twelve of the 280 participants were excluded from the sample because they did not have either a German or U.S. citizenship. Another 25 participants were deleted from the study because they submitted insufficient data, resulting in a sample of 243 participants. The final sample included 120 (49.4%) participants with a German citizenship, 100 (41.2%) with a U.S. citizenship, and 23 (9.5%) with two or more citizenships.

One hundred and sixteen participants (74.9%) were males, among those 44 (37.9%) were U.S. citizens, 65 (56.3%) were German citizens, and 7 (6.0%) were dual citizens. Among the forty-one female participants, 16 (39.0%) were U.S., 17 (41.5%) German, and eight (19.5%) were dual citizens. None of the participants was younger than 36, 28.4% were between 36 and 45, 39.7% were between 46 and 55, 21.3% were between 56 and 65, and 10.6% were over 65. The majority (52.5%) of the participants had a master's degree, 16.6% a doctoral degree, 23.7% a bachelor's degree, 2.9% a high school diploma, and 4.3% an apprenticeship. One hundred and sixty-five (72.4%) held upper management and executive level positions such as senior director, general manager, or CEO. Seventy-six (33.3%) of these were owners, presidents, or CEOs. The German citizens worked primarily for small companies (56.3%), whereas U.S. citizens worked for small companies (35.6%), or for large companies (37.5%). Participants with dual citizenships also worked mostly for small companies (41.4%).

Survey Instrument

The survey instrument consists of five parts: demographics, personal background, educational background, professional background, and global mindset. The demographics and background questions consist of categorical questions, short open-ended questions and frequency scales (Fowler, 1995). The global mindset construct was measured by the metacognitive CG, cognitive CQ, and motivational CQ scales developed by Ang and Van Dyne's (2008) cultural intelligence scale, and six questions that measured business acumen. Each scaled used a 7-point-Likert scale ranging from strongly disagree to strongly agree.

Back-translation. Conducting research across countries is controversial in the literature. Some researchers rely on English questionnaires (e.g., Javidan et al., 2011) assuming that every respondent accurately understands the questions. To ensure accuracy of translation, many researchers suggest back-translation with two bilinguals with one translating from the source to the target language, the second blindly translating back from the target to the source (Barbuto, Story & Gifford, 2008; Brislin, 1970). However, a literal translation may not convey the meaning of a sentence. For example, the "English translation of 'Das Leben in vollen Zügen genießen' would be 'Live life to the full', not [the literal translation] 'Enjoy life in full trains'" (Harkness, 2003, p. 42). Therefore, Brislin (1970) suggests that monolingual raters should examine both the original and the back-translated versions for meaning rather than for literal translation.

In this study, the translation into the target language, German was done by the lead author whose native language is German. A bilingual native English speaker conducted the back-translation. Three monolingual native English speakers examined the original and back-translated versions for accuracy. In addition, a pilot study was conducted resulting in further fine tuning of the German questionnaire.

DATA ANALYSIS

Quantitative methodologies. The quantitative methodologies used in this research consist of descriptive and inferential statistics.

Descriptive statistics. The collected data were downloaded from Survey Monkey™ into an Excel spreadsheet, and then analyzed using Minitab 16 and Mplus 6.11 for factor analysis. Descriptive statistics were used to analyze the demographic and organizational data, the three background factors, and the global mindset scale for U.S., German, and dual-citizenship leaders. Minitab 16 was used to conduct frequency counts, to calculate percentages of the categorical variables, and to calculate means, standard deviations, and standard errors for non-categorical demographic and organizational factors, background factors, and for the global mindset scales.

Psychometric properties. The psychometric properties of the data were evaluated for reliability and validity prior to hypothesis testing. Previous research has tested the reliability and construct validity of the cultural intelligence scale and received adequate psychometric properties (Story, 2010; Van Dyne, Ang, & Koh, 2008). Reliability was tested via Cronbach's coefficient alpha (Cronbach, 1951; Cronbach & Shavelson, 2004). Cronbach's alpha measures the correlation among items in a scale to determine if they are interrelated. An alpha measure of 0.7 serves as a minimum for acceptable reliability (Domenic, 1994; Nunnally & Bernstein, 1994). Measures between 0.7 and 0.8 are good and measures between 0.8 and 0.9 are very good (DeVellis, 2003). The scales used in this research have very good reliability because all of the full-scale alphas are higher than 0.90. Specifically, the English global mindset scale had an alpha of .935 (metacognitive CQ $\alpha = .867$, cognitive CQ $\alpha = .892$, motivational CQ $\alpha = .864$, and global business acumen $\alpha = .876$); the German global mindset scale had an alpha of .912 (metacognitive CQ $\alpha = .842$, cognitive CQ $\alpha = .780$, motivational CQ $\alpha = .780$, and global business acumen $\alpha = .853$); and the German and English global mindset scale combined had an alpha of .941 (metacognitive CQ $\alpha = .877$, cognitive CQ $\alpha = .878$, motivational CQ $\alpha = .901$, and global business acumen $\alpha = .892$).

Confirmatory factor analysis (CFA) was applied to test the validity of the global mindset construct and its constitutive constructs metacognitive CQ, cognitive CQ, motivational CQ, and global business acumen (Girden, 2001; Jöreskog & Sörbom, 1993). Three goodness of fit tests were used to evaluate the CFA models (Bentler, 1990, 2007; Loehlin, 1998): chi-square/degrees of freedom ratio (χ^2/df), root mean square error of approximation (RMSEA), and comparative fit index (CFI). Acceptable construct validity occurs when χ^2/df ratio is less than 2 to 1, when CFI is at least .90, and when RMSEA is less than .08 (Hu & Bentler, 1999).

Accordingly, CFA results support the construct validity of global mindset as measured by the four sub-scales metacognitive CQ, cognitive CQ, motivational CQ, and global business acumen. However, sufficient statistical support using CFA was not found for the two sub-scales cultural intelligence (combining the three sub-scales metacognitive CQ, cognitive CQ, and motivational CQ) and global business acumen. These findings are realistic because one can consider each of the four sub-scales as important contributors rather than saying that metacognitive CQ, cognitive CQ, and motivational CQ first create cultural intelligence, and then global mindset is created by cultural intelligence and global business acumen.

CFA tests found that in addition to all factor loadings being significant (at $p < .001$), the English four factor global mindset scale had $\chi^2 = 345.795$, $df = 181$, $p < .001$; RMSEA (90% CI) = .071 (.060 -.083); CFI = .930. The German global mindset scale had these fit criteria: $\chi^2 = 317.771$, $df = 185$, $p < .001$; RMSEA (90% CI) = .108 (.087 - .127); CFI = .796. The combined (English and German) four factor global mindset scale had the following fit statistics: $\chi^2 = 359.278$, $df = 178$, $p < .001$; RMSEA (90% CI) = .065 (.055 - .075); CFI = .942. The values for the German scale did not show good fit values because of its small sample size (55). However, it is important to note that TLI, CFI, RMSEA, and Chi-square over reject true models when N is below 100 which is the case for the German scale (Bentler & Yuan, 1999; Yu, 2002). The tests may therefore be considered acceptable for the German scale although the values are above the cutoff values for larger sample sizes. This model showed very good fit according to CFI and RMSEA for the English and combined scales (Kline, 2011).

RESULTS

Introduction

The survey was administered to German and U.S. business leaders. One thousand one hundred and twelve surveys were sent out; 280 (25.2%) participants responded. Of the 1,112 surveys, 980 English versions were sent to business leaders working in the U.S., and 132 German surveys were sent to business leaders working in Germany. Response rates for the two versions were 208 (21.2%), and 72 (54.6%), respectively.

Of the 72 responding business leaders working in Germany, 68 had German citizenship, two were dual German and U.S. citizens, and two had a different citizenship. The 208 responding business leaders working in the U.S. were more diverse. One hundred and nine leaders had U.S. citizenship, 61 had German citizenship, 16 had both citizenships, 11 had U.S. citizenship and another citizenship, and one participant had U.S. and two other citizenships. Ten leaders working in the U.S. had other citizenships.

Hypotheses Testing Results

Hypothesis testing was carried out using general linear model tests such as ANOVA, linear regression, and structural equation modeling, such as path analysis. Specifically, the differences between German and U.S. leaders and those with dual citizenship were tested using both ANOVA and linear regression. Path analysis was used to assess the mediating effects of the personal, educational, and professional factors on the impact of nationality on global mindset. Product of coefficients and bootstrapping were used to test the statistical significance of the mediation effects. The research gauged the impact of national differences on the development of participants' global mindset, and identified several important factors that were hypothesized to mediate the impacts of nationality on global mindset. The following hypotheses were tested:

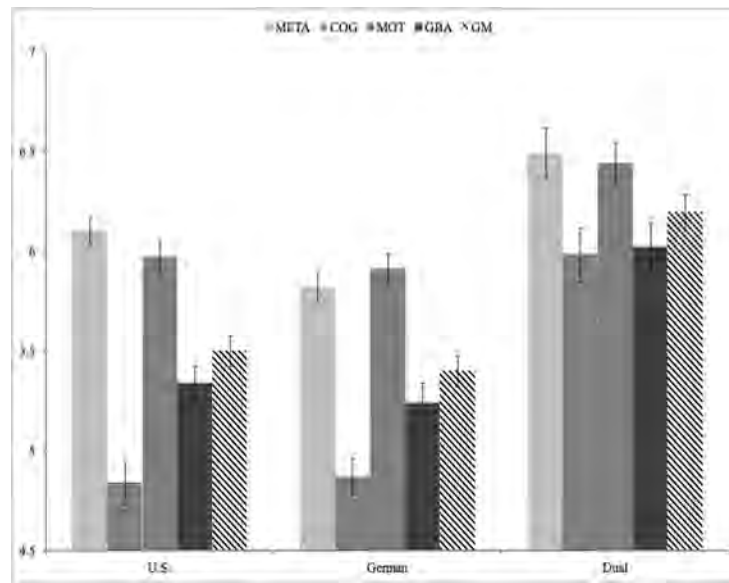
Hypothesis 1 (H1). H1: *The nationality of business leaders has an impact on their global mindset.*

Results of ANOVA revealed that H1 is supported. Specifically, nationality had an impact on the metacognitive CQ ($F(2, 234) = 9.9, p < .001$), the cognitive CQ ($F(2, 232) = 15.57, p < .001$), the motivational CQ ($F(2, 234) = 5.53, p < .001$), the global business acumen ($F(2, 225) = 7.78, p < .001$), and the global mindset ($F(2, 218) = 11.73, p < .001$) scores of leaders.

As shown in Figure 2, the highest scores, which were among those leaders with dual citizenship (global mindset mean of 6.19 out of a maximum of 7.0), did not overlap even including their standard error of the means with scores from German (global mindset mean 5.4) or U.S. (global mindset mean 5.5) citizens. The dual citizens also had the highest scores in each sub-factor, metacognitive CQ (U.S. 6.10, German 5.82, and dual citizens 6.49), cognitive CQ (U.S. 4.84, German 4.87, and dual citizens 5.98), motivational CQ (U.S. 5.97, German 5.91, and dual citizens 6.44), and global business acumen (U.S. 5.34, German 5.24, and dual citizens 6.02). The differences among the nationalities are all significant at the 99% confidence level.

Further analysis of the differences between the German and U.S. citizens and those with single and dual citizenship brought more insights. Regression analysis of global mindset and its sub-factors on just the German and U.S. citizens found no statistically significant differences in global mindset between German and U.S. citizens $t(\beta = .098, p = .379)$ and its sub-factors cognitive CQ ($\beta = -.035, p = .803$), motivational CQ ($\beta = .064, p = .560$), and global business acumen ($\beta = .107, p = .421$). There were statistically significant differences in metacognitive CQ ($\beta = .279, p = .009$).

Figure 2: Histogram of Differences in Global Mindset and Its Sub-Factors among Nationalities



Notes: META = metacognitive CQ, COG = cognitive CQ, MOT = motivational CQ, GBA = global business acumen, GM = global mindset

Regression analysis of global mindset and its sub-factors on single and dual citizens showed statistically significant differences in global mindset between participants with one and two or more citizenships ($\beta = .746$, $p < .001$). Statistically significant differences indicated within the sub-factors of global mindset metacognitive CQ ($\beta = .542$, $p = .001$), cognitive CQ ($\beta = 1.128$, $p < .001$), motivational CQ ($\beta = .507$, $p = .001$), and global business acumen ($\beta = .731$, $p < .001$). Taken together, these results suggest that global mindset is affected by nationality when leaders are dual citizens versus single citizens.

Hypothesis 2 (H2). *The impact of nationality on global mindset is mediated by business leaders' personal, educational, and professional background factors.*

H2 was tested using path analysis with the statistics program Mplus 6.11. The personal background factor consisted of having a foreign family member and immersing oneself in the foreign culture while traveling abroad for pleasure. The educational factor consisted of self-studying about foreign countries. International education was not statistically significant in mediation and therefore excluded. The professional factor consisted of the amount of experience with international working assignments and working domestically with foreigners. Causal step strategy, product of coefficients, and bootstrapping were used to test the statistical significance of the mediation effects. Full mediation was demonstrated following Baron and Kenny's (1986) causal step strategy. First, the independent variable nationality affected the mediators, the background factors. Second, the independent variable nationality affected the dependent variable global mindset. Third, the mediators (background factors) affected the dependent variable global mindset. When all mediators were controlled, as shown in Table 1, nationality no longer had a statistically significant impact on global mindset. ($p = .904$), suggesting full mediation.

The product of coefficients test calculates a Z score by calculating the ratio of the indirect effects to the standard error of the indirect effects to test the statistical significance of indirect (mediation) effects. The total indirect effect ($\beta = .201$) of nationality on global mindset is statistically significant ($Z = 4.100$, $p < .001$) using the product of coefficients test. The specific indirect effects (Table 1) are through personal background factors ($\beta_{a1b1} = .076$, $Z = 3.140$, $p = .002$) as shown in Figure 3 path a1b1, through an educational background factor ($\beta_{a2b2} = .047$, $Z = 2.201$, $p = .028$) as shown in Figure 3 path a2b2, and through professional background

factors ($\beta a_3 b_3 = .078$, $Z = 2.979$, $p = .003$) as shown in Figure 3 path $a_3 b_3$. However, the product of coefficients test assumes normal sampling distribution of the indirect effects.

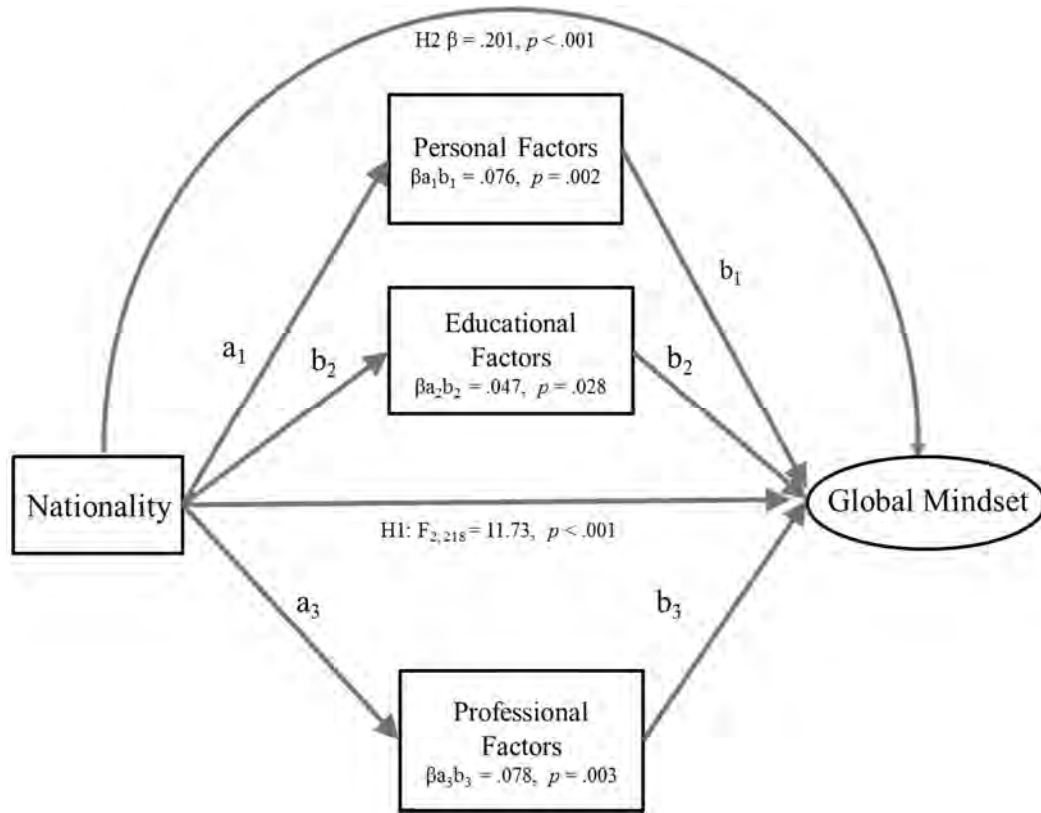
Table 1: Mediation of the Effect of Nationality on Global Mindset through Personal, Educational, and Professional Background Factors

Background factors	β	<u>Product of Coefficients</u>			<u>Bootstrapping</u>	
		SE	Z	p	<u>Percentile 95% CI</u>	
					Lower	Upper
Direct effects						
Personal	.313	.059	5.331	.000***	.198	.465
Educational	.158	.036	4.405	.000***	.088	.251
Professional	.320	.061	5.268	.000***	.201	.476
Nationality	.007	.058	.121	.904	-.106	.156
Indirect effects						
Personal	.076	.024	3.140	.002**	.029	.123
Educational	.047	.021	2.201	.028*	.005	.089
Professional	.078	.026	2.979	.003**	.027	.129
Sum	.201	.049	4.100	.000**	.105	.296

* significant $p < .05$, **significant $p < .01$, ***significant $p < .001$; 5,000 bootstrapping samples; CI = confidence interval

Bootstrapping is a nonparametric re-sampling technique that does not assume that the sample adheres to a normal distribution (Preacher & Hayes, 2008). The re-sampling procedure was executed 5000 times. As shown in Table 1, the 95 percentile confidence intervals of the sum and the specific indirect effects of the background factors using bootstrapping did not include zero, sum (.105 - .296), personal background (.029 - .123), educational background (.005 - .089), and professional background (.027 - .129). Thus, the background factors were all statistically significant mediators of the effects of nationality on global mindset.

Figure 3: Multiple Mediation Model of the Effect of Nationality on Global Mindset Mediated by Personal, Educational, and Professional Background Factors



SUMMARY

The sample consisted of 243 participants. One hundred and twenty were German, 100 U.S. citizens, and 23 dual citizens. One hundred and ninety-eight participants had a U.S. business address and 70 a German business address. More than 72% of the participants were directors or higher in the company hierarchy. The instrument used in this study was an online survey administered in English to leaders with a U.S. business address in German to leaders with a German business address. This procedure avoided the bias that participants in Germany had to be able to read and understand English. The psychometric properties of the survey instrument were determined before testing the hypotheses.

Cronbach's coefficient alpha tests with significant factor loadings higher than 0.90 confirmed high reliability of the global mindset construct. Confirmatory factor analysis and several goodness of fit tests, including root mean square test of approximation and chi-square, were applied to ensure construct validity and revealed very good fit of the scale.

Results of ANOVA tests revealed that dual citizens have the highest global mindset score - higher than U.S. and German citizens. General linear modeling and path analysis disclosed that the back ground factors having a foreign family member, immersing in the foreign culture while traveling abroad for pleasure, interest in foreign countries, experience working abroad, and working with foreigners domestically mediate the

relationship between nationality and global mindset. The mediation of international education was not statistically significant.

DISCUSSION

This study tested the role of national and dual-citizenship on global mindset development – while also exploring personal factors and experiences as possible mediators of this relationship. Results showed that dual citizenships tend to have higher global mindset than individuals with single nation citizenship. Also there was no difference in global mindset between Germans and U.S. citizens. This is consistent that previous research on global mindset did not distinguish among nationalities (Javidan et al., 2011; Levy, 2000; Story, 2010). However, there might be differences among other nationalities than U.S. and German. Some nations tend to be more global in perspective and influences (example: Belgium) so perhaps some differences in levels will reveal certain nations to be more globally minded than others. This study may lead to future work examining the role of dual citizenships on global mindset development. Further research could lead to new insights in the development of global leaders, but the present study confirms that it leads to greater global mindset.

This study also tested the role of background factors and experiences on the global mindset of leaders to test for mediating effects. The statistical significance of the indirect effects of nationality on global mindset through the background factors was tested with causal step strategy, product of coefficients, and bootstrapping tests. The causal steps strategy demonstrated full mediation through the background factors. The product of coefficients tests which require a normal distribution of the mediators showed that the total and specific indirect effects were statistically significant. Bootstrapping, which does not assume a normal distribution of the indirect effects, also revealed that the total and specific indirect effects of the personal, educational, and professional background factors on global mindset were statistically significant.

The personal background factors represented by having a foreign family member and immersing oneself in the foreign culture while traveling abroad for pleasure were statistically significant. The educational factors were only represented by self-studying about foreign countries. International education was not statistically significant as a mediator and therefore excluded. The professional factors consisted of the amount of experience with international working assignments and working domestically with foreigners.

The indirect effects support the findings of the most important background factors. The difference between the nationalities is mediated by the most important background factors except international education, which was not statistically significant. The implication of the full analysis (direct and indirect effects) is that nationality “loses” its significant direct impact on global mindset in the mediation model. Nationality impacts global mindset indirectly through the mediators; the mediators are the mechanisms through which nationality affects global mindset.

There is no known empirical work in the global mindset literature comparing citizens with single or dual citizenships. Thus, this study is among the first to examine this context of global mindset. The results are noteworthy because dual citizens have significantly higher global mindset than single-nation citizens, which was found across every sub-factor of the global mindset subscales. Even single citizenship leaders with extended experience working abroad scored lower in global mindset than those with dual citizenships.

There is considerable evidence that leadership is culturally endorsed (Brodbeck et al., 2000; Kuchinke, 1999). Some cross-national studies suggest that there are differences in leadership among nationalities (House et al., 2004; Ojeda, Ree, & Carretta, 2010). Arora et al. (2004) who tested differences in global mindset between U.S. and Non-U.S. managers from textile and apparel companies located in the southeast of the U.S. and did not find statistically significant differences. The findings of this study are an extension of the previous findings.

Because the research on global mindset is in its infancy, future research directions are manifold. First, there is no consistent definition of global mindset and its principle components. Research on global mindset is therefore not always comparable as researchers use different global mindset definitions, scales, and measures. It

would be helpful to develop a core definition and measurement scale for global mindset to advance understanding and analysis of this critical leadership concept. This research used parts of an existing scale (three sub-scales of the cultural intelligence scale) and added global business acumen to measure global mindset. The resulting global mindset scale has excellent coefficient alpha values and very good goodness of fit test results. This is similar to Story et al. (2014), which used the same cultural intelligence sub-scales plus Nummela et al. (2004) global business orientation scale.

Second, this research studied differences between citizens from two western countries, the U.S. and Germany. Comparisons among leaders from Asia, Central and South America, Africa, or the Middle-East with European and/or U.S. leaders would represent a valuable extension of this research. It would help understanding the impacts of nationality on the development of global mindset in more regions of the world; especially comparing regions or countries that do not share their cultural roots keeping in mind that many of the early settlers in the U.S. came from Europe, in particular from Germany.

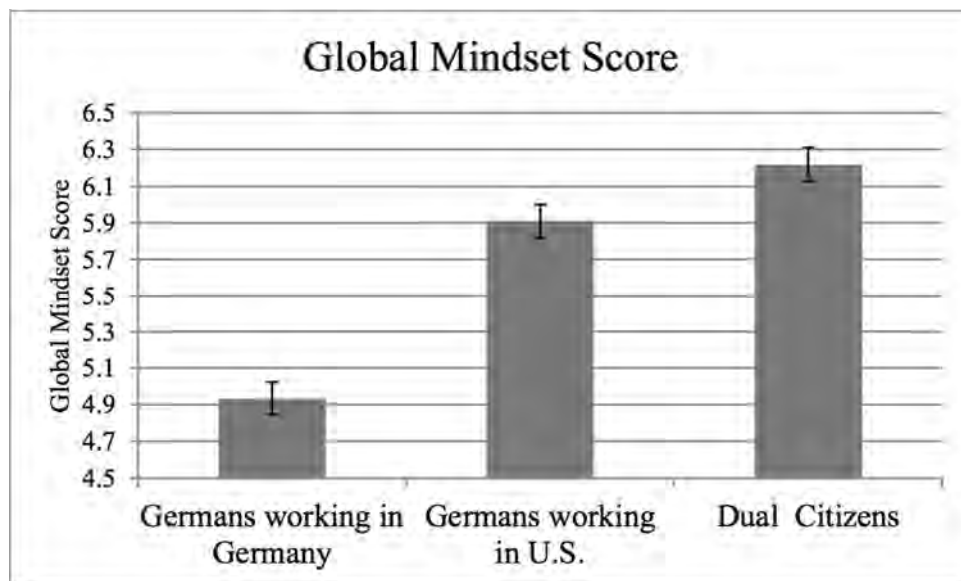
Third, one key finding of this research is that dual citizens leaders have higher global mindset than single citizen leaders. A focus in future research on the characteristics of leaders with single and dual citizenships could yield valuable insights into the antecedents of global mindset. While this study reveals that it is true, it does not inform the readers why it is true – and this latter question is salient to the development of global mindset and cultural intelligence.

IMPLICATIONS AND RECOMMENDATIONS FOR PRACTITIONERS

The results of this research have important implications for organizations that need to develop future leaders who can meet the challenges of the global economy. The results also have important implications for individuals who want to develop their global leadership skills to enhance their career opportunities and prospects for advancement in global organizations.

Recommendations for organizations. A critical finding of this study is that leaders with dual citizenships had the highest global mindsets (Figure 2). These results can be further differentiated, as shown in Figure 4.

Figure 4: Developmental Steps of Global Mindset



Dual citizens have the highest global mindset followed by leaders working abroad (in this research Germans working in the U.S.). Leaders working in their home country (here Germans working in Germany) have significantly lower global mindset scores. Thus, organizations that need to identify future global leaders should look first to employees with dual citizenships as they are more likely to be able to deal effectively with the issues confronting leaders in global organizations. If employers cannot find adequate leaders with dual citizenships, it is advisable to look for leaders with experience working abroad. Experience with international business trips is certainly helpful, but the experience is most valuable if it is for at least three months. The longer the international working experiences the better in terms of developing global mindset.

As this research demonstrates, dual citizens have higher global mindsets than single citizens and are therefore the preferred choice for filling global positions, especially when cultural intelligence is a necessity for the work agenda. When dual citizens are not available, candidates for global positions should have experience on international assignments.

Recommendations for individuals. Individuals may increase their global mindset and cultural intelligence by embracing several opportunities. These include learning foreign languages and participating in foreign exchange programs. In college, students may study abroad and obtain foreign internships. However, the time living abroad needs to be adequate, so longer extended stays are preferential to cultural intelligence development. Studying abroad for two years or more helps to learn a foreign language and gain knowledge about the foreign country and its culture. Obtaining a foreign degree would be ideal. In sum, global mindset is not an inherited gene. It is acquired by taking advantage of the manifold leisure, academic, and business opportunities to develop a global mindset.

CONCLUSIONS

This study is the first known empirical investigation comparing the development of global mindset between two nationalities. Moreover, it is the first known study in global leadership comparing nationals with single and dual citizenships. Globalization is ubiquitous in the 21st century. The question is not if leaders can deal with globalization but how they deal with it (McCall & Hollenbeck, 2002). Global mindset is one of the key concepts for describing the necessary skills and abilities leaders should have to successfully deal with globalization (Cascio & Aguinis, 2008). There is a need for leaders capable of dealing with globalization. This research contributes to understanding how personal, educational, and professional factors affect the development of global mindset. The results of this research help companies to develop global mindset in leaders, and they help individuals increase their global mindsets. The results indicate that global mindset is developed through experiences and opportunities and that personal, educational, and professional factors in the leader's background are the mediators through which global mindset is best realized.

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