CREATIVE WE STAND: EXPLORING THE LINKS BETWEEN AMERICAN NATIONAL IDENTITY, MULTICULTURAL EXPOSURE AND CREATIVITY

by

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Those who visit foreign nations but associate only with their own country-men change their climate but not their customs. They see new meridians but the same men; and with heads as empty as their pockets return home with traveled bodies but untravelled minds.

- Caleb Colton

DEDICATION

This dissertation is dedicated to my sister, who, with the simple act of being born, changed my life forever. With her birth, my will to fight was born as well. Having her in my world has given me a reason to stand up for the right to shape it. To prove to her, if not to myself, that stifled beginnings do not determine predictable or un-triumphant endings, and that being held back only adds to the adrenaline of breaking free.

This dissertation is also dedicated to the educators at Sacramento City College; the University of California, Berkeley; and the University of Michigan, as well as the Sacramento Public Library, without which, I would have been lost long ago.

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ABSTRACT

Previous research has established a positive relationship between multicultural exposure and creativity (e.g., Leung & Chiu, 2010; Maddux, Adam, & Galinsky, 2010). However, little research has explored how identification with one's home nation may influence this relationship. Across three studies, I demonstrate that differences in national identity can both facilitate and inhibit creative performance.

Study one surveyed participants across two creativity tasks and a self-report measure of national glorification and national attachment. National glorification is characterized as a tendency to view one's home nation as superior to other nations; in contrast, national attachment is simply a love of country (Roccas, Klar, & Liviatan, 2006). Study two implemented a longitudinal design to survey participants' level of glorification and creativity both before and after they completed cultural immersion projects abroad. Study three replicates and extends Study 2 by examining both glorification and attachment among students who participated in a variety of study abroad programs. Results across the studies showed that glorification negatively predicted creativity, while attachment positively predicted creativity, controlling for individual differences. Moreover, glorification negatively predicted change in creativity after multicultural exposure, while attachment positively predicted change in creativity following multicultural exposure, controlling for differences in cultural immersion/study abroad programs and personal need for structure.

These studies have important theoretical and practical implications. Firstly, these findings show that individual differences in national identity play a critical role in the relationship between multiculturalism and creativity. Second, these studies fill an important gap in the existing literature by using longitudinal field studies, thus providing both pre and post travel measures of creativity. Third, the practical implications of this line of research speak directly to the psychological costs and benefits of international travel within business and educational contexts. The current findings clearly show that not everyone is equally poised to reap the benefits of multicultural experiences. Further, the findings suggest that training directed to individual differences of national identity may help facilitate positive psychological outcomes following exposure to other cultures.

CHAPTER 1

THEORETICAL BACKGROUND

Overview

The world we live in was built by human creativity. Yet in many ways, the creative process remains a mystery. Modern psychological research is only beginning to understand what makes people creative, and what can be done to enhance creativity. Recent research attempting to understand creative enhancement has focused on multicultural exposure as an important intervention that can boost creativity (e.g., Leung & Chiu, 2010; Leung, Maddux, Galinsky, & Chiu, 2008; Maddux, Adam, & Galinsky, 2010). However, this research has largely focused on exposure to foreign cultural contexts. Research has not focused on how identification with one's home country may be related to creativity, or how differences in national identification may be a factor in the link between creativity and multicultural experiences. This dissertation aims to connect the existing research on creativity and multicultural exposure with the literature on national identity. In this chapter, I will review the literature and theoretical frameworks used in psychological research on creativity, culture and creativity, and national identity, respectively.

Creativity

Creativity has been hailed "among the most important—yet least understood—psychological constructs" (Makel & Plucker, 2008, p. 247). Creativity is central to problem-solving, negotiation, critical thinking, communication, marketing, progress and innovation; the inherent value of creativity is universal—across cultures, groups and organizations (Goclowska & Crisp, 2013). Yet in spite of this, research on creativity enhancement is still in its infancy. This is, in least in part, due to the complex and disjointed history of creativity research.

The science of creativity, like so many sciences, has an ancient history steeped in mystical and religious origins. In early Western civilization, creativity was believed to come from divine intervention and all original ideas were said to be a gift from the gods (Peterson & Seligman, 2004; Niu & Sternberg, 2006; Sawyer, 2012). Although the meaning and understanding of creativity has evolved over time, traces of the mystical power of creativity remains in modern society. Creativity is still often seen as a "gift" or a "talent"—an unusual phenomenon that cannot be explained or taught. These beliefs about the innateness of creativity have led to a dearth of research on and understanding of the enhancement of creativity (Plucker, Beghetto, & Dow, 2004; Sternberg & Lubart, 1999). Current creativity research is only starting to combat these biases.

The catalyst for modern psychological research on creativity is generally attributed to Guilford's presidential address at the national APA conference in 1950. During a time when psychology was primarily focused on behavioral observations, he emphasized the importance of research on creativity, citing that less that 0.2% of published psychological research concerned itself with creativity and called upon

scientists to bring new focus and commitment to this underexplored area (Guilford, 1950; Kaufman & Sternberg, 2006; Makel & Plucker, 2008).

Since then, the research on creativity has increased dramatically, but the assumptions of the innateness of creativity continued. Early creativity research largely focused on understanding why famous, eminent creators were successful at being creative and largely ignored both everyday creativity and how the average person can become more creative (Plucker & Beghetto, 2003; Sawyer, 2012; Sternberg & Lubart, 1999). Even more resent research on every day, or "little c", creativity often still assumed that creativity is a quality, talent, or personality trait that certain people possessed rather than a skill that can be cultivated (Amabile & Pillemer, 2012).

However, current researchers believe that understanding how to enhance creativity is not only possible, but long overdue (e.g.,Ivcevic, 2009; Makel, 2009; Makel & Plucker, 2008; Ward, Smith, & Finke, 1999). One step towards understanding how to enhance creativity is to understand how environmental factors and sociocultural contexts can help foster creativity (e.g., Amabile & Gryskiewicz, 1989; Amabile & Pillemer, 2012; Plucker, 1994). Recent empirical evidence has shown that exposure to certain situations and environments can help develop a "creative mindset", or cognitive orientation that helps cultivate creativity and flexibility (Friedman & Förster, 2001; Goclowska & Crisp, 2013; Maddux et al., 2010; Zhou, 2003). In fact, some theorists have argued that it may be the lack of understanding of contextual and environmental factors that is prohibiting the advancement of fostering creativity and creativity interventions (Makel & Plucker, 2008).

At the same time, it is also important to note that it is unlikely that the same environmental factors will be the best creative context for all individuals (Makel & Plucker, 2008; Sternberg, 1999). Thus, in order to understand how to enhance creativity, we need to understand the interplay between environmental factors such as culture, and individual differences, such as orientation towards national identity.

Creativity and Exposure to Foreign Cultures

Recent research has established a positive link between multicultural exposure and creativity. For example, across five studies, Maddux and Galinsky (2009) found that participants' depth of experience living abroad predicted individual creativity across two creativity tasks. Another series of studies have shown that being primed to think about a learning experience in a foreign culture boosted creativity on multiple measures of creativity—but only among those who have had previous cultural experiences abroad (Maddux et al., 2010). Similarly, research in linguistics has demonstrated that bilingual Russian-English speakers outperformed monolingual English speakers on divergent thinking tasks (Kharkhurin, 2005). Even simply being primed with a multicultural mind-frame can induce creativity. Cheng and colleagues demonstrated that showing participants picture slides of two cultures simultaneously (Chinese and American) produced more creativity than showing slides of only one culture (Chinese or American) (Cheng, Leung, & Wu, 2011).

Researchers have established two main theoretical reasons for why multiculturalism enhances creativity. Firstly, the *creative cognition approach* argues that creativity requires access to diverse knowledge systems. Since cultures are distinct

knowledge systems, experience in multiple cultures provides access to multiple ways of doing things, which in turn gives individuals more resources for creativity (Cheng et al., 2011; Cheng, Sanchez-Burks, & Lee, 2008; Ward et al., 1999). This theory argues that creativity is largely based on the ability to draw on existing ideas and recombine preexisting elements. In this way, information about different cultures provides insight for how to connect disparate elements and allows for unique recombinations of ideas (Cheng et al., 2008; Chiu & Hong, 2005).

Secondly, exposure to multiple cultures may aid creativity because it breaks down individuals' preexisting stereotypes and assumptions. Being a foreigner in a new culture inherently requires one to confront values and beliefs that challenge the cultural norms and assumptions of one or both cultures; thus individuals are faced with a process of inconsistency resolution. This in turn requires people to constantly confront stereotypes, reconstruct their prototypes and reframe their expectations. Over time, this constant readjusting trains multiculturals to ignore the more obvious or prototypical responses to situations, and become better able to think outside of the box and generate novel and divergent ideas (Cheng et al., 2011; Crisp & Turner, 2011; Maddux, Leung, Chiu, & Galinsky, 2009). Indeed, research has shown that multicultural experience leads to richer conceptual structures and increased cognitive complexity (Chiu & Hong, 2005; Hong, Morris, Chiu, & Benet-Martinez, 2000; Leung & Chiu, 2008; Tadmor & Tetlock, 2006).

Similarly, research on biculturals and identity integration has shown that biculturals, or individuals who identify with more than one cultural identity, use "cultural frame switching" to move back and forth between cultural norms—a complex cognitive

ability that increases people's mental flexibility and enhances creative thinking (Benet-Martinez, Lee, & Leu, 2006; Cheng et al., 2008).

Key Factors and Individual Differences.

However, not everyone who goes abroad becomes more creative. The literature has established several important contextual factors and individual differences that can determine whether exposure to foreign cultures leads to higher creativity. Importantly, research has shown that *cultural adaption* is the key to gaining the cognitive and creative benefits of multiculturalism (Crisp & Turner, 2011; Leung & Chiu, 2010; Leung et al., 2008; Maddux et al., 2010; Nguyen & Benet- Martınez, 2010; Tadmor & Tetlock, 2006; Yamada & Singelis, 1999). Adaption, also called acculturation or integration, is defined as altering beliefs, norms, attitudes, and/or behaviors to coincide with the standards the foreign culture (Berry, 1990; Maddux et al., 2010). This makes intuitive sense: individuals who do not engage in the new culture are not able to use the tools provided by multiculturalism (i.e. more resources for idea recombination, challenging stereotypes, increased openness to non-prototypical ideas).

In line with this, research has shown that brief, less intensive cultural experiences do not lead to creativity, since short superficial visits do not require cultural adaptation or allow for developing cultural competence (Dwyer, 2004; Maddux et al., 2010). For example, in Maddux and Galinsky's research (2009), the positive relationship between multicultural exposure and creativity was only found among those who lived abroad—not those who were merely vacationing. Moreover, this link was mediated by the extent to which individuals immersed themselves into their host the culture. Similarly, other

studies have shown that length of stay in a foreign country is a significant predictor of creative performance (Cheng, Clerkin, Dries & Lee, 2013; Leung & Chiu, 2008).

In addition to these situational contexts, individual differences may also predict degree of cultural adaption. Immersion into a foreign culture is a challenging and stressful experience, and may seem overwhelming or unappealing to certain people. In fact, some research has shown that multiculturalism can lead to more rigidity and close-mindedness among people who reject the host culture (Leung & Chiu, 2008; Maddux et al., 2010). For example, individual who are high on openness to experience are more likely to accept intercultural ideas and are more likely to become more creative after extended exposure to foreign cultures; while individuals low on openness tend to stick closely their conventions and ideas when abroad and do not become more creative (Chao, Chen, Roisman, & Hong, 2007; Leung & Chiu, 2008).

Similarly, people who have high motivation for simple structures and need for closure are more likely to use their own cultural norms to guide their decision making rather than incorporating ideas from other cultures (Crisp & Turner, 2011). People who are high on such constructs tend to perceive their social environment in simplified schemata, prefer predictability, and dislike ambiguity (Kruglanski, Webster, & Klem, 1993; Neuberg & Newsom, 1993; Thompson, Naccarato, Parker, & Moskowitz, 2001). Research shows that need for structure and closure is related to lower divergent thinking skills, and higher use of prototypical or stereotypical examples and solutions (Chiu, Morris, Hong, & Menon, 2000; Crisp & Turner, 2011).

A Gap in the Literature

However, one factor that is largely absent from the research on creativity and multicultural exposure is adequate exploration of individual differences in national identity. There is considerable reason to believe that attachment to one's home nation will have an important influence on how people adapt to the foreign culture as well as whether people adapt a creative mind-frame in general. Research on bicultural identity integration has shown that individuals who are able to integrate and combine multiple identities are more creative than biculturals who keep their identities separate (Cheng et al., 2008). Therefore, it seems likely that individuals who not only accept and adapt to foreign cultures while abroad but also adjust and integrate their notions of their home culture and country are more likely to reap the creative benefits of multiculturalism. Notably, one study has shown that individuals primed with both their home and a foreign culture performed more creatively compared to individuals primed with two foreign cultures, suggesting that the creative benefits of multiculturalism specifically requires individuals to confront and integrate their home culture while abroad (Cheng et al., 2011).

There is some evidence that being abroad changes one's feelings and opinions about one's home country. For instance, Leung and Chiu (2010) found that American participants who have extensive multicultural experiences rated foreign cultural sayings more positively and American cultural sayings less positively, compared to Americans who did not have multicultural experiences. Additionally, research has shown that one's national identity becomes more salient when abroad (Dolby, 2004; Savicki & Cooley, 2011). This is especially true among Americans, because the United States is relatively isolated compared to many other countries (Dolby, 2007). These findings suggest that

national identity is an important identity while abroad. I believe that individual differences in national identity can shape the relationship between multiculturalism and creativity.

National Identity

National identity is a common social identity that people use to align themselves with an ingroup. Identifying with one's nation lends individuals a sense of pride and feelings of belongingness, and is seen as a desirable, positive, and normative attribute (Billig, 1995; Li & Brewer, 2004; Staub, 1997). However, like all social identities, there are individual differences in how people identify with their nation (Huddy & Khatib, 2007). Take for example the slogans "Change we can believe in" and "These colors don't run." Both are popular contemporary ways that Americans express their support of America; however, they clearly demonstrate quite different sentiments. The literature in political psychology and political science has established a number of different terms to describe these individual differences in national identity.

One of the earliest distinctions in national identity was established by Adorno and colleagues who differentiated between *genuine patriotism*—love of country and understanding of core national values, and *pseudo-patriotism*—blind and uncritical conformity to national values and denunciation of other nations (Adorno, Frankel-Brunswik, Levinson, & Sanford, 1950). Several decades later, Kosterman and Feshbach (1989) argued for a similar division—*nationalism* vs. *patriotism*. Patriotism is characterized as a love for, commitment to, and pride in one's home nation that does not include comparison to other countries; while nationalism is characterized by the belief

that one's home country is superior compared to other countries (Blank & Schmidt, 2003; Feshbach, 1994; Kemmelmeier & Winter, 2008; Kosterman & Feshbach, 1989; Viroli, 1995).

A decade later, Staub further argued that patriotism can be divided into three categories—*conventional patriotism*, *blind patriotism* and *constructive patriotism* (Staub, 1997). Conventional patriotism simply describes a love of country. Blind patriotism, however, describes unwavering and inflexible allegiance to one's home country and unquestioning acceptance of their nation's policies and actions regardless of consequences or ethical concerns (Sapountzis, 2008; Schatz, Staub, & Lavine, 1999; Staub, 1997). In contrast, constructive patriotism describes critical loyalty and attachment to one's country coupled with a willingness to contradict or take action to change national policies (Schatz et al., 1999; Staub, 1997).

Research on these definitions of national identity has not been completely consistent and there is overlap between the theoretical and operational differences of these assessments. Some researchers use the terms "conventional patriotism" and "constructive patriotism" interchangeably, or simply refer to both as "patriotism" (e.g., Ariely, 2012), while others argue that, while correlated, conventional patriotism is distinct from constructive patriotism (e.g., Schatz et al., 1999). Some research has reviewed findings on "blind patriotism" and "nationalism" as one construct (e.g., Kemmelmeier & Winter, 2008), while others claim that although nationalism is related to blind patriotism, nationalism and blind patriotism are separate constructs (Mummendey, Klink, & Brown, 2001; Sapountzis, 2008).

There is also a notable amount of variance in how these constructs are operationalized. For example, multiple researchers have measured "constructive patriotism" by using items focusing on the amount of pride the individual feels towards their country (e.g., Ariely 2012; Davidov, 2009; Raijman et al., 2008); while others have used measures which evaluate participants' willingness to change, correct, and improve their nation (e.g., Rothi, Lyons, & Chryssochoou, 2005; Sapountzis, 2008; Schatz et al., 1999).

Glorification and Attachment

Recently, Roccas and colleagues have made an attempt to unite this disjointed literature by arguing that the previous research on nationalism and patriotism can be clustered into two modes of national identity[1] (Roccas, Klar, & Liviatan, 2006). The authors argue that "nationalism" (Kosterman & Feshbach, 1989), "blind patriotism" (Staub, 1997), and "pseudo-patriotism" (Adorno et al., 1950), all can both be thought of as forms of "national glorification". A person who *glorifies* their country focuses on their country's strengths and ignores its failings, and is invested in validating their mindset of national superiority.

In contrast, "patriotism" (Kosterman & Feshbach, 1989), "genuine patriotism" (Adorno et al., 1950) and "conventional patriotism" (Staub, 1997) can all be categorized as "national attachment." People who are *attached* to their country feel affinity towards

[1] For the sake of consistency and clarity, I will be using the terms established by Roccas and colleagues throughout the rest of this paper. However it should be noted that these terms are not necessarily the ones used in the previous literature cited.

their nation state. However, this alliance and identification with one's home nation are not tied to feelings of superiority in comparison to other groups. This terminology supports previous conceptions of patriotism is a positive affective attachment toward one's home country (Kosterman & Feshbach, 1989; Sapountzis, 2008).

In the same article, the authors argue that glorification and attachment modes of national identity should be theoretically positively correlated because both modes ultimately describe an affinity with, and alliance to, one's home country. Empirical evidence supports this, as a number of studies have found various operationalizations of the two modes to be correlated (Huddy & Khatib, 2007; Kemmelmeier & Winter, 2008; Kosterman & Feshbach, 1989; Roccas et al., 2006; Williams et al., 2008). Moreover, these modes of national identity are both positively related to a number of other constructs, including commitment to country, conservative political ideology, need for cognitive closure, and right wing authoritarianism (Carter, Ferguson, & Hassin, 2011; Federico, Golec, & Dial, 2005; Huddy & Khatib, 2007; Kemmelmeier & Winter, 2008; Schatz et al., 1999).

However, these two modes are not identical and empirical evidence that has found that the two modes differentially predict a number of outcomes. For instance, glorifying one's nation is positively related to social dominance orientation, prejudice, belief in a just world, ethnocentrism, and concern with military threat and cultural contamination while attachment is unrelated to these variables (e.g., Brewer, 1999; Kemmelmeier & Winter, 2008; Kosterman & Feshbach, 1989; Sapountzis, 2008; Sidanius et al., 1997; Spry & Hornsey, 2007). Additionally, , Roccas et al. (2006) demonstrated that glorification positively predicts moral outage toward outgroup perpetrators and

negatively predicts moral outrage toward in-group perpetrators while attachment negatively predicts moral outrage towards outgroup members and positively predicts moral outrage toward ingroup members.

According to Social Identity Theory, these differences can be explained by inherent differences in the intergroup focus of these two national identities (Mummendey, Klink, & Brown, 2001; Tajfel & Turner, 1986). Glorification is characterized by feelings of national superiority. In order to be superior, all other groups must be inferior. Therefore, national glorification depends on out-group derogation. In contrast, national attachment can be thought of as a positive in-group evaluation which is not inherently tied to the status of national out-groups (Blank & Schmidt, 2003; Mummendey, et al., 2001). Recent research supports this argument. Notably, a study by Wagner and colleagues established a causal relationship, demonstrating that endorsement of national glorification leads to increased out-group devaluation (Wagner, Becker, Christ, Pettigrew, & Schmidt, 2010).

Teasing apart Attachment and Glorification

As mentioned above, glorification and attachment are positively correlated, yet have differential effects on a number of outcomes. Previous research has shown that in order to find these differential effects, it is important to control for mutual variance between the two modes of identification. This may be especially important when examining the effects of attachment. In their research on national identification and group-based guilt in Israel, Roccas and colleagues (2006) found that attachment positively predicted group-based guilt and negatively predicted making excuses, or

"exonerating cognitions" for their nation—*only* when glorification was controlled. The authors conclude that if not controlled for, glorification may suppress the true relationship between attachment and psychological outcomes. Consistently, previous research that has not controlled for variance in glorification has often found inconsistent or non-significant results for attachment (Roccas et al., 2006; Williams et al., 2008). Roccas et al., (2006) posit that controlling for glorification while examining attachment is similar to Staub's (1997) notion of constructive patriotism—a love of country without a blind alliance (Roccas et al., 2006).

National Identity, Multicultural Exposure and Creativity

Given the research reviewed above, it is not hard to imagine how differences in national identification are likely to color how people react when exposed to foreign cultures and countries. In particular, glorification modes of national identity have been consistently shown to predict out-group devaluation, ethnocentrism, xenophobia, and competition and dominance towards foreign countries and foreigners (Blank & Schmidt, 2003; Coenders & Scheepers, 2003; De Figueiredo & Elkins, 2003; Herrmann, Isernia, & Segatti, 2009; Li & Brewer, 2004; Peña & Sidanius, 2002; Raijman et al., 2008). People who glorify their nation are concerned with protecting their home country from cultural contamination of other cultures and believe that cultural influences from foreign countries are threatening to the homogeneity and cohesiveness of their home culture; therefore, they tend to have negative views of multiculturalism and immigration (Rothi, et al., 2005; Schatz et al., 1999; Spry & Hornsey, 2007).

These findings, coupled with the fact that national glorification inherently assumes that one's home nation is superior to all other nations, suggests that individuals who are high on glorification are unlikely to identify with, integrate and adapt to foreign cultures while abroad—if they even go abroad at all. Research on multiculturalism and creativity (reviewed in the previous section) has shown that adaption and identity integration are the precise mental processes required in order to gain the cognitive benefits of being abroad—including creativity (Benet-Martinez et al., 2006; Maddux et al., 2010). Therefore, I hypothesize that there will be a negative relationship between glorification and increased creativity following exposure to foreign cultures.

The theoretical link between national attachment, multiculturalism and creativity is less obvious. However, there is some evidence to suggest that attachment will be influential here as well. Research has shown that attachment is unrelated to out-group devaluation; moreover, attachment negatively predicts moral outrage towards other nations and positively predicts moral outrage toward one's own nation (Ariely, 2012; Blank & Schmidt, 2003; Herrmann et al., 2009; Li & Brewer, 2004; Raijman et al., 2008; Roccas et al., 2006). Because of this, people high on attachment may be more likely to adapt to new cultural standards while abroad, and may be more tolerant of contexts in which their cultural prototypes and assumptions are challenged. This is consistent with Kosterman and Feshbach's (1989) conclusion that attachment modes of national identity may support international relationships because it does not promote intergroup aggression or hostility.

In addition, research has shown that constructive patriotism is related to tolerance, empathy and support of multiculturalism (Hornsey, 2006; Janis, 1982; Spry & Hornsey,

2007). According to culture and creativity research, all of these aspects should allow for a "creative mindset" and facilitate becoming more creative while abroad (Crisp (Crisp & Turner, 2011; Maddux et al., 2010). Following the logic that attachment controlling for glorification is similar to constructive patriotism, this also supports a positive association between attachment and creativity. Therefore, I predict that there will be a positive relationship between attachment and increased creativity following exposure to foreign cultures. In order to ensure that this relationship is not suppressed by glorification, glorification will be controlled in the analyses (Kemmelmeier & Winter, 2008; Roccas et al., 2006).

National Identity and Creativity

There is reason to believe that national identity may also influence creative ability within one's home country. A recent study explored the relationship between motives, values, and national glorification (Roccas, Schwartz, & Amit, 2010). Notably, results showed that people high on glorification also highly valued tradition and stability and placed lower value on openness to change. There was also a negative relationship between glorification and motivation for novelty. While this study did not explicitly test the relationship between glorification and creative ability, it seems to suggest that at the very least people high on glorification may be less motivated or interested in creativity. Additionally, given that creativity research has found that individuals who are open to experience and require little structure or stability tend to be more creative, and given that novelty is considered one of the hallmarks of creativity, glorification may in fact inhibit creative production (Chirumbolo, Mannetti, Pierro, Areni, & Kruglanski, 2005;

Goclowska & Crisp 2013; McCrae & Costa, 1997; Runco, 2011). Moreover, novelty is considered one of the hallmarks of creativity.

Other findings lend secondary support for a negative link between glorification and creativity. Research has demonstrated that national glorifiers also tend to be invested in maintaining the status quo and are uncomfortable with change or questioning current decisions (Rothi et al., 2005). This mindset may inhibit creativity, given that previous work on creativity has shown that brainstorming, generating novel solutions, and entertaining unconventional ideas are important in the early stages of the creative process (Baer, 2012; Runco, 2011). Similarly, Federico et al. (2005) have speculated that high glorifiers may consider narrower range of ideas when making judgments compared to low glorifiers. Thus, I predict that national glorification will negatively predict creativity even among those who have not had multicultural exposure.

Conversely, national attachment may actually support creativity within one's home country—especially when glorification is controlled. Research has shown that constructive patriotism predicts information gathering, critical thinking, support of social change, and acceptance of in-group criticism and dissent (Hornsey, 2006; Janis, 1982; Rothi et al., 2005; Spry & Hornsey, 2007). Information gathering, suspending judgment, and allowing for dissent all seem likely to aid the brainstorming stage of creativity; and creativity is conceptually tied to critical thinking and social change. While these studies do not speak directly to creative ability, the results suggest that attachment may facilitate creativity when glorification is controlled. Therefore, I predict that attachment will positively predict creativity even among those who have not had multicultural exposure.

However, again, these analyses will control for glorification in order to determine the true effects of attachment (Roccas et al., 2006).

In this dissertation, I test these hypotheses across three different studies using several different measures and samples. The next chapter provides an overview of the methodologies, study designs, and hypotheses of all three studies.

CHAPTER 2

CURRENT STUDIES

This dissertation aims to unpack the relationships between creativity, multiculturalism, and national identity across three studies. In this chapter, I provide an overview of the methodologies, operationalizations, and study designs used in this dissertation, as well as the theoretical rationale behind these choices. Specific hypotheses are also reviewed.

Construct Operationalizations

Measuring Creativity: Divergent Thinking

In the current studies, creativity will be assessed using two different divergent thinking tasks. There has been much discussion and debate regarding the best methods for evaluating creativity. In fact, the term "creativity" is so broad that some researchers have argued that not all creativity research assesses the same construct. Along the same vein, there is debate in the literature as to whether a construct of "general creativity" exists, or whether all creativity is domain specific (Baer, 2012). Yet even in light of this debate, divergent thinking tasks—especially "unusual uses" tasks—are often cited by creativity researchers as both the best established measures of general creativity and also

the most promising way to "train" general creativity (Baer, 2012; Ericsson & Charness, 1994; Guilford 1950; Rikers & Paas, 2005).

Divergent thinking tasks are essentially brainstorming exercises that consist of a topic or situation for which participants must generate as many ideas or solutions as possible. There are a number of standard divergent thinking tasks, but the best known are those established by Guilford, such as the Plot Titles Task, the Consequences Task and the Alternative Uses task (1956). For example, in the "Plot Titles" divergent thinking task, participants are given a short story and are asked to generate ideas for possible titles for the story. Similarly, the "Consequences" divergent thinking task requires participants to come up with possible consequences for a specific situation (e.g., what are the possible consequences of the world suddenly being covered with water?).

Divergent thinking is considered an essential part of creativity because it requires people to process information in unique or non-traditional ways (Runco, 2011). However, it is important to note that divergent thinking tasks assess only one specific part of the creative process—idea generation. While idea generation has by far been the most researched stage of the creative process, the entire creative process requires several stages in addition to idea generation, such as idea selection and elaboration (Chiu & Kwan, 2008; Piffer, 2012; Runco, 2011). Because of this, it has been argued that divergent thinking tests could more accurately be described as a measure of *creative potential* rather than an evaluation of creativity itself (Piffer, 2012).

Nonetheless, I believe that divergent thinking is the most appropriate assessment of creativity for this particular line of research for our reasons. First, previous research on creativity and multicultural exposure has largely focused on divergent thinking, thus there

is empirical support for use of this construct (e.g., Lee et al., 2012; Leung et al., 2008; Leung et al., 2010; Tadmor, Satterstrom, Jang, & Polzer, 2012). Secondly, theoretically divergent thinking is the stage of creativity that should be most sensitive to the effects of multiculturalism and national identity. Multicultural exposure aids creativity through increased cognitive flexibility and recombination ability and decreased use of prototypes—skills that are required in idea generation (Crisp & Turner, 2011; Maddux et al., 2010). Thirdly, research has shown that modes of national identity differentially predict information gathering, motivation for novelty, and comfort with change and dissent—skills that are also most relevant to the idea generation stage of the creativity process (Roccas, Schwartz, & Amit, 2010; Rothi et al., 2005; Spry & Hornsey, 2007). Finally, creativity theorists have stated that divergent thinking is a stage of creativity that can be enhanced through training (Baer, 2012; Ericsson & Charness, 1994; Guilford 1950; Rikers & Paas, 2005). Given that I am interested in assessing whether creativity improves following cultural exposure, it is imperative to use a creativity assessment that can change over time.

The current studies utilize Guilford's Alternate Uses task, which requires participants to generate as many uses for a household item as possible (common household items used for this task include a paper clip, a plastic bag, and a brick). Specifically, in these studies, participants are asked to generate uses for a brick. Additionally, participants in the current studies also completed a second divergent thinking task, used by Hirt, Devers, and McCrea (2008), which I will refer to as the "Transportation Task". In this task, participants are instructed to generate as many modes of transportation as possible. I selected this second task because transport is particularly

salient when traveling in foreign cultures and some research suggests that cultural adaption is particularly beneficial to performance on culturally-relevant creativity tasks (Cheng et al., 2008).

Scoring creativity. Divergent thinking tests have been scored in numerous ways, and previous research has relied on both single and multiple indexes of creativity in divergent thinking (Runco, 2011). The three most commonly used creativity indexes in the literature are *fluency, flexibility, and originality.* This dissertation includes assessments of all three of these indexes. By far the most common way to evaluate creativity in divergent thinking responses is to evaluate *fluency*, or which is operationalized as simply the total number of ideas generated (Runco, 2011).

The second index used to evaluate divergent thinking is *flexibility*, or the extent to which ideas are qualitatively different from each other (Guilford, 1956). This is typically operationalized by counting the number of different cognitive categories that participants use when generating ideas (Guilford, 1956; Runco, 2011). This differs from idea fluency because some individuals may be able to generate a large number of ideas, but may only focus on one or two broader concepts. For example, if asked to generate ideas for modes of transportation, one participant may list "riding a horse," "riding a donkey," "riding a cow," "riding a dog" and "riding a cat." While this participant would receive a fluency score of five, it is quite clear that her answers are all actually variations on a single theme. Therefore, this participant would only receive a flexibility score of one. In this way, flexibility can be thought of as a measure of "breadth", or comprehensiveness, of ideas generated (Goclowska & Crisp, 2013).

Finally, the third typical index of creativity is *originality* (also called novelty).

Originality assesses the degree to which generated ideas are unique and novel. There are a number of different ways to code for originality, including numerical counts of statistical infrequency and subjective ratings (Routledge & Juhl, 2012; Runco, 2011).

Empirical evidence shows that these three different creativity indexes—fluency, flexibility, and originality—are highly correlated, thus some researchers only report one score (generally fluency). However, partial variance techniques suggest that each index contributes unique variance and are not interchangeable (Runco, 2011). Therefore, all three indexes will be included in this dissertation.

Measuring National Identity

As mentioned in the theoretical review, research on national identity has used a wide variety of methods and scales. Some studies have assessed modes of national identification using single item measures or short scales consisting of only 2 or 3 items (e.g., Ariely, 2012; Davidov, 2009; Kemmelmeier & Winter, 2008; Peña & Sidanius, 2002; Raijman et al., 2008). Other authors have developed longer scales, some which evaluate a single type of national identity, and others which include multiple subscales of identity styles (Kosterman & Feshbach, 1989; Roccas et al., 2006; Schatz et al., 1999). A few studies have manipulated feelings of national identity (e.g., Kemmelmeier & Winter, 2008; Kowalsi & Wolfe, 1994; Roccas, et al., 2006); although most empirical research has focused on self-report measures (e.g., Schatz et al., 1999; Spry & Hornsey, 2007; Williams et al., 2008).

In order to develop robust and generalizable findings regarding the link between national identity and culture and creativity, the current studies employed multiple

methods to assess national identity. Study two focuses on a single mode of national identity—glorification—and uses a short 3-item assessment. Studies one and three examine both glorification and attachment modes of national identity using an adapted version of a longer scale created by Roccas et al. (2006). The original measure ("Measure of Identification with Israel") consisted of 16 items –an 8-item glorification subscale and an 8-item attachment scale (See Appendix B). Because the original scale explicitly focused on Israel, the adapted scale used in these studies modified the items to be applied to any nation. For example, "I love Israel" was changed to "I love my home country". Pilot tests suggested that several of the adapted items either did not translate accurately, or double-loaded onto both subscales upon exploratory factor analyses and thus were excluded. The final scale consisted of a 4-item glorification subscale and a 7-item attachment subscale.

Measuring Multicultural Exposure: Students Abroad

Studies two and three of this dissertation utilize longitudinal field studies to examine the relationship between national identity and creativity within a multicultural context—specifically, before and after college students participate in cultural exchange programs. Study two focuses on college students who participate in community-based summer cultural immersion projects abroad. Study three surveys college students participating in a variety of academic-based study abroad programs.

Previous research has emphasized that short-term and/or superficial exposure to foreign countries does not predict increased creativity (e.g., Maddux & Galinsky, 2009). However, there is reason to believe that university cultural exchanges and study abroad

programs provide enough cultural integration and adaption to support cognitive change. Research has shown that students enjoy cognitive benefits and personal growth after even brief study abroad experiences, including increased cultural awareness and competence, increased tolerance, and decreased intercultural anxiety (Chieffo & Griffiths, 2004; Lumkes, Hallett, & Vallade, 2012; Stephan & Stephan, 1992). Notably, a few studies have provided evidence that studying abroad fosters certain facets of creative ability, including cognitive flexibility and openness to experience (Bhawuk & Brislin, 1992; Clarke, Flaherty, Wright & McMillen, 2009; Lee, Therriault, & Linderholm, 2012).

Arguably, student cultural exchange programs and study abroad programs are able to facilitate cognitive change quicker than other travel experiences because of the unique contexts of such programs. Unlike other short term travel experiences where people may stay in hotels or resorts and primarily interact with other tourists, study abroad programs and cultural immersion projects usually include home stays, language components and immersion into local communities. Lee and colleagues argue that these types of programs are "quantitatively and qualitatively different experiences when compared with travels or short visits, which provide only a superficial introduction to a new culture" (Lee et al., 2012, p. 769).

Longitudinal design: Pre and post travel assessments. The majority of research on creativity and multicultural exposure has either focused on individuals who have previously lived abroad, or on lab experiments that manipulate cultural exposure (e.g., Leung & Chiu, 2010; Leung et al., 2008). However, little research has examined longitudinal pre-travel and post-travel measures of creativity. Because of this, it is hard to determine whether multicultural exposure actually increases creative performance, or

whether people who chose to go abroad are simply more creative to begin with. Indeed, research suggests "creative types" tend to be more self-confident, motivated, tolerant of ambiguity, and willing to take risks—traits that may make traveling abroad more appealing (Maddux & Galinsky 2009; Simonton, 2000). Studies two and three of this dissertation address this gap in the literature by assessing students' creative ability across time, both before and after they go abroad.

Controlling for differences in experiences abroad. Previous research has shown that contextual differences in experiences abroad are significant predictors of psychological outcomes after travel. Specifically, research suggests that length of time abroad and depth of cultural immersion are two factors that impact cultural adaption and creativity (Cheng et al., 2013; Maddux & Galinsky, 2009). In the current studies, differences in experiences abroad are accounted for in three ways. Firstly, study two controls for individual differences in cultural immersion by asking participants whether they engaged in a number of cultural activities while abroad (see Appendix A). Secondly, study three accounted for length of time abroad by controlling for the number of days of each study abroad program. Finally, both study two and study three accounted for differences in economic wealth across cultural sites by controlling for gross domestic product (GDP) of each country.

Controlling for Motivation for Simple Structures

While there has been little overlap between research on national identity and research on multiculturalism and creativity, there is one broad psychological disposition that has been shown to be related to all three variables of interest—motivation for simple

structures. People who have high motivation for simple structures prefer simplicity, certainty, and order, and dislike ambiguity, complexity, uncertainty or novelty (Cavazo Judice-Campbell, & Ditzfeld, 2012; Neuberg & Newsom, 1993; Routledge & Juhl, 2012; Thompson, et al., 2001). Two operationalizations of motivation for simple structure have been shown to relate to the current variables of interest—Need for Closure (NFC) and the Personal Need for Structure (PNS) (Kruglanski, Webster, & Klem, 1993; Rietzschel, De Dreu, & Nijstad, 2007). Research on creativity has shown that both PNS and NFC inhibit creativity (Leung & Chiu, 2010). Additionally, both measures have been shown to predict prototypical responses (Goclowska & Crisp, 2013; Leung & Chiu, 2010; Tadmor et al., 2012). Finally, NFC has been shown to be positively correlated to national glorification (Federico et al., 2005).

Response to lack of structure scale. For the purpose of this dissertation, I will evaluate motive for simple structure using the *Response to Lack of Structure (RLS)* subscale of the PNS (Neuberg & Newsom 1993; Thompson et al.,2001). Psychometric analyses suggest that that the PNS scale has superior convergent and discriminant validity compared to many other similar measures (Neuberg & Newsom, 1993). Moreover, research has shown that the RLS subscale is negatively related to need for cognition and openness to experience and positively related to worry and self-consciousness (Cavazos et al., 2012). These authors suggest that most results using the PNS as a single factor are likely to be primarily driven by the RLS scale, and therefore urge future research to examine RLS separately.

Exploring Gender Differences

Research examining the link between multiculturalism and creativity has not focused on gender differences. Similarly, little research on national identity has reported gender comparisons, and among those that have, there have not been consistent gender differences in identity (e.g., Kemmelmeier & Winter, 2008; Williams et al., 2008). While creativity research has examined gender differences, results have been inconclusive, occasionally finding higher performance by one or the other gender and often finding no differences (Strotzfus, Nibbelink, Vredenburg, & Thyrum, 2011). Interestingly, some research shows that gender differences in creativity are dependent upon condition and context (Walton & Kemmeleier, 2012). This suggests the importance of examining additional individual differences such as national identity and situational contexts such as cultural exposure. Unfortunately, due to the small and overwhelming female samples in studies two and three, I was not able to explore gender differences in the two multicultural exposure studies. However, exploratory analyses were run in study one to determine whether there are gender differences in the relationship between national identity and creativity.

Overview of Current Studies

In this dissertation, I examine the relationships between national identity, creativity and multicultural exposure. Study one focuses on establishing a direct link between national identity and creativity. In this study, a large sample of American undergraduates filled out an online survey in exchange for partial course credit. The survey included two measures of divergent thinking—the Alternate Uses Task (Guilford,

1967) and the Transportation Task (Hirt et al., 2008) as well as measures of national glorification, national attachment, and response to lack of structure (RLS). I predict that glorification will be negatively related to creativity (hypothesis 1) while attachment will be positively related to creativity (hypothesis 2), controlling for RLS and mutual variance in the national identity subscales.

Study two examines the relationship between national glorification, multicultural immersion and creativity. Participants filled out identical paper-and-pencil pre-travel and post-travel surveys before and after completion of summer cultural immersion projects. The survey included the same two creativity measures from study one, a short assessment of glorification, and a cultural engagement scale to control for differences between cultural sites. I predict that glorification will be negatively related to creativity both before and after cultural immersion (hypotheses 1), and that glorification will be negatively related to creativity following cultural immersion, controlling for differences between cultural sites (hypothesis 3).

Building upon the results from studies one and two, study three explores the relationships between glorification, attachment, multicultural exposure, and creativity. College students enrolled in various study abroad programs were asked to fill out an online survey both before and after they went abroad. The survey included the measure of glorification and attachment from study one, the RLS scale, the two creativity tasks used in the previous studies, and demographic questions about their specific study abroad programs. I predict that glorification will be negatively related to creativity before and after cultural immersion (hypothesis 1). Moreover, glorification should be negatively related to increased creativity following cultural immersion (hypothesis 3). Conversely, I

predict that attachment will be positively related to creativity before and after cultural immersion (hypothesis 2); and that attachment will be positively related to increased creativity following the studying abroad program (hypothesis 4). Consistent with theoretical and empirical evidence from previous research, glorification and attachment will be analyzed together in order to parcel out the differential effects of these two modes of national identity; this is particularly important given that the literature suggests that attachment without glorification may be crucial to facilitating creativity (Kemmelmeier & Winter, 2008; Roccas et al., 2006).

Summary of Hypotheses

This dissertation examines four general hypotheses across three studies.

Hypothesis 1: I hypothesize that national glorification will negatively predict creative performance (controlling for attachment).

Hypothesis 2: I hypothesize national attachment will positively predict creative performance (controlling for glorification).

Hypothesis 3: I hypothesize that national glorification will negatively predict change in creative performance following multicultural exposure (controlling for attachment).

Hypothesis 4: I hypothesize national attachment will positively predict change in creativity performance following multicultural exposure (controlling for glorification).

Addressing Gaps in the Literature

This dissertation adds to the current literature in several ways. Firstly, it combines the research on multiculturalism and creativity with the research on national identity—two areas that previously remained disjointed. Additionally, it provides empirical

evidence that individual differences in national identity predict creative performance. This is a significant contribution to the literature that has primarily examined attitudes and values related to national identity (e.g., Roccas et al., 2010). This research also addresses an important gap in the multicultural and creativity literature that has largely ignored individual differences in home national identity.

Methodologically, this dissertation also makes an important contribution by including longitudinal methods of data collection in order to compare pre and post travel measures of creativity. This is a significant extension to the previous work on multiculturalism and creativity that has primarily relied on cross-sectional data collected at a single point in time (e.g., Clarke et al., 2009; Cheng et al., 2011; Lee et al., 2012; Leung & Chiu, 2010; Maddux & Galinsky, 2009; Maddux et al., 2010).

CHAPTER 3

STUDY 1

Study one explores whether there is a relationship between modes of national identity and creativity. Research has shown that people high on national glorification tend to devalue novelty and change—factors central to creativity in general and divergent thinking specifically (Roccas et al., 2010). Conversely, attachment—when glorification is controlled—has been shown to be related to information gathering, critical thinking, and acceptance of dissent—skills conducive to creativity (Spry & Hornsey, 2007). Therefore, I hypothesize that there will be a negative relationship between national glorification and creativity and a positive relationship between attachment and creativity. Because previous research has shown that the two types of national identity are positively correlated—and that the effects of attachment are best understood when parsed from the effects of glorification—analyses will control for mutual variance in glorification and attachment.

Methods

Participants

A total of 193 American undergraduate students participated in this study. The sample included 82 women and 111 men (mean age 18.83 years, SD=.93 years). The sample was predominantly White (157 Whites, 25 Asian American, 8 Black/African Americans, 5 Hispanic/Latino, and 11 other). Participants were drawn from the introductory psychology subject pool and received partial course credit for their participation in the study. In order to qualify for the study, participants first had to answer a series of prescreening questions. Specifically, participants had to mark the United States as both their "home" country, and their "current residence", and indicate that they were US citizens.

Materials

National Identity Scale. National identity was measured using items adapted from Roccas and colleagues ("Measure of Identification with Israel" 2006). Glorification was measured using a 4-item subscale (Cronbach's α = .71). A sample item is "*My home country is better than other nations in all respects*". Attachment was measured using a 7-item scale (Cronbach's α = .87). A sample item is "*I am strongly committed to my home country*". Participants responded to all items on a Likert scale from 1 = *strongly disagree* to 5=*strongly* agree. A principle component analysis supported a two factor solution (glorification items α = .59-.81; attachment items α = from .60-.83).

Creativity. Creativity was measured using two divergent thinking creativity measures—the Alternate Uses Task (Guilford, 1956) and the Transportation Task (Hirt et

al., 2008; Cheng, et al., 2013). For the *Alternate Uses Task*, participants were asked to generate as many uses for a brick as possible. For the Transportation task, participants were told to generate as many modes of transportation as possible. However, following protocol used by Cheng et al. (2013), participants were told they were NOT allowed to use 7 common modes of transportation – bus, bike, car, plane, boat, taxi, and subway[2]. Following standard divergent thinking task instructions, participants were encouraged to generate as many ideas as possible but were not explicitly told they would be evaluated on creativity. Participants' responses to the divergent thinking tasks were coded to assess three creativity indexes—fluency, flexibility and originality. Multiple experienced coders who were blind to both hypotheses and conditions coded the data. Interater reliabilities were high.

Fluency. Creative fluency was coded for both tasks using the Guilford Divergent Thinking Coding Scheme (1967). Fluency was computed using a direct count of the total number of ideas listed by each participant for each task. For instance, a participant who came up with 8 different uses for a brick would receive 8 points for creative fluency.

Flexibility. Flexibility, or the extent to which ideas generated differed from each other, was also coded using Guilford's coding scheme (1967). Specifically, two experienced coders first read through the qualitative responses and then sorted all ideas into broad conceptual categories. Next, coders counted the total number of categories

[2] Participants were not allowed to use these modes of transportation because previous research indicates that these modes were extremely common responses and allowing people to list these led to little variation in responses and divergent thinking.

included in each participant's answers in order to create a flexibility score. For the transportation task, answers fell into one of seven flexibility categories—*Water Transportation* (e.g., 'jet skis', 'submarine'), *Air Transportation* (e.g., 'hot air balloon', 'hang gliding'), *Animal Transportation* (e.g., 'horseback riding', 'dogsled'), *Land Motor-Transportation* (e.g., 'motorcycle', 'segway'), *Land Self-Powered Transportation* (e.g., 'skateboarding', 'running'), *Mental Transportation* (e.g., 'reading a good book', 'love') and *Fictional Transportation* (e.g., 'magic carpet', 'teleportation'). Interrater correlations for this task were calculated using the Spearman-Brown correction equation. The correlation between the two coders was high (r = .93), therefore, the two coders scores were averaged to create a composite score.

Eleven flexibility categories were created for the Alternate Uses for a Brick task—*Construction* (e.g., 'build a house'), *Pavement* (e.g., 'garden walkway'), *Weapon/Violence* (e.g., 'kill someone'), *Destruction* (e.g., 'break a window'), *Art/Decoration* (e.g., 'create a sculpture'), *Fix items* (e.g., 'put under a wobbly table leg'), *Weight* (e.g., 'paperweight'), *Entertainment* (e.g., 'play with like blocks'), *Furniture* (e.g., 'use as a stool'), *Conduction* (e.g., 'heat up and use as a stove'), *Tools* (e.g.,'use as a hammer'), and *Miscellaneous* (e.g., 'to save the world from wizards'). Spearsman-Brown interrater correlations were high for this task as well (r = .89) and coders scores were averaged to create a composite score.

Originality. Creative originality on divergent thinking tasks assesses the extent to which participants' responses are unique (Guilford, 1967). For this dissertation, I will be using the "snapshot scoring" method of originality coding that has been promoted in recent research (e.g., Runco, 2011; Silvia, et al., 2008). For this method of scoring,

coders review all ideas generated by each participant and rate each person on a subjective scale for originality. This scoring method has also been called "ideational pools" coding because it requires coders to evaluate the entire 'pool' of ideas generated by each participant (Runco, 2011).

Recent research has argued in favor of this coding method because evaluating the entire pool of generated ideas holistically offers richer information compared to evaluating each idea individually (Runco, 2011). Additionally, I chose to use this coding scheme because it is the most methodologically sound given the study designs used in this dissertation. Since I examine within-subject creativity over time (i.e., study 2 and study 3), traditional methods of originality coding (e.g., calculating the number of times a response appears in a given data set and dividing by number of participants) becomes theoretically problematic.[3] Although this is not an issue in the present study, the same creativity was coding scheme was used across all three studies for the sake of consistency.

For this study, two experienced coders reviewed all ideas generated by each participant and gave each participant a subjective rating between 1 to 7, with 1 = "not at all creative" to 7= "very creative". The Spearman-Brown interrater correlations for this coding scheme were high both for the Transportation Task (r = .86) as well as the

[3] For example, counting numerical rarity across time points introduces the possibility of a history effect; yet, coding for rarity separately at time one and time two is also problematic because it creates two independent coding schemes which makes repeated measures comparisons questionable.

Alternative Uses Task (r = .79). Composite scores were created for each task by averaging the scores from the two coders.

Response to Lack of Structure. Response to Lack of Structure (RLS) assesses people's comfort with ambiguous and unstructured situations (Neuberg & Newsom, 1993). High RLS is indicative of people who have rigid, "black-and-white" thought processes and are especially dependent on structure and routine (Cavazos et al., 2012). RLS was evaluated using a 7-item, single dimensional scale (Cronbach's α =.78). Participants responded to this questionnaire using a Likert scale from 1= strongly disagree to 6= strongly agree. A sample item is "*I do not like situations that are uncertain*" (Neuberg & Newsom, 1993).

See Appendix A for a complete list of items and measures.

Procedure

Participants were recruited through the psychology subject pool during the Fall of 2011. Data was collected at only one time point and participants were instructed to complete the survey in a single sitting. Prospective participants first completed the prescreening measures, then qualified participants were directed to fill out an online survey through the survey website Qualtrics. The survey took approximately 20-30 minutes to complete. After consenting to participate in the study, participants were asked to complete several psychology measures and two idea generation creativity tasks. For each task, participants were presented with a screen containing instructions and 25 single line text boxes in which to type their ideas. Participants were instructed to work on the task for 3 minutes and then move onto the next page. The amount of time that

participants took to complete each task was recorded, but no strict time limit was enforced. The order of the two creativity tasks was randomized to counter balance whether participants received the "transportation task" or the "alternate uses task" first. Lastly, participants then completed a short demographics survey (indicating their age, race, gender), were thanked and debriefed.

Results

Preliminary Findings

Performance on both creativity tasks were highly correlated for all three indexes of creativity—fluency (r = .60, p <.0001), flexibility (r = .39, p <.0001), originality (r = .49, p <.0001). Consequently, a composite score was created for each creativity index by averaging the scores on the Transportation Task and the Alternative Uses (Brick) Task. This composite was used for all subsequent analyses in this study. On average, participants generated around 10 ideas to the creativity tasks, encompassed around 4 categories, and averaged about 3 out of 7 on originality (See Table 1).

Consistent with previous literature, national glorification and national attachment were positively correlated (r = .35, p < .001) (e.g., Kemmelmeier & Winter, 2008; Roccas et al., 2006). Also consistent with previous findings, RLS was positively correlated with both glorification (r = .21, p = .003) and attachment (r = .16, p = .03) (Federico et al., 2005).

Independent t-tests demonstrated that there were gender differences on RLS, and the amount of time spent on creativity tasks. Women scored higher on RLS compared to men (p = .01), and spent longer on the creativity tasks compared to men (p = .001).

Women also performed better on fluency (p = .05) and flexibility (p = .05) creativity indexes compared to men, while men scored marginally higher on national glorification compared to women (p = .06). There were no significant gender differences on national attachment or creative originality (see Table 2 for analyses).

Hypothesis Testing

Multiple linear regressions were conducted for each creativity index to determine whether differences in national identity significantly predicted creativity. Because the two modes of national identification were positively correlated, and because previous research has demonstrated the importance of controlling for variance in each mode (e.g., Kemmelmeier & Winter, 2008; Roccas et al., 2006), both types of national identification were entered as independent variables in the analyses, along with gender and RLS.

The results of the regression model explained 14% of the variance in creative fluency (R^2 =.14, F(4, 192) = 7.37, p <.001). Glorification significantly predicted fluency scores (β = -.25, p =.001) as did attachment (β = .32, p <.001) and gender (β =.14, p = .05). Similarly, the model explained 12% of the variance in creative flexibility (R^2 =.12, F(4, 192) = 6.33, p <.001), with glorification (β = -.22, p = .003), attachment (β = .29, p < .001) and gender (β =.15, p = 04) significantly predicting flexibility. Finally, results from the regression showed that the model explained 13% of the variance in creative originality (R^2 =.13, F(4, 192) = 6.33, p <.001); and that both glorification (β = -.30, p < .001) and attachment (β =.27, p <.001) were significant predictors. Therefore, the results confirmed my hypotheses (hypothesis 1 and hypothesis 2) (See Table 3 for complete analyses).

Because participants in this study were instructed to work on each creativity task for three minutes, but were not prevented from spending more time on the tasks, additional exploratory analyses were conducted to examine the effects of time. An identical multiple linear regression model was run with time (in minutes) spent on the creativity task as the dependent variable. This model accounted for 11% of the variance in time spent on the creativity tasks (R^2 =.11, $F(4, 192) = 5.94$, $p < .001$); glorification (β =-.18, p =.02), attachment (β =.20, p =.001) and gender (β =.25, p = .001) were significant predictors. In light of these findings, the initial regression models were rerun controlling for time. The pattern of results were identical for national identification, however, gender differences on creativity disappeared when amount of time spent on task was controlled.

Discussion

This study examined the relationship between national identity and creativity. I hypothesized that glorification would negatively predict creativity (hypothesis 1), while attachment would positively predict creativity (hypothesis 2). Study one empirically tested these relationships by assessing participants' national identity and then having participants perform two creative divergent thinking tasks. Following advice from previous research, regression models were run with both glorification and attachment entered as simultaneous predictor variables in order to control for variance in both modes of national identity. Results from study one confirm my hypotheses. Individuals who were high on national glorification performed less creatively on all three creativity indexes (fluency, flexibility, and originality) averaged across the two difference creativity

tasks. Conversely, individuals high on national attachment performed more creatively on all three creativity indexes. These results were found controlling for Response to Lack of Structure, gender differences and amount of time spent on the creativity task.

This study also included exploratory analyses to determine whether there were significant gender differences in this model. Previous research on gender and creativity has been inconclusive and inconsistent (Kaufman, Baer, & Gentile, 2004; Strotzfus, et al., 2011; Wolfradt & Pretz, 2001). In the current study, women outperformed men on creative fluency and flexibility, and also spent more time on the creativity tasks. However, once the amount of time spent on the creativity tasks was controlled, gender differences in creativity disappeared, suggesting that these gender differences were driven by the amount of time spent on the tasks. This is consistent with research showing that individuals' fluency and flexibility scores on divergent thinking tasks increase when they are not under time constraints, while originality scores are unrelated to time (Johns & Morse, 1997).

Interestingly, on average, women spent much closer to the instructed three minutes on the task (3:12 minutes) compared to men (2:31 minutes). This is in line with previous research which has shown that women are more self-disciplined, better at self-regulation, more conscientious, and more likely to comply to rules compared to men (Duckworth & Seligman, 2006; Gwyther & Holland, 2012; Matthews, Ponitz, & Morrison, 2009; Morrison, 2006; Portillo & DeHart-Davis, 2009; Vecchione, Alessandri, Caprara, & Barbaranelli, 2012).

The findings from this study have important theoretical implications. Previous research suggests that national glorification is related to a narrower world view and is

associated with lower motivation for change and novelty; and that constructive patriotism (or attachment without glorification) is related to acceptance of descent, tolerance for difference and critical thinking (Janis, 1982; Roccas et al., 2010; Rothiì et al., 2006; Schatz et al., 1999; Spry & Hornsey, 2007). However, to the best of my knowledge, this is the first study that has empirically tested the relationship between national identity and creative performance.

This research has important real world implications as well. Creativity is an important currency in many disciplines, and business professionals have long tried to cultivate creative mindsets (Florida, 2005). This study suggests that individual differences in national identity can inhibit or facilitate creativity. Given this, future business training should explore incorporating discussion of national identity. Additionally, the results from this study bring into question how national identity and patriotism are cultivated in early educational settings and suggests the importance of developing national attachment rather than glorification of home country. Implications and future directions from this study are further discussed in Chapter 6.

Overall, these results establish a link between creativity and national identity. However, this study was limited to American participants who remained within their home country. It is possible that national identity may have a different relationship to creativity when one is immersed in a foreign culture. Previous research has shown that multicultural exposure is related to an increase in creativity (e.g., Maddux & Galinsky, 2009). However, this research has not accounted for individual differences in national identity. Study two and study three address this gap in the literature.

CHAPTER 4

STUDY 2

Study one provides evidence that individual differences in national identity are related to creative performance. However, it is unclear how national identity relates to creativity while in a foreign context. Research suggests that national identity becomes more salient when individuals are in a foreign country (Dolby, 2004; Dolby, 2007; Savicki & Cooley, 2011). This effect may be particularly strong for Americans. Due to the USA's isolation relative to the rest of the world, being "American" is often an assumed identity (Dolby, 2007). Qualitative research suggests that for many Americans, being abroad is the first time people actively claim and process their national identity (Dolby, 2004). In light of this, it is important to explore how national identity may influence the link between multicultural exposure and creativity among Americans abroad.

Theoretically, multiculturalism is believed to enhance creative ability because being abroad constantly challenges individuals' assumptions and stereotypes and trains individuals to be adaptive and rely less on culturally prototypical responses (e.g., Crisp & Turner, 2011). However, research on national identity suggests that glorifying one's home nation may inhibit this process. National glorification promotes the sense that one's

home country is *superior*, which inherently requires the devaluation of other countries and cultures (e.g., Ariely, 2012). Empirical evidence suggests that people high on national glorification tend to feel threatened by other cultures and to react negatively towards multiculturalism and immigration (Spry & Hornsey, 2007). Therefore, people who glorify their home country should be less invested in adapting to and integrating information from other cultures while abroad.

To test this theory, I conducted a longitudinal field study exploring how national glorification influences the link between multicultural experiences and creativity among students who participated in summer cultural immersion projects.

Field Site: Global Intercultural Experience for Undergraduates

The cultural immersion experience examined in this field study was the Global Intercultural Experience for Undergraduates (GIEU) at the University of Michigan. GIEU is a non-profit summer cultural immersion program sponsored by the university. The program began in 2001 with 24 students and 6 field sites and has since grown to encompass as many as 200 students and 14 field sites per year (Fernandez, 2006). Each field site typically consists of 8-20 undergraduate participants and 1-2 faculty field site leaders. Unlike general study abroad programs where the focus is on academic course work, this unique program is specifically designed to engage students as active cultural participants and to create deep cultural immersion experiences within diverse and culturally rich settings around the world.

Completing the GIEU program requires students to go through several stages over the span of one year. Once students are accepted to the general program, they must apply

separately to each field site which they are interested in joining. Next, GIEU scholars undergo one semester of training in preparation for the immersion experience, including assigned readings, orientation, seminars and briefings held by the GIEU program, as well any additional meetings or trainings required by their specific field site. GIEU scholars receive university course credit and get paid for their fieldwork abroad.

Entrance into GIEU is a selective process and the program makes an effort to nominate and recruit underclassmen, students from diverse racial, financial and educational backgrounds, and individuals who have had limited opportunity for cultural immersion. Like most university-sponsored cultural experiences, the majority of GIEU participants are women (approximately 77% women; Fernandez, 2006).

GIEU in 2011

GIEU accepted 193 scholars during the span of this research project (the 2011 cycle). Consistent with previous years, there was a great deal of diversity within the program, with 149 women and 39 men (5 declined to state); 94 White scholars, 31 Asian American, 22 Black/African American, 10 Hispanic/Latino, 15 Multiracial, and 7 Middle Eastern (11 other/decline to state). The mean age was 19.66 years (SD =.95), with 34 freshmen undergraduates, 85 sophomores, 68 juniors and 4 seniors (2 declined to state). Twenty-eight scholars reported their household income to be under $30,000, 80 scholars reported income between $30-100,000, and 66 reported income above $100,000 (19 declined to state).

GIEU held 14 different field sites during 2011, including Chile, China (two sites), Detroit[4], El Salvador, Gabon, Greece, Indonesia, Italy, Kenya, New Zealand, South East Asia, Spain, and the Virgin Islands. Each field site experience lasted between 21 and 33 days (mean = 27.37 days; mode = 28 days) and was conducted between May and August of 2011. The goals and purposes of each of the cultural projects varied by site (see Appendix C for abstracts of all field sites).

Methods

Participants

Seventy-eight GIEU scholars agreed to participate in the study and completed all elements of the project, including the pre-travel survey, the semester of GIEU training, GIEU field experience in a foreign country, and the post-travel survey. Consistent with demographic information on GIEU scholars, participants in this study came from diverse backgrounds, although the majority of participants were women. Sixty-four participants self-identified as women and 14 identified as men[5]. Participants ranged in age from 18 to 22 (mean age= 19.68 years, SD =.88 years), with 13 freshmen undergraduates, 39 sophomores, 23 juniors and 3 seniors. The sample was also racially diverse, with 33 White participants, 15 Asian American, 9 Black/African American, 5 Hispanic/Latino, 6 Multiracial, 4 Middle Eastern, and 2 other. Eleven participants reported their household

[4] Note that scholars who went to Detroit did not go abroad and were not included in further analyses.

[5] this high percentage of women is consistent with study abroad programs in the United States in general and representative of the gender percentages in GIEU specifically.

income to be under $30,000, 36 reported income between $30-100,000, 26 reported income above $100,000, and 5 declined to state. Sixty-three participants were born in America, 10 were born outside of America but are currently US citizens or permanent residents, 4 were international students on student visas and 1 declined to state.

Materials

This study was part of a larger paper and pencil "Field Experience Survey" packet which participants were required to complete before and after participating in GIEU. Measures relevant to this study include demographic information, a measure of glorification, 2 divergent thinking tasks, and GIEU standard questions about cultural engagement at the field sites. The pre-travel and post-travel surveys were identical, except the pre-travel survey did not include questions about cultural engagement and the post travel survey did not include demographic or background information.

National Glorification. National Glorification was assessed using a three item subscale from a larger Globalcentrism scale (Fernandez, 2006; Cronbach's $\alpha = .59$ pre-travel; .50 post-travel). Participants were asked to state how much they agreed with each statement from 1 = *strongly disagree* to 5 = *strongly agree*. A sample item is "Overall, I think the United States serves as a model that other countries should follow." This is similar to how glorification has been assessed by previous research (Ariely, 2012; Davidov, 2009; Kemmelmeier & Winter, 2008; Raijman et al., 2008).

Creativity Measures. Divergent thinking was operationalized using the same two measures as in study one—*Alternate Uses Task* (Guilford, 1956); *Transportation Task* (Cheng, et al., 2013; Hirt et al., 2008). Data from these measures were then coded by two

experienced coders using the same coding scheme outlined in study one. Inter-rater reliability was calculated using the Spearman-Brown formula. Inter-rater reliability was high, ranging from r = .72 to r = .92, (Mean = .83) and the ratings from the two coders were averaged to create a composite score.

Field Site Measures.

Cultural Engagement. Cultural engagement at field site was assessed using 6-items from the "GIEU-related Field Experience" evaluation established by GIEU ('Activities at the Field Site" subscale; Fernandez, 2006). These items were developed by GIEU to track activities GIEU scholars engaged in while abroad. Participants were asked to respond to what extent they participated in each activity while at their field site from 1 = *not at all like me*, to 5 = *a great deal*. Sample items include "Tried new foods" and "Attended a cultural event." An exploratory factor analysis confirmed that all six items load onto a single factor. Factor loadings ranged from .55-.72 and the scale was reliable (Cronbach's α = .70).

Gross Domestic Product. Cultural-economic differences in field sites were also measured via Gross Domestic Product (GDP). First, the GDP for each site was researched based on the United Nations report of GDP for the year 2011 (United Nations, 2011). Then difference scores were created by subtracting each country's monetary amount from the total US GDP (reported in millions of US dollars) to create a measure of cultural-economic difference between the United States and the field sites.

See Appendix A for all items and measures used in this study.

Procedure

All participants completed a paper and pencil survey both before cultural immersion (time one) and after cultural immersion (time two). At time one, participants reported to the GIEU office at the end of the fall term of 2010, after they were officially admitted to the program but before they began their semester of pre-travel training. GIEU scholars were given the survey as part of a larger packet of paper work that they were required to complete in order to participate in the program. Participants were required to complete the paperwork in one sitting at the GIEU office but were told they could skip any survey questions they did not want to answer for any reason without penalty.

Scholars then completed their pre-travel training during the following term (Winter 2011) and participated in their cultural immersion projects during the spring/summer of 2011. Finally, participates were required to return to the GIEU office at the beginning of the Fall semester 2011 to complete exit paperwork. At this time, participants were asked to fill out the post travel (time two) survey. As with time one, participants were asked to complete the survey in the GIEU office in one sitting and were told that they were allowed to skip any questions without penalty.

Results

Preliminary Results

Consistent with study one, correlations for performance on the two creativity tasks were high (r = .22-.51). Therefore, composite creativity scores were created by averaging the scores on the two creativity tasks. These composite scores were used for all further analyses. Paired-t-tests revealed that overall there were no significant differences

before and after travel on fluency or flexibility. However, there was a significant increase on originality scores after travel t (77) = - 4.86, p < .001). There was no significant difference pre and post travel on national glorification (see Table 4 for analyses).

Differences in cultural immersion programs were also explored. Specifically, I examined the difference in GDP between the USA and the country which participants' field sites were located. On average, there was a $ 14,080,938 (SD = 2,533,103) million dollar difference in GDP between the USA and the cultural field sites. GDP was not correlated with creativity indexes. However, there was a negative correlation between GDP difference scores and post-travel glorification (r = - .24, p = .04), suggesting that traveling to sites with lower GDP was related to lower glorification after travel. There were no significant correlations between cultural engagement at field site and the other variables of interest.

Hypothesis Testing

The relationship between national glorification and creativity before travel was investigated using linear regressions with pre-travel glorification as the predictor variable and pre-travel creativity indexes as the dependent variables. Results suggest a trend toward a negative relationship between glorification and creativity. However, these results were only statistically significant for the originality index (β = -.25 p =.03) (See Table 5).

To examine the relationship between post-travel glorification and post-travel creativity, creativity was regressed on glorification. In this case, post-travel glorification was significant predictor of all three indexes of post-travel creativity—fluency (β -.37, p

= 001), flexibility (β = - .36, p = .001), originality (β = -.39, p = .001) (see Table 6). Together, these findings generally provide support for hypothesis 1.

Finally, in order to examine whether national glorification was related to change in creative performance following cultural immersion, multiple linear regression models were run with average glorification[6] and pre-travel creativity indexes as predictor variables and post-travel creativity indexes as the dependent variable. This analysis controls for baseline creativity before travel and allows for examination of change in creativity over time. Field site differences (i.e. GDP difference scores and cultural engagement) were also included in the model as control variables.

Results show that this model accounts for 19% of the variance in fluency (R^2 = .19, F(4, 70) = 4.00, p = .01) and that glorification significantly predicts change in creativity (β = -.26, p = .02). Results for the other two creativity indexes were virtually identical. The model explained 17% of the variance in flexibility (R^2 = .17, F(4, 70) = 4.00, p = .01) and glorification was a significant predictor (β = -.24, p =.04). The model also explained 18% of the variance in originality (R^2 = .18, F(4, 70) = 3.96, p = .01) with glorification as a significant predictor (β = -.26, p =.02) (see Table 7). Therefore, hypothesis 3 was also confirmed.

[6] Empirical evidence from this study suggests that this measure of glorification was stable over time—paired t-tests showed no significant differences before and after travel. Therefore, pre-travel and post-travel glorification scores were averaged for repeated measures analyses.

Discussion

While previous research has shown a positive link between multicultural exposure and creativity, it has not accounted for individual difference in national glorification. The current study addresses this gap in the literature by explicitly examining the relationship between national glorification, multicultural exposure and creativity among participants in a cultural immersion program.

Before cultural immersion, there was a negative trend between glorification and creativity. However, this relationship only reached statistical significance for the originality index of creativity. After completing the cultural immersion program, post-travel glorification significantly negatively predicted all three indexes of post-travel creativity. Interestingly, this seems to suggest that the relationship between glorification and creativity becomes stronger after being immersed in a foreign culture. This makes sense considering that being abroad heightens the salience of one's home identity (Savicki & Cooley, 2011).

This study also examined whether there is a relationship between glorification and change in creative performance following cultural immersion. Results show that glorification negatively predicted change in creativity on all three creativity indexes, controlling for differences in field sites. This finding has important implications. While previous research has supported a positive association between cultural immersion and creativity, the findings from this study suggest that this is not always the case. In fact, it seems that when people glorify their home country, multicultural exposure backfires and creativity is inhibited. This adds a substantial caveat to previous findings on culture and

creativity, and suggests that multicultural exposure may not always lead to creative benefits.

Along a similar vein, this study also adds to the literature by providing longitudinal evidence of change in creativity over time—both before and after multicultural exposure. Given that the majority of previous research on culture and creativity has relied on creativity measured at one time point, this study calls into question the extent to which multicultural exposure leads to creative benefits, versus the extent to which individual differences lead to seeking multicultural experiences. The current findings highlights the importance of collecting longitudinal data in future research in order to further understand how creativity changes over time and whether multicultural exposure truly cultivates this change.

This study also has important real world implications. Given that glorification subdues the benefits of multicultural exposure, future cultural immersion programs should pay attention to how participants relate to their home country both before and during cultural immersion. This also applies to business contexts. As businesses increasingly become globalized, it is important that we understand what can be done to facilitate positive psychological outcomes following multicultural experiences. Practical and theoretical implications from this study are further discussed in Chapter 6.

Overall, this study strengthens the pattern of results from study one by duplicating the finding that national glorification is negatively related to creative performance. This study also provides preliminary evidence that glorification inhibits the creative benefits of multiculturalism. However, several questions and concerns remain. Unlike study one, glorification in this study did not significantly predict fluency and

flexibility before cultural exposure. This insignificant finding may be due to the much smaller sample size in the current study, or due to the different measure of glorification. Notably, Cronbach's alphas for this measure were somewhat low both before and after travel, suggesting that this may be an unreliable assessment. Additionally, this study focused solely on national glorification, because previous literature has shown that glorification colors perceptions of foreign cultures and multiculturalism (e.g., Spry & Hornsey, 2007). However, it is also important to explore whether national attachment also influences the relationship between multicultural exposure and creativity.

Finally, this study examined multicultural exposure within a very specific context. GIEU scholars complete months of training before cultural exposure, participate in daily cultural dialog at their field sites, and attend post-travel meetings upon return home. GIEU field sites are also highly standardized. All participants complete identical training, all projects are approximately the same length (3-4 weeks), and all projects emphasize interaction with local culture. Therefore, it is unclear whether these results are generalizable to cultural experiences beyond GIEU, especially since length of cultural exposure and depth of cultural immersion have been shown to affect the relationship between multiculturalism and creativity (Cheng et al., 2013; Maddux & Galinsky, 2009).

Study three addresses these limitations. Specifically, study three uses the national identification scale from study one to examine relationships between both glorification and attachment on creativity both before and after cultural immersion. Additionally, study three surveys students across a variety of different types of study abroad programs.

CHAPTER 5

STUDY 3

The first two studies in this dissertation demonstrate an association between national identity and creativity. Additionally, results from study two show that glorification is related to change in creative performance after cultural immersion. However, it has not yet examined whether national attachment is also related to this change in creativity. The current study addresses this concern by examining the relationship between glorification and attachment and creativity before and after students participate in a variety of study abroad programs.

As mentioned in chapter one, there is reason to believe that attachment may help facilitate cultural adaption. Attachment has been shown to predict lower levels of moral outrage towards other nations, and constructive patriotism (which can be thought of as attachment without glorification) is related to tolerance and support of multiculturalism (Hornsey, 2006; Janis, 1982; Roccas et al., 2006; Spry & Hornsey, 2007). Increased cultural adaption, in turn, is believed to be the key becoming more creative while abroad (Crisp & Turner, 2011; Maddux et al., 2010). Therefore, I hypothesize a positive relationship between attachment and change in creativity following exposure to foreign cultures—controlling for glorification.

I also hypothesize that the findings from studies one and two will be replicated. Specifically, I hypothesize that national glorification will be negatively related to creativity both before and after traveling abroad, while national attachment will be positively related to creativity at both time points. I also predict that glorification will be negatively related to change in creativity after studying abroad.

Study Abroad Programs

Participants for this study were recruited through the Center for Global and Intercultural Study (CGIS) at the University of Michigan. CGIS was created in 2009 to unite the multiple international opportunities and study abroad programs available to undergraduate students at the University of Michigan. The center facilitates a variety of different study abroad programs, including: Global Course Connections, Spring Summer Language Study, and Michigan Global Academic Programs.

Global Course Connections are short-term field-based extensions of University of Michigan courses. Students who enroll in GCC courses during the fall or winter terms have the option to receive an additional 1-2 course credits if they travel abroad for 2-4 weeks over the summer, where they have an opportunity to practice the cultural and linguistic skills that they have learned during the semester. During the time period of data collection for study 2 (2012), GCC offered ten different locations around the world—China, Ecuador, Germany, Italy, Russia, South Africa, South Korea, United Kingdom, and Zambia.

Spring Summer Language Study (SSLS) allows undergraduate students to complete their final two language requirements during one half-term abroad. The

program is designed to help aid students' fluency and understanding a given foreign language through complete immersion. Students spend 3-4 weeks abroad living with host families and participating in internships or volunteer placements that encourage communication in the given language.

Michigan Global Academic Programs (MGAP) is an institutional exchange program which allows undergraduate students to study off campus in another country for an entire term. These global educational opportunities are held in conjunction with partner universities around the world and involve completing university level coursework in programs specifically designed for exchange students.

Methods

Participants

Participants for study three were 74 University of Michigan students who were admitted into study abroad programs through the Center for Global Intercultural Study (CGIS). Consistent with most study abroad programs in the USA, the majority of the participants were women (61 women, 13 men) and White (24 Whites, 7 Asian American, 3 Black/African Americans, 2 Hispanic/Latino, 38 declined to state[7]). Participants were predominately upperclassmen—9 sophomores, 16 juniors, and 49 seniors (mean age

[7] Demographics reported here are taken from the optional questions that were included as part of the study abroad application. Thus, we do not have complete demographic information on all participants. Thirty eight participants declined to state their race, however, historically the majority of CGIS participants are White.

20.70 years, SD=1.34 years). All participants included in this study reported their nationality as “American”.

Study Abroad Programs

This study included a wide variety of study abroad programs ranging between 22 to 188 days in length (Mean = 84.64). Thirty-three participants went abroad during the Winter term and 41 participants went abroad during the Spring and/or Summer term. The majority of students went to Europe for their study abroad experience (41 went to Europe, 12 went to Africa, 8 went to Latin America, 6 went to Asia, 4 went to Oceania, and 3 went to the Middle East). Forty participants reported staying in a homestay while abroad, 11 reported staying in apartments, 21 reported staying in dormitories and 17 did not state[8]. Twenty-four students reported that the primary language of instruction for their course work abroad was English, 21 reported Spanish, 7 Italian, 5 French, 1 German, and 16 declined to state. Differences in GDP between the US and study abroad locations varied from $7,457,713 million to $15,683,589 million (Mean = 14,260,077, SD = $1,457,883).

Materials

The materials and procedures in this study were very similar to those used in study one, except that participants were asked to fill out the survey twice—once before they went abroad and once after they returned from their study abroad experience.

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[8] For housing abroad, participants were instructed to check all that apply, therefore the numbers reported here add up to more than 100%.

Additionally, because a wide range of cultural experiences were included in this study, this also study accounted for length of time abroad, and cultural differences in GDP.

Creativity. Creativity was again measured using the same two divergent thinking tasks (Alternate Uses (Brick) Task; Transportation Task) and results were coded using an identical coding scheme as in the first two studies. Inter-rater reliabilities were calculated using the Spearman-Brown correction equation. Consistent with the first two studies, reliabilities were high, ranging from r =.70 to r =.97 (Mean = .84), therefore, scores were averaged across the two coders.

National Identity. National attachment and national glorification were measured using the same adapted national identity scale used in study one. A confirmatory factor analysis supported the two factor solution used in study one, with 7 items factoring onto the attachment subscale and 4 items factoring onto the glorification subscale. Both subscales were reliable at both time points (glorification Cronbach's α = .71 at time one and α =.75 at time two; attachment Cronbach's α = .87 at time one and α =.84 at time two).

Control variables. This study included three control variables—RLS, GDP, and program length. Response to Lack of Structure was calculated using the same 7-item implemented in study one. Differences in local GDP for study abroad programs were calculated using the same method as in study two (International Monetary Fund, 2013). Additionally, length of study abroad program was also reported in total number of days.[9]

[9] The numbers included here reflect the official length of the study abroad programs provided by CGIS, not numbers reported by students.

Procedure

Participants were recruited through the CGIS website MCOMPASS. All University of Michigan students who were admitted into a CGIS program during 2012 were sent online invitations to participate in the study. Data was collected at two time points—upon acceptance into a study abroad program (pre-travel) and after returning from their study abroad program (post-travel). Because students participated in various programs of different lengths over different time periods, the online link to the survey remained active on MCOMPASS for a year, and pre-travel and post-travel surveys were completed throughout the year. Students who chose to participate in the study clicked on the link in MCOMPASS and were taken to an online Qualtrics survey which took approximately 20-30 minutes to complete. Participants were instructed to complete the survey in a single sitting. Survey instructions and procedures were the same as in study one. All participants who completed both pre-travel and post-travel surveys were entered into a raffle to win a monetary award.

Results

Preliminary findings

Pearsons correlations demonstrated that participants' performance on the two creativity tasks were highly related (r = .34, p =.003 to r = .64 p <.0001), with the exception of the post-travel indexes of originality, which were unrelated (r = .08, p = .49). In order to remain consistent with the first two studies, scores on the two creativity tasks were averaged to create composite scores for fluency, flexibility and originality. However, because the scores on post-travel originality indexes were unrelated, follow up

analyses were also included which examined the two post-travel originality indexes separately.

Paired t-tests showed that overall, studying abroad had no effect on creativity, national identity or RLS (see Table 8). Consistent with study one and previous research, the two modes of national identity were positively correlated to each other both before travel (r = .54, p < .0001) and after travel (r = .59, p < .0001). However, unlike study one and previous research, national identification was not correlated to RLS (although post-travel RLS and glorification was marginal, r = .21, p =.06).

The negative relationship between post travel glorification and GDP difference scores found in study two was also replicated in this sample (r = -.27, p = .02). In other words, studying abroad in countries with lower GDPs was related to lower post-travel glorification. Interestingly, a negative correlation was also found between program length and national glorification (r = -.24, p = .04), suggesting that longer study abroad programs are related to less glorification. GDP and program length were uncorrelated with attachment and creativity indexes.

Hypothesis testing

Creativity before travel. Multiple linear regression models were conducted for each creativity index to determine whether pre-travel creativity could be predicted from the two modes of national identity (glorification and attachment) controlling for RLS. As with study one, both glorification and attachment were both entered in the same analyses in order to control for shared variance in the two variables.

Results of the regression indicated that this model explained 8% of the variance in fluency (R^2 =.08, F(3,70) =.1.89, p = .14). Glorification significantly negatively predicted fluency (β =-.28, p =.05), however, attachment did not. Similarly, the model explained 6% of the variance in flexibility (R^2 =.06, F(3,70) = 1.60, p = .20) and glorification marginally negatively predicted flexibility (β =-.25, p=.08), while attachment did not. For originality, the model explained 17% of the variance (R^2 =.17, F(3, 73) = 4.82, p = .004). Glorification negatively predicted originality (β = -.47, p=.001) while attachment positively predicted originality (β =.33, p =.02). Finally, as with study one, this model was also run to examine the differences in the amount of time spent on the creativity tasks. In this case, neither glorification nor attachment significantly predicted the amount of time spent on creativity tasks (See Table 9 for all analyses). Together, these findings provide support of hypothesis 1 and partial support of hypothesis 2.

Creativity after travel. An identical series of multiple linear regressions were used to test the hypotheses that glorification would be negatively related to creativity while attachment would be positively related to creativity following study abroad experience, controlling for post-travel RLS.

The results indicate that for creativity fluency, the regression model explained 18% of the variance (R^2 =.18, F (3, 70) = 5.06, p = .003). Glorification significantly negatively predicted fluency (β =-.43, p =.002), however, attachment did not. For flexibility, the model explained 21% of the variance (R^2 =.21, F(3, 70) = 6.12, p = .001), with both glorification (β =-.54, p <.001) and attachment (β =.26, p =.05) significantly predicting flexibility scores in opposite directions. For originality, the model explained

10% of the variance (R^2 =.10, F (3, 70) = 2.72, p = .05). Glorification significantly negatively predicted originality (β =-.34, p =.02) and attachment positively predicted originality (β =.31, p=.03). Finally, glorification and attachment were unrelated to the amount of time spent on tasks (See Table 10 for all analyses).

Because the post-travel originality scores were not correlated in this study, analyses were repeated for each originality index separately. On the Transportation task, the pattern of results was replicated. However, for the Alternative Uses (Brick) task, glorification and attachment did not significantly predict originality (See Table 11). These findings also support hypothesis 1 and partially support hypothesis 2.

Change in creativity. To examine whether national identity predicted change in creativity following studying abroad experience, a series of multiple linear regression analyses were conducted on post travel creativity indexes with average glorification and attachment[10] as predictor variables, controlling for average RLS, GDP difference scores, program length and pre-travel creativity.

Results for fluency show that this model accounts for 45% of the change in creative fluency (R^2 =.45, F(6, 66) = 8.96, p <.001). Glorification significantly negatively predicted change in fluency (β = -.36, p = .002), although attachment did not. For flexibility, the regression model explained 34% of the variance (R^2 =.34, F(6,66)=5.60, p <.001), and both glorification (β = -.46, p = .002) and attachment (β = .24, p = .05)

[10] As with study two, national identity remained stable over time (paired t-tests were not significant), so national identity scores from time one and time two were averaged for repeated measures analyses.

significantly predicted change in flexibility in opposite directions. Glorification and attachment did not predict change in originality or length of time spent on task (see Table 12 for all analyses).

Analyses for originality were repeated for each index separately. For the transportation task, this model was significant (R^2 =.29, $F(6,65) = 4.32$, p=.001) and both glorification (β = -.32, p = .04) and attachment (β = .26 (p = .05) predicted change in originality in opposite directions. However, glorification and attachment did not significantly predict originality on the Alternate Uses (Brick) task (see Table 13). These results support hypothesis 3 and partially support hypothesis 4.

Discussion

Study three examined the relationships between national identity, multicultural exposure and creativity among study abroad students. In this study, participants filled out surveys both before and after studying abroad. Surveys included measures of glorification and attachment, two creativity tasks and several control variables. Results from this study confirm that although glorification and attachment are positively correlated, they have opposing relationships with creativity. As with study one, glorification was generally found to be negatively related to creativity, while attachment was generally found to be positively related to creativity.

Results for glorification largely replicated the findings from study two. Multiple linear regressions demonstrated that glorification negatively predicted performance on all three creativity indexes before studying abroad (albeit marginally for flexibility), as well as after going abroad, confirming hypothesis 1. Glorification also negatively predicted

change in creativity after studying abroad on all three indexes (although for originality, only on the Transportation task)—controlling for other variables in the model. This confirms hypothesis 3.

Results on attachment, however, were less clear cut. Before travel, attachment positively predicted originality, but did not predict performance on the other two creativity indexes. After travel, attachment positively predicted both flexibility and originality. Attachment also positively predicted change in creativity for flexibility and originality—controlling for other variables in the model—although the latter was only significant for the Transportation task. These finding lend partial support to hypotheses 2 and 4.

Overall, the findings from study 3 further support the general pattern of results found in studies one and two and emphasize the importance of considering national identity when examining the link between cultural exposure and creativity. Additionally, this study replicated the finding from study two that multicultural exposure alone did not have strong effects on creativity; rather, individual differences in national identity predicted whether participants experienced positive or negative change in creativity following multicultural exposure. As noted in study two, this finding underscores the importance of the longitudinal design implemented in this study.

Additionally, as with both study one and study two, the findings in this study lend themselves to real world applications. Given that this research demonstrates that attachment to one's home nation helps facilitate positive change in creativity following studying abroad, future cultural training programs should focus on how to promote

attachment to one's home nation. However, given that national glorification decreases creativity, it is critical that these training programs promote attachment without inducing national glorification. Further discussion regarding the conclusions that can be drawn from all three studies, as well as the theoretical and practical implications of this work are discussed in depth in the next chapter.

CHAPTER 6

General Discussion and Conclusions

In an age of touch screens, video conferencing and outsourcing, it is not hard to recognize the central roles that innovation and globalization play in our modern world. Yet the interaction between the psychological components related to innovation and globalization—creativity, national identity and multiculturalism—are still not well understood. The goal of this dissertation was to unpack the relationship between these three critical social constructs.

Previous research has established a positive relationship between multicultural exposure and creativity (e.g., Leung & Chiu, 2010; Leung, et al., 2008; Maddux, et al., 2010). Theorists believe that multiculturalism facilitates creativity because cultural adaption challenges people's stereotypes and exposes people to novel solutions (e.g., Crisp & Turner, 2011; Leung & Chiu, 2008). However, this research has largely focused on how individuals manage new, foreign cultural identities and contexts; it has not taken into account how identification with and attachment to one's home country may shape individuals' multicultural experiences. Moreover, research has not yet explored whether there is a direct link between national identity and creativity.

Research on national identity has established two correlated yet distinct modes of national identity—glorification and attachment. Glorification is characterized by a blind alliance to one's nation coupled with the belief that one's home country is superior to all other countries (Roccas et al., 2006). Glorified national identity is related to out-group devaluation, fear of cultural contamination, support of the status quo, and low motivation for novelty (Blank & Schmidt, 2003; Rothi et al., 2005; Roccas et al., 2010; Spry & Hornsey, 2007). In contrast, attachment is characterized as an affinity with and love of country unrelated to outgroup devaluation (Roccas et al., 2006). When glorification is controlled, attachment predicts tolerance, critical thinking, and support of multiculturalism (Hornsey, 2006; Janis, 1982; Spry & Hornsey, 2007).

Summary of Findings

Across three studies, I demonstrate that glorification is negatively related to creativity (hypothesis 1), while attachment is positively related to creativity (hypothesis 2) controlling for mutual variance. Additionally, this research shows that national identity influences change in creativity after multicultural exposure. Specifically, glorification was found to negatively predict change in creativity after cultural exposure (hypothesis 3) while attachment positively predicted change in creativity after cultural exposure (hypothesis 4) controlling for mutual variance.

Study one surveyed a large sample of American participants within their home country. This study demonstrated a direct link between national identity and creativity and provided evidence in support of hypothesis 1 and 2. Study two examined how glorification influences creativity before and after participants completed summer

cultural immersion projects in foreign countries and provided support for hypotheses 1 & 3. Finally, study three builds on the first two studies by examining how both glorification and attachment influences creativity before and after participants complete study abroad programs and provided support for all 4 hypotheses.

While the general pattern of results across all three studies supported my predictions, a few of these trends did not reach statistical significance. In study two, pre-travel glorification did not significantly predict indexes of fluency or flexibility. In study three, attachment did not predict pre-travel flexibility, and was unrelated to fluency at either time point. Although concrete conclusions cannot be drawn from these null results, this pattern of non-significant findings does bring up several interesting points that warrant discussion.

Firstly, the results from study three suggest that glorification may be a stronger predictor of creativity compared to attachment. This is not surprising, as glorification is more closely theoretically related to creativity and multiculturalism, and previous empirical research has shown glorification to be a more reliable predictor of related constructs (see Spry & Hornsey, 2007; Williams, et al., 2008).

Secondly, of the three creativity indexes used in this research program, national identity most consistently predicted originality across the three studies. This also makes sense, given that in past research glorification was negatively related to motivation for novelty (Roccas et al., 2010). Furthermore, this finding also provides support for the argument that the three creativity indexes tap into distinct aspects of creativity and should be analyzed separately (Runco, 2011).

Finally, the pattern of results from both studies two and three suggest that national identity is a stronger predictor of creativity after exposure to foreign cultures. This is consistent with previous research arguing that national identity becomes more salient when one is in a foreign country (e.g., Savicki & Cooley, 2011). These findings highlight the importance of examining individual differences in national identity within research on creativity and multiculturalism.

Interestingly, the means for pre-travel glorification were noticeably lower in both multicultural exposure studies (study 2 mean = 2.16; study 3 mean = 2.22) compared to the mean for glorification in the non-travel study (study 1 mean = 2.56). In other words, people who go abroad seem to glorify their national identity relatively less. This supports previous findings that glorification is related to a devaluation of outgroups and a dislike of multiculturalism and cultural contamination (e.g., Spry & Hornsey, 2007). This pattern also may shed light on at least one reason why more women participate in study abroad programs compared to men; study one suggests that men are more likely to glorify their nation compared to women. Finally, this result also highlights the importance of conducting longitudinal studies on culture and creativity. Specifically, the fact that people low on glorification are more likely to travel abroad may partially account for why people with multicultural experience are more creative.

In contrast, the means for national attachment in the two studies that examined attachment were nearly identical (study 1 mean =3.68; study 3 pre-travel mean = 3.62). This further suggests that national glorification is the driving force inhibiting multicultural

experiences. In all studies, average national attachment was higher than national glorification. This is consistent with previous findings (Williams et al., 2008).

Theoretical Implications

Findings from this program of research address several gaps in the existing literature and have important theoretical implications. Methodologically, this research contributes to the current literature on creativity and multiculturalism by providing longitudinal quantitative data across two studies that explicitly compares levels of creativity both before and after an applied context of programmatic multicultural exposure. This addresses an important gap in the literature given that the majority of previous research has either compared the creativity of groups who have recently been abroad to those who have not been abroad (e.g., Lee et al., 2012) or surveyed the extent of participants' past multicultural experiences (e.g., Maddux, et al., 2010). These methodologies are a serious limitation to this important body of work, producing findings that cannot ascertain whether differences in creativity are due to exposure to a foreign culture or due to individual differences among those who self-select and are able to go abroad.

Indeed, the findings from the current work suggest that some of the previous findings may be due to self-selection. As mentioned above, participants in the multicultural exposure studies self-reported lower levels of pre-travel glorification compared to participants who were in the non-travel study. Similarly, participants' mean level of Response to Lack of Structure was also lower among participants who were about to go abroad (study 3 mean = 3.16) compared to those who were not going abroad

(study 1 mean = 3.50). These findings imply that people who chose to go abroad may have a more flexible and culturally adaptive mindset and be more likely to be creative before they ever set foot in another country. Additionally, these studies found few main effects for creativity before and after traveling abroad. This provides further argument for the importance of collecting longitudinal data to establish whether previous findings are truly due to multicultural exposure, or simply driven by self-selection.

These studies complicate the picture painted by previous research by demonstrating that not everyone who goes abroad becomes more creative. In fact, the results suggest that in some cases, being abroad may inhibit creativity. Both studies two and three demonstrate that glorification undermines creativity over time as a function of multicultural exposure. This finding highlights the importance of examining individual differences and provides evidence that multicultural exposure is not synonymous with creative benefits.

This dissertation also makes great strides in promoting interdisciplinary research. The current studies draw from work on a number of different areas and disciplines, including research published in political psychology, social psychology, cognitive psychology, industrial psychology, business, education, political science, and sociology. This interdisciplinary literature review allowed me to unite two previously disjointed lines of work—research on national identity and research on culture and creativity. Integrative research is necessarily in order to bridge the gaps in the existing literature and provide a more complete picture of the interactions between culture and creativity.

This dissertation also makes important theoretical contributions to the literature by establishing a direct link between national identity and creative performance. While some research suggests that glorification is negatively related to motivation for novelty (Roccas et al., 2010); to the best of my knowledge, no other research has provided empirical evidence that individual differences in national identity can inhibit or facilitate creative performance. This finding has important implications for future research.

Previous research on culture and creativity has focused on exposure to foreign cultures; therefore, the creativity boost associated with cultural exposure was only available to those who were able to be abroad for a significant among of time. This severely limits the percentage of the population that might reap the creative benefits of cultural exposure. However, this research greatly broadens these findings by examining individual differences with one's nation. Given that everyone has a home nation, the findings from the current program of research suggest that everyone may be able to become more creative by simply changing the way that they think about their home country. In particular, national glorification seems to be the antithesis to the culturally adaptive, creative mindset that people often gain while abroad. Therefore, in many ways, decreasing national glorification is similar to learning to be cultural adaptive while abroad.

Implications for a National Identity Typology

This dissertation also provides further evidence for the dual nature of national identification. Consistent with previous research, both glorification and attachment were positively correlated, yet predicted outcomes—specifically creativity—in opposite

directions. These findings suggest the possibility of a national identity typology. In other words, certain people may highly identify with one type of national identity but not the other (Roccas, et al., 2006; Williams et al., 2008).

For example, Roccas and colleagues (2006) argue that it may be particularly beneficial to have high attachment but low glorification, because this identity style allows for a positive attachment to the national group without turning a blind eye to the nation's shortcomings. The authors refer to this low-glorifying attachment as "critical" attachment. The authors manipulated this particular national identity type by asking participants to either describe why they loved their country (priming attachment) or asking participants to describe what they would ideally love their country to be like (priming critical attachment). Results showed that participants in the critical attachment condition felt more group-based guilt compared to participants in the attachment condition. This is consistent with their finding that attachment predicted group-based guilt when glorification was controlled.

The aforementioned study did not empirically examine high glorification without attachment, but the authors theorize the existence of this identity type. The idea that someone can glorify an identity that they are not attached to may seem paradoxical, but the authors liken this to Cialdini and colleagues' concept of "basking in reflected glory" (Cialdini et al., 1976; Roccas et al., 2006, p. 708). This research demonstrated that fair-weather sports fans supported "their" team and team symbols during successful periods but did not align themselves with the team during less successful periods (Cialdini et al., 1976). Thus, these "free ride" fans enjoy the psychological benefits of having an ingroup

without the cost of commitment and contribution. Similarly, by believing that one's nation is superior without feeling attached to it, national glorifiers can feel the social support and safety associated with national identity without feeling responsible for its actions (Roccas et al., 2006, p 708).

While these postulations clearly lend themselves to a national identity typology, little research has looked at national identity in this way. A notable exception is a recent study by Williams and colleagues (2008), which compared "constructive patriots"—participants who scored in the top quartile on attachment but the bottom quartile on glorification—to "blind patriots"—participants who scored in the top quartile on glorification but the bottom quartile for attachment. Results showed that blind patriots were significantly more concerned about national security compared to constructive patriots, while constructive patriots scored higher on critical thinking and concern for civil liberties compared to blind patriots (Williams et al., 2008).

In order further explore the idea of a national identity typology, additional analyses were run on the data from study one and study three in the current research. Median splits were created for both national identity subscales, and participants were categorized into one of four national identity types—critical attachment (high attachment/low glorification), detached glorification (high glorification/low attachment), low national identity (low attachment/low glorification) and high national identity (high attachment/high glorification).

Results from study one demonstrate that roughly the same number of participants fell into each of these national identity types (critical attachment n = 50, detached

glorification n = 36, low national identity n = 47, high national identity n = 60). Omnibus ANOVAs demonstrated significant differences across national identity types for all three indexes of creativity (fluency = $F(3,189) = 7.24$, $p<.001$; flexibility = $F(3,189) = 3.74$, $p=.01$; originality = $F(3,189) = 6.46$, $p<.001$). Planned post-hoc pairwise comparisons demonstrate that critically attached participants outperformed detached glorification participants on all three indexes of creativity (fluency $p<.001$; flexibility $p = .005$; originality $p <.001$).

Pairwise comparisons also showed that for fluency and originality, critical attachment participants outperformed low national identifiers (fluency $p=.03$, originality $p=.03$) and high national identifiers outperformed detached glorifiers (fluency $p=.03$, originality $p=.05$). Pairwise comparisons did not show any significant differences between critical attachment and high national identification nor were there any differences between detached glorification and low national identity.

The findings from these additional analyses support the notion of a national identity typology. Of particular note, results show that critically attached participants outperform detached glorifiers across all three indexes of creativity. This is consistent with the theoretical review outlined in this dissertation. Interestingly, the results showed that high attachment coupled with high glorification leads to more creativity compared to high glorification alone. Similarly, critical attachment leads to more creativity compared to low overall national identification. Taken together, these findings lend support to Roccas et al.'s (2006) theory that the most positive psychological outcomes should be

found among those who are critically attached—people who are attached to their country but not blinded by their alliance.

Identical analyses were applied to study three. However, in this case the distribution of national identity types was quite different. While there were an approximately equal number of participants who were critically attached, low identified and high identified before travel, there were only 4 participants who were detached glorifiers. The pattern of results after travel was nearly identical, with only 6 participants who were detached glorifiers. Because of this, study three lacked sufficient power to statistically compare these typologies; however, cursory analyses did confirm an identical pattern of results to study one.

These additional results from study three provide further evidence to the argument that participants who volunteer to go abroad are quite different from participants who do not go abroad. Notably, practically no detached glorifiers, or national "free riders", volunteered to study abroad. This lack of variance in national identity type may also explain some of the marginal and non-significant effects in study three.

Limitations and Future Directions

Limitations

While this line of work provides important contributions to the literature, there are several limitations to the current research that are worth noting. Firstly, because studies two and three were applied field studies, this resulted in limitations within the sample. For instance, because the samples for both field studies were overwhelmingly female, I

was unable to explore gender differences in these studies. Similarly, the majority of participants in all three studies were white. Because of this, it is hard to determine whether these patterns of results can be generalized to racial minorities. Indeed, some research suggests that the concepts of national identity and patriotism hold different meanings for different racial and ethnic groups in America (Peña & Sidanius, 2002).

Yet these samples also have high external validity because they are accurate reflections of students who go abroad in the United States. Data suggests that the typical American study abroad student is a white woman in her early twenties, and that this description has remained consistent over many years (Fernandez, 2006; Redden, 2008). Given this, the current data provides an accurate portrait of study abroad students in the United States, and suggests that these results are generalizable to most study abroad programs.

A second limitation to these findings is that all three studies focused on divergent thinking tasks to evaluate creativity. Divergent thinking tasks assess one aspect of creativity—the ability to generate ideas. However, research has shown that idea generation is only one step in the creative process, and perhaps should more accurately be called a measure of creative potential (Chiu & Kwan, 2008; Piffer, 2012). The current findings do not provide evidence as to whether national identity influences different types of creativity or later stages in the creativity process. However, some research that suggests that it might. Chiu & Hong (2005) have shown that biculturals are better at selecting culturally appropriate products among previously generated ideas. Similarly, Maddux and Galinsky (2009) have shown that people with extensive multicultural

experience perform better on convergent measures of creativity as well as divergent measures. Given that individual differences in national identity appear to inhibit or facilitate cultural adaptation, it seems likely that national identity will also play a role in these other forms of creativity as well. Future research should further explore the relationship between national identity and different types of creativity.

Future Directions

The findings from this dissertation suggest a number of future directions that should be explored. For example, as mentioned above, due to sampling limitations I was not able to examine gender differences in study two and study three. However, it is important that future research examine the possibility of these differences. Currently in the United States, there is a large gender differential in who goes abroad and for what purpose. Recent statistics suggest that in the US, women outnumber men in study abroad programs 2:1, and in some cases even 3:1 (Fernandez, 2006; Redden, 2008). Yet, in the business world, this gender gap flips—with men outnumbering women at least 3:1 (Haslberger, 2007). Future research on gender differences in national identity and multicultural exposure could provide some insight into this gender phenomenon.

Additionally, all three studies here focused on American samples. Therefore it is not known whether this pattern of results is specific to American national identity and Americans abroad, or whether these patterns are universal. Evidence from previous research suggests that either is possible. Much of the research on national identity has found fairly consistent relationships between national identity and many other constructs across different nations (e.g., Jones & Smith 1999 as cited in Jones & Smith, 2001;

Sapountzis, 2008). Therefore, there is reason to believe that glorification and attachment will predict creativity in other nations as well.

However, a recent study suggests that the relationship between national identity and social justice differs across nations (Miller & Sundas, 2013). Therefore national identity may differentially influence cultural adaptation depending on where one is from. Moreover, research on American study abroad students suggests that Americans' experiences abroad may be qualitatively different from people from other nations; national identity may be more salient for Americans abroad compared to people from other countries (e.g., Dolby, 2004).

Previous research on multicultural exposure and creativity is also ambiguous regarding possible national differences. This literature has largely assumed that the link between culture and creativity is universal; yet the majority of this research has focused on Western sojourners. This is a significant limitation given that creativity research suggests that Westerners and Easterners have different conceptions of creativity (Niu & Sternberg, 2006). Future research should examine the relationship between national identity and creativity among Easterners abroad.

Interestingly, both study two and study three showed that there was a negative relationship between difference in GDP and post travel glorification. This means that participants who went to countries that had less economic wealth had lower national glorification following the multicultural experience. This result was not hypothesized, and seems somewhat counter-intuitive. After all, it seems like experiencing a wealthy foreign culture would be more likely to humble notions of the superiority of one's home

nation. However, perhaps people who go to less wealthy countries experience more culture shock, and this may lead to cultural adaptation and inhibit people from blindly supporting their nation's way of doing things. Finally, it should be noted that the current results did not account for differences per capita across sites. Future studies should attempt to further understand these findings by using different measures of GDP (e.g., per capita), and by using other measures to assess cultural distance and culture shock.

Additionally, the current research focused on survey methodology and self-report measures of national identity. Future research should explore whether manipulations of national identity can also boost or deplete creativity. Previous research suggests that it is possible to manipulate national identity. For example, Kemmelmeier and Winter (2008) found that participants who were exposed to an American flag reported higher levels of glorification compared to participants who were not exposed to an American flag. Additionally, as noted above, Roccas and colleagues (2006) also manipulated national identity by priming participants to either be critically attached, or simply attached to their nation. Similar methods could be used to determine whether primed national identity predicts creative performance.

Practical Implications and Broad Impacts

This dissertation project also has clear practical implications. In the current age of instant information and constant reinvention, creativity has been deemed an "international currency"—universally valued and highly sought after (Florida, 2005; Goclowska & Crisp 2013). This is particularly true within business contexts. Creativity is central to leadership effectiveness, especially during times of change (Bennis &

Biederman, 1997). Organizations are honing in on creativity as a requirement for survival in competitive globalized markets where non-creative jobs are increasingly becoming automated (Sawyer, 2012; Sominton, 1994). In fact, in a poll of 1,500 CEOs across the globe, creativity was ranked as the number one "leadership competency" of the future (IBM, 2010). Given the high demand for creativity, understanding how to unlock creative potential is of vital importance. This dissertation provides evidence that creativity can be cultivated—or diminished—over time, and that both individual differences and social contexts can influence this change.

Pointedly, individual differences in national identity determine whether change in creativity increases or decreases after multicultural exposure. This has important implications for international businesses, because it demonstrates that not everyone who is exposed to multicultural contexts will become equally creative. In fact, among people who glorify their national identity, being abroad could actually be detrimental to their creative ability. These findings highlight the importance of training employees to think critically about their national identity before embarking on international assignments. Moreover, businesses should pay careful attention to individual differences in national glorification when determining who would make the best ambassadors for their companies.

Along the same vein, this research also has important implications for study abroad programs and other cultural exchange programs. In recent years, the United States government has emphasized the importance of studying abroad, and has taken steps to help increase opportunities for American students to study abroad (Lincoln Commission, 2005). In fact, Congress as set forth a goal of having one million students studying

abroad by the year 2017 (Lincoln Commission, 2005). However, in spite of this influx of study abroad programs, the cognitive benefits of such programs remain under-researched.

This dissertation provides empirical evidence that these programs can lead to positive cognitive outcomes. However, these results also suggest that the cognitive benefits of being abroad do not happen automatically. Therefore, this research points to the importance of cultural training and intergroup dialog in order to help facilitate cognitive growth among students who go abroad. Given that glorification subdues the benefits of multicultural exposure, future cultural immersion programs should pay attention to how participants relate to their home country both before and during cultural immersion. Training modules should be created in order to help participants think critically about their national identity and refrain from glorifying their home country while abroad.

Regardless of whether the context is business or education, these results promote the notion that not everyone reaps the benefits of multicultural experiences. However, this program of research also offers a possible solution. Previous cross-cultural training programs in both business and education has largely focused on cross-cultural differences in practices and customs (Lee, 2012). Such programs are limited as they are often tailored to the specific culture or trip and do not offer universal benefits. Although perhaps counter-intuitive, the current research suggests that international diversity training modules may best serve participants by not simply focusing on the new foreign countries and cultures, but rather turning inward, and learning how to best identify with and value one's *home* country – through national attachment rather than national glorification at the expense of other groups. Such avant-garde diversity training has the potential to be much

more universal and useful compared to traditional programs, because national identity management applies to any and all cultural contexts—both abroad and even within one's home country.

Future research should focus on how best to establish such training programs. As outlined above, previous research has shown that national identification can be experimentally manipulated; therefore, it is plausible that national identity may be malleable over time with proper training and education.

Similarly, this research suggests the importance of monitoring the development of national identity. Like most social identities, national identity is learned and developed over time, therefore differences in early exposure to national identity types could be influential for cultivating attached national identity—and in turn creativity—later in life. Given this, early educators should focus on how national identity is shaped and taught in schools—both explicitly and implicitly. Education around the importance of critical attachment early in life may be particularly helpful. Similarly, media and governmental portrayals of national identity should promote attachment rather than glorification of the nation.

Conclusion

This dissertation provides evidence that two distinct, yet positively correlated, modes of national identity—glorification and attachment—differentially predict creative performance. Additionally, results also suggest that individual differences in these modes of national identity facilitate the positive relationship between multicultural exposure and creativity that was previously established in the literature. These findings are robust. A

consistent pattern of results was found in all three studies—across different measures of national identity, different multicultural experiences, different assessments of creativity, and controlling for a number of different constructs. Taken together, these studies emphasize the importance of accounting for individual differences in national identity within psychological research on creativity and multiculturalism. Overall, this dissertation makes important theoretical and methodological contributions to the current literature and has important real-world implications for international and intercultural interactions.

TABLES

Table 1

Study One: Descriptive Statistics

	Mean	*SD*
National Glorification	2.56	.75
National Attachment	3.68	.70
Response to Lack of Structure	3.50	.78
Fluency	9.82	4.71
Flexibility	3.91	1.28
Originality	3.04	. 90
Time on Creativity Tasks (in minutes)	2.65	1.63

Note. N = 193

Table 2

Study One: Gender Differences

	Gender				
	Women	Men	*t*	*df*	*p*
Glorification	2.44 (.73)	2.65 (.76)	- 1.90	191	.06
Attachment	3.63 (.72)	3.72 (.68)	-.87	191	.40
Response to Lack of Structure	3.68 (.86)	3.40 (.71)	2.50	191	.01
Fluency	10.59 (4.93)	9.26 (4.48)	1.95	191	.05
Flexibility	4.13 (1.21)	3.76 (1.31)	2.00	191	.05
Originality	3.15 (.94)	2.96 (.87)	1.60	191	.11
Time on Creativity Tasks	3.12 (2.10)	2.31 (1.06)	3.50	191	.001

Note. Standard deviations appear in parentheses below means.

Table 3

Study One: Predicting Creativity from National Identity

	Creativity Indexes															
	Fluency				Flexibility				Originality				Time on Creativity			
Predictor	B (SE)	β	*p*	η_p^2	B (SE)	β	*P*	η_p^2	B (SE)	β	*p*	η_p^2	B (SE)	β	*p*	η_p^2
Glorification	-1.57 (.47)	-.25	.001	.06	-.38 (.13)	-.22	.003	.04	-.36 (.09)	-.30	<.001	.08	-.38 (.16)	-.18	.02	.03
Attachment	2.19 (.49)	.32	<.001	.10	.53 (.14)	.29	<.001	.08	.34 (.10)	.27	<.001	.07	.46 (.17)	.20	.01	.04
RLS	-.51 (.43)	-.09	.23	.01	-.17 (.12)	-.10	.15	.01	-.04 (.08)	-.03	.64	.001	-.16 (.16)	-.08	.30	.01
Gender [0=men] [1=women]	1.34 (.66)	.14	.05	.02	-.39 (.18)	.15	.04	.02	.18 (.13)	.10	.17	.01	.82 (.23)	.25	.001	.06
R^2	.14				.12				.13				.06			
N	193				193				193				193			

Note: B = unstandardized coefficient; SE = standard error; β = standardized coefficient.

Table 4

Study Two: Pre-Post Travel Comparisons

	Survey time				
	Pre-travel	Post-travel	*t*	*df*	*p*
Glorification	2.16 (.74)	2.24 (.67)	-.86	75	.37
Fluency	7.28 (4.46)	7.05 (3.24)	.40	75	.69
Flexibility	5.15 (2.67)	5.23 (2.10)	-.24	75	.81
Originality	2.07 (.77)	2.63 (.74)	-4.86	75	<.001

Note. Standard deviations appear in parentheses below means.

Table 5

Study Two: Pre-Travel Linear Regressions

	N	R^2	B (SE)	β	*p*	η_p^2
Fluency	78	.03	-1.06 (.69)	-.18	.13	.03
Flexibility	78	.03	-.65 (.41)	-.18	.12	.03
Originality	78	.06	-.26 (.12)	-.25	.03	.06

Note. B = unstandardized coefficient; SE = standard error; β = standardized coefficient.

Table 6

Study Two: Post-Travel Linear Regressions

	N	R^2	B (SE)	β	*p*	η_p^2
Fluency	78	.14	-1.78 (.52)	-.37	.001	.14
Flexibility	78	.13	-1.13 (.34)	-.36	.001	.13
Originality	78	.15	-.54 (.15)	-.39	.001	.15

Note. B = unstandardized coefficient; SE = standard error; β = standardized coefficient.

Table 7

Study Two: Change in Creativity Following Cultural Immersion

	Post-travel Creativity Indexes											
	Fluency				Flexibility				Originality			
Predictor	B (SE)	β	*p*	η_p^2	B (SE)	β	*p*	η_p^2	B (SE)	β	*p*	η_p^2
National Glorification	- 1.46 (.61)	-.26	.02	.08	-. 85 (.40)	-.24	.04	.06	-.39 (.18)	-.26	.02	.07
GDP difference scores	<-.001 (.00)	-.03	.79	.001	<-.001 (<.001)	-.04	.73	.002	<-.001. (<.001)	-.02	.87	<.001
Cultural Engagement	.55 (.60)	.10	.36	.01	.16 (.39)	.05	.68	.002	.16 (.17)	.10	.36	.01
Pre-travel Fluency	.20 (.08)	.28	.02	.08								
Pre-travel Flexibility					.23 (.09)	.29	.01	.08				
Pre-travel Originality									. 32 (.14)	.26	.02	.07
R^2	.19				.17				.19			
N	75				75				75			

Note: B = unstandardized coefficient; SE = standard error; β = standardized coefficient.

Table 8

Study Three: Pre-Post Travel Comparisons

	Survey time				
	Pre-travel	Post-travel	*t*	*df*	*p*
Glorification	2.22 (.65)	2.15 (.70)	.89	73	.38
Attachment	3.62 (.66)	3.63 (.67)	-.20	73	.84
RLS	3.16 (.63)	3.12 (.71)	.57	73	.57
Fluency	10.14 (4.20)	10.05 (4.33)	.20	73	.84
Flexibility	4.50 (1.32)	4.34 (1.27)	1.06	73	.26
Originality	3.38 (.93)	3.47 (.83)	-1.12	73	.28
Transportation task only (Originality)	3.63 (1.11)	3.48 (1.18)	1.08	73	.28
Brick task only (Originality)	3.15 (1.17)	3.49 (1.05)	-2.10	73	.04

Note. Standard deviations appear in parentheses below means.

Table 9

Study Three: Pre-Travel Linear Regressions

	Pre Travel Creativity Indexes															
	Fluency				Flexibility				Originality				Time on Task			
Predictor	B (SE)	β	*p*	η_p^2	B (SE)	β	p	η_p^2	B (SE)	β	*p*	η_p^2	B (SE)	β	*p*	η_p^2
Pre-travel Glorification	-1.79 (.91)	-.28	.05	.05	-.51 (.29)	-.25	.08	.04	-.68 (.19)	-.47	.001	.03	.38 (.54)	.10	.48	.03
Pre-travel Attachment	1.14 (.90)	.18	.21	.02	.16 (.28)	.08	.57	.01	.46 (.19)	.33	.02	.01	.76(.53)	.21	.15	.01
RSL	-.66 (.80)	-.10	.41	.01	-.22 (.25)	-.11	.38	.01	-.04 (.17)	-.03	.80	.02	.21(.47)	.05	.66	.02
R^2	.08				.06				.17				.08			
N	74				74				74				74			

Note: B = unstandardized coefficient; SE = standard error; β = standardized coefficient

Table 10

Study Three: Post-Travel Linear Regressions

	Post Travel Creativity Indexes															
	Fluency				Flexibility				Originality				Time on Task			
Predictor	B (SE)	β	*p*	η_p^2	B (SE)	β	*p*	η_p^2	B (SE)	β	*p*	η_p^2	B (SE)	β	*p*	η_p^2
Post-travel Glorification	-2.64 (.84)	-.43	.002	.13	-.97 (.24)	-.54	<.001	.19	-.40 (.17)	-.34	.02	.08	-.26 (1.03)	-.04	.80	.001
Post-travel Attachment	1.13 (.86)	.17	.20	.02	.50 (.25)	.26	.05	.05	.38 (.17)	.31	.03	.07	1.46 (1.07)	.20	.17	.03
RSL	-1.01 (.68)	-.17	.14	.03	-.12 (.19)	-.20	.53	.006	-.12 (.14)	-.10	.39	.01	-.12 (.83)	-.02	.88	<.001
R^2	.18				.21				.10				.03			
N	74				74				74				74			

Note: B = unstandardized coefficient; SE = standard error; β = standardized coefficient.

Table 11

Study Three: Post-Travel Linear Regressions for Originality Indexes

	Post-Travel Originality Indexes							
	Brick Task				Transportation Task			
Predictor	B (SE)	β	*p*	η_p^2	B (SE)	β	*p*	η_p^2
Glorification	-.27 (.28)	-.15	.33	.01	-.57 (.27)	-.28	.04	.06
Attachment	.31 (.26)	.17	.24	.02	.48 (.25)	.25	.06	.05
RLS	.15 (.21)	.09	.48	.01	.06 (.22)	-.03	.79	.001
(Pre) Brick Task Originality	.18 (.11)	.20	.13	.03				
(Pre) Trans. Task Originality					.38 (.13)	.35	.002	.13
R^2	.08				.29			
N	74				74			

Note. B = unstandardized coefficient; SE = standard error; β = standardized coefficient.

Table 12

Study Three: Change in Creativity After Studying Abroad

	Post-Travel Creativity Indexes											
	Fluency				Flexibility				Originality			
Predictor	B (SE)	β	*P*	η_p^2	B (SE)	β	*p*	η_p^2	B (SE)	β	*p*	η_p^2
Glorification	-2.68 (.95)	-.37	.006	.11	-.99 (.31)	-.46	.002	.13	-.17 (.18)	-.13	.35	.02
Attachment	1.18 (.81)	.17	.15	.03	.52 (.26)	.24	.05	.06	.23 (.16)	.17	.15	.04
RLS	-.03 (.71)	-.005	.96	<.001	.01 (.22)	.006	.96	.00	.09 (.13)	.97	.50	.01
GDP difference scores	<.001 (<.001)	<.001	.99	<.001	<.001 (<.001)	.04	.72	.002	.<.001 (<.001)	.05	.61	.01
Program length	-.001 (.01)	-.01	.90	<.001	.01 (.02)	.03	.79	.001	.01 (.01)	.07	.50	.01
(Pre) Fluency	.55 (.10)	.54	<.001	.32								
(Pre) Flexibility					.34 (.10)	.03	.002	.14				
(Pre) Originality									.51 (.10)	.57	<.001	.30
R^2	.45				.34				.40			
N	74				74				74			

Note: B = unstandardized coefficient; SE = standard error; β = standardized coefficient.

Table 13

Study Three: Change in Originality After Studying Abroad

	Post-Travel Originality Indexes							
	Brick Task				Transportation Task			
Predictor	B (SE)	β	*p*	η_p^2	B (SE)	β	*p*	η_p^2
Glorification	-.26 (.30)	-.15	.39	.01	-.65 (.31)	-.32	.04	.07
Attachment	.29 (.26)	.17	.27	.02	.51 (.26)	.26	.05	.06
RLS	.14 (.21)	.08	.52	.01	.08 (.23)	-.04	.71	.002
GDP difference scores	-<.001 (<.001)	-.004	.98	<.001	-<.001 (<.001)	-.12	.32	.02
Program length	.001 (.002)	.06	.66	.003	.01 (.01)	.07	.54	.006
(Pre) Brick Task Originality	.12 (.10)	.14	.31	.02				
(Pre) Trans. Task Originality					.38 (.13)	.35	.004	.12
R^2	.06				.29			
N	74				74			

Note. B = unstandardized coefficient; SE = standard error; β = standardized coefficient.

APPENDICES

APPENDIX A

Measures Used in Current Studies

Creativity: Transportation Task
Instructions: *****Please send about 3 minutes completing this exercise. Move on to the next part after about 3 minutes regardless of how many things you have listed out ***** People use standard modes of transportation everyday, but there are also thousands of interesting and unusual modes of transportation. In the next 3 minutes, list as many modes of transportation as you can think of. Do not limit yourself to typical modes. YOU MAY NOT INCLUDE CAR, BUS, BIKE, AIRPLANE, BOAT, TRAIN, TAXI CAB, SUBWAY in your list.

Creativity: Alternate Uses (Brick) Task
Instructions: ***** Please spend about 3 minutes completing this exercise. Move on to the next part after about 3minutes regardless of how many things you have listed out ***** Many people use bricks to build houses, but bricks have thousands of interesting and unusual uses. In the next 3 minutes, list as many uses of bricks as you can think of. Do not limit yourself to certain kind of size bricks. You may use as many bricks as you like. Do not limit yourself to the uses you have seen or heard about; think about as many new uses as you can.

Adapted National Identity Scale

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

Identification	Item
Glorification	Relative to other nations, my home country is a very moral nation.
Glorification	My home country is better than other nations in all respects.
Glorification	In today's world, the only way to know what to do is to rely on the leaders of my home country.
Glorification	There is generally a good reason for every rule and regulation made by the authorities of my home country.
Attachment	It is important to me to contribute to my home country.
Attachment	It is important to me to view myself as a native of my home country.
Attachment	I am strongly committed to my home country.
Attachment	It is important for me to serve my home country.
Attachment	When I talk about my home country I usually say "we" rather than "they."
Attachment	I love my home country
Attachment	My home country is an important part of my identity.

Note. Items were rated on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

Used in Study 1 and Study 3

Response to Lack of Structure
Instructions: *Please respond to the following statements by indicating the extent to which you agree or disagree with them.*
It upsets me to go into a situation without knowing what I can expect from it.
I'm not bothered by things that interrupt my daily routine.
I don't like situations that are uncertain.
I don't like to change my plans at the last minute.
I hate to be with people who are unpredictable.
I enjoy the exhilaration of being in unpredictable situations.
I become uncomfortable when the rules in a situation are not clear.

Note. Items were rated on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*). This scale was used in Study 1 and Study 3

American Glorification
Instructions: *Indicate how much you agree or disagree with each statement.*
Overall, I think the United States serves as a model that other countries should follow.
American values should be infused in other cultures.
My opinions about another's cultural customs are primarily based on how aligned they are with my own values.

Note. Items were rated on a scale from 1 (strongly disagree) to 5 (strongly agree). Used in Study 2.

Cultural Engagement
Instructions: *To what extent have you participated in the following in during your field experience?*
Tried new foods
Learned a new skill
Attended cultural event (play, festival, dance, museum, etc)
Recreational activities
Used local media (newspaper, radio, magazine, TV news, etc)
Religious/spiritual activities

Note. Items were rated on a scale from: 1 (Not at all like me) to 5 (A great deal)

This scale was used in Study 2

APPENDIX B

Original National Identity Scale (from Roccas et al., 2006)

Measure of Identification With Israel (from Roccas, Klar, & Liviatan, 2006)	
Identification	Item
Attachment	I love Israel.
Glorification	Other nations can learn a lot from us.
Attachment	Being an Israeli is an important part of my identity.
Glorification	In today's world, the only way to know what to do is to rely on the leaders of our nation.
Attachment	It is important to me to contribute to my nation.
Glorification	The IDF [Israeli Defense Forces] is the best army in the world.
Attachment	It is important to me to view myself as an Israeli.
Glorification	One of the important things that we have to teach children is to respect the leaders of our nation.
Attachment	I am strongly committed to my nation.
Glorification	Relative to other nations, we are a very moral nation.
Attachment	It is important to me that everyone will see me as an Israeli.
Glorification	It is disloyal for Israelis to criticize Israel.
Attachment	It is important for me to serve my country.
Glorification	Israel is better than other nations in all respects.
Attachment	When I talk about Israelis I usually say "we" rather than "they."
Glorification	There is generally a good reason for every rule and regulation made by our national authorities.

Note. Items were rated on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

IDF_ Israeli Defense Forces.

APPENDIX C

GIEU Field Sites 2011

[Abstracts written by site leaders and listed at gieu.umich.edu]

SITE - Chile, La Serena

TITLE : The Impact of Andean Astronomy: from the Incas to Google

SITE LEADER: Christopher Miller (Astronomy)

DATES: July 19 – August 11, 2011

ABSTRACT: Approximately 600 years ago, in the mountains of the Andes, a large astronomical facility was built and equipped with 10 special seats for Incan priests to observe the heavens and decide when to plant and harvest crops in order to feed the great Incan empire. Nearly 600 years later, astronomy continues to be weaved deeper into the history and cultures of the Andes as the area remains home to the world's largest astronomical facilities, many of which are utilized by the University of Michigan's Department of Astronomy and Department of Physics. Participants in this project will study the importance of astronomy to the University of Michigan, as well as the people of Chile. Seeking to connect this "big science" to real people and exploring the past, present and future of Andean astronomy, students will participate in homestays and other intercultural immersion activities, as well as visit private and professional astronomical observatories.

SITE: China

TITLE: Nuclear Power Development in China

SITE LEADER: Lumin Wang (Nuclear Engineering and Radiological Sciences)

DATES: May 4 – 31, 2011

ABSTRACT: This project will provide GIEU students the opportunity to witness a large scale nuclear power plant (NPP) construction campaign in China, including the construction of four U.S. designed third generation NPPs that have never been built in the U.S. Through tours, lectures, as well as interaction with local Chinese students and citizens, participants will learn why and how China is conducting this campaign. Alongside this, students will explore the major challenges that such a campaign faces, and will relate these challenges to the forthcoming nuclear power renaissance in the U.S. GIEU Students will interact directly with their Chinese counterparts to exchange views on nuclear power safety, the environmental impact of nuclear power, and the nuclear nonproliferation movement to promote safe and peaceful use of atomic energy.

SITE: China, Tianjin and Beijing

TITLE: Improving Road Safety in China: Engineering, Enforcement & Education

SITE LEADER: Jingwen Hu (University of Michigan Transportation Research Institute)

DATES: July 7 – August 6, 2011

ABSTRACT: Amidst recent rapid economic growth, China has experienced dynamic urbanization and motorization. The costs of this increasing motorization however, have been high as road traffic injury has emerged as a major public health problem in China. Participants in this

project will explore road safety in China through observational surveys, interviews, group discussions and other interactive activities with local Chinese people. GIEU students will partner with students from Tsinghua University in Beijing, and Tianjin University as well as Xinhua High School in Tianjin, to investigate the seatbelt and child safety seat use rate through observations and questionnaires. Interviews will be conducted with drivers, police officers and parents. GIEU students will also visit automotive companies, driving schools, car dealers, transportation research centers, and the Chinese Department of Transportation to investigate how China is grappling with this severe road safety problem.

SITE: El Salvador

TITLE: The Clean Water Team: Understanding Culture in Improving Community Health

LEADER: Janet Ray (School of Social Work)

DATES: July 23-August 14, 2011

ABSTRACT: The scarcity of clean potable water directly impacts the health conditions of local communities across the globe. This project will evaluate the effectiveness of a water purification system developed and installed by Michigan based nonprofit Clean Water for the World (CWW), installed in 32 communities in El Salvador. GIEU students will partner with El Salvadorans to investigate the effectiveness of the water purification units by conducting community base surveys in locations where the units have been installed. Participants will study Spanish, live in a rural community, participate in cultural and historical seminars, as well as explore how to compile survey data in a culturally appropriate format such as street theatre or visually rich posters.

SITE: Gabon

TITLE: Experiencing the Arts and Social Life of the Fang People

LEADER: Mbala Nkanga (Theatre and Drama)

DATES: June 6 – July 4, 2011

ABSTRACT: This project invites GIEU students to discover and experience the people and cultures of Gabon, a French speaking nation in Central Africa. Cultural and artistic activities are deeply embedded in the rhythms of daily life in Gabon, with folkloric dance groups, music ensembles, theatrical troupes and storytellers performing throughout towns and villages at all social events. Students will be involved in a variety of intercultural experiences and activities ranging from ethno-graphic observation-participation, to practical involvement in artistic activities and performances, workshops and seminars with academics and artists, and guided visits into various historical and cultural sites. Participants will further explore Gabon's cultural vibrancy and build dynamic relationships with local communities through accommodations with host families in Libreville and villages surrounding Oyem city.

SITE: Greece

TITLE: Cancer Screening Capacity in Diverse and Economically Disadvantaged Communities

LEADERS: Christopher R. Friese and Maria C. Katapodi (School of Nursing)

DATES: June 24 – July 22, 2011

ABSTRACT: This project will examine major themes of health disparities in cancer screening and care, as well as basic public health issues such as hygiene and nutrition, in underserved areas in Greece. Participants will partake in comparative assessments of three geographically distinct Greek regions, examining how various social and ethical dilemmas, including scant resources and disadvantaged cultural groups, interact with the provision of health care in a multicultural setting.

GIEU students will explore principals of cancer epidemiology, the influence of culture on cancer screening and early detection, various cancer screening modalities, health organization and financing, the development of educational materials for diverse populations, as well as partake in Greek language immersion exercises and an introduction to ancient and modern Greek culture.

SITE: Indonesia, Bali and Java

TITLE: Preserving Ecology and Local Culture in a Global World

LEADER: Agustini (ALC/LSA)

DATES: May 6 – June 3, 2011

ABSTRACT: Culture influences how individuals, communities, and institutions both formal and informal respond to global and development change. Faced with an increasing pace of globalization and modernization, communities and societies face the task of deciding, if they can, which new elements and influences they might accept, and which "traditional" elements they might try to maintain or resurrect. Inevitably, this also has an effect on local environments, and the cultural experiences and knowledge of the earth accompanies them. GIEU students will have the opportunity to explore different local cultures and to learn how people in both Bali and Central Java respond to global pressures by creating sustainable community development projects that are aimed at preserving both ecology and local culture, while participating in global cultures and economies.

SITE: Italy

TITLE: Italian Culture and Food: A Cross-Cultural Exploration

LEADERS: Susan Gass and Tim Webb (Newnan, LSA Advising Center)

DATES: May 7 – June 4, 2011

ABSTRACT: This project brings GIEU students to Italy, the birthplace of the Slow Food movement, to observe and participate in how various populations respond to and interact with food. Moving from the backdrop of American obesity and the American fast and processed food culture, students will explore and experience the sense of community the emerges from sharing the cooking and eating of food, with the ultimate goals of creating and refining healthy and sustainable eating habits. In this, students will gain an introduction to Italian culture and food by cooking and eating like Italians. Participants will work on organic farm, assist with food preparation and distribution in a refugee center, as well as take cooking lessons, live with Italians and visit pivotal historical and cultural sites.

SITE: Kenya

TITLE: Teaching Technology in Rural Kenya

LEADERS: Charles Ransom and Loyd Mbabu (University Libraries)

DATES: June 6 – July 4, 2011

ABSTRACT: GIEU students will partner with the Bishop Law Imathiu Secondary School (BLISS) and other institutions near Meru, Kenya, to teach BLISS faculty and students how to use the internet to aid in teaching and learning. Participants will collaborate with BLISS students to profile their computer familiarity and internet penetration. Out of this, GIEU students will creatively draw upon local student input, utilizing the local population as partners to create a lasting, accessible and culturally appropriate tutorial/video/website for the school. They will extend their impact by training BLISS students in how to introduce the internet to their families, and by creating a variety of online educational materials.

SITE: New Zealand

TITLE: Language, Culture and Learning in Aotearoa New Zealand

LEADERS: Catherine Reischl and Kathryn Young (School of Education)

DATES: May 3 – May 29, 2011

ABSTRACT: Participants will explore the role of language and culture in schooling both in their own lives in Michigan, and in the lives of Maori (indigenous people) and Pakeha (people of European origin) in Aotearoa New Zealand schools. They will explore language and cultural renewal through internships in two multicultural elementary schools, visit secondary schools and community organizations and work on a land reclamation project. Participants will live with families in two home stays, learn and work together with university students and faculty at the University of Waikato and Auckland University and engage in cultural journeys to geological and historical sites.

SITE: Spain

TITLE: El Camino: A Pilgrimage to Comprehend Cross-Cultural Differences

LEADER: Carla Iglesias-Garrido (Romance Languages & Literature)

DATES: May 15 – June 17, 2011

ABSTRACT: El Camino de Santiago (Saint James' Way) has been the source of personal discovery and growth since the IX century. Walking an average of 25 kilometers a day, GIEU students will follow into the footsteps of medieval pilgrims as they visit churches, hostels and restaurants used throughout the centuries on the route. Students will be exposed to a broad spectrum of pilgrims from all over the world and will be required to fulfill a variety of tasks, including inviting other pilgrims to group events, as well as sharing meals with and interviewing

this diverse group of pilgrims. Students will improve their knowledge of Spanish and, most importantly, they will broaden their intercultural understanding, learn to work with a multicultural and interdisciplinary group, and challenge themselves physically and emotionally, to complete the pilgrimage.

SITE: Viet Nam and Laos

TITLE: Beyond the SEA: Intercultural Journey with Vietnamese Students to South East Asia

LEADERS: Rocky Block and ThuyAnh Nguyen (Asian Languages/Cultures & School of Public Health)

DATES: May 4 – May 30, 2011

ABSTRACT: This project partners GIEU students with peers from Hanoi University (HANU) on a journey through Vietnam and Laos to discover, explore and compare the meaning of an authentic intercultural experience in these two South East Asian countries. U-M students will experience, learn, share and participate actively and interactively with their Vietnamese partners in exploring these nation's relative histories and cultures. This comparative understanding will also be facilitated through service work with several NGOs, giving students a first-hand experience in grassroots development. Students will engage in different understandings of memory and history, understanding Vietnam for example, not as the name Vietnam War, but as a country with a rising economy and rich culture.

SITE: Virgin Islands

TITLE: Cultural Preservation, Sustainable Development, and Social Justice in the Virgin Islands

LEADER: Dorceta Taylor (School of Natural Resources)

DATES: May 4 – May 25, 2011

ABSTRACT: The U.S. Virgin Islands (USVI) is a culturally unique part of the country, exhibiting a hybrid culture that draws on Danish, British, Spanish, Amerindians and American influences. The islands, while very American in governance, politics and certain cultural forms, also reflect a distinctly Caribbean culture and experience manifesting in identity and race relations, legacies of colonial economic marginalization and inequality in political representation. This three-week GIEU experience will examine social inequality, culture, identity, sustainable development and climate change issues in the USVI. In this, GIEU students will meet and interact with policy makers, community organizers, and students and faculty from the University of the Virgin Islands, as well as engage in service learning with community groups, farms and eco-reserves.

DOMESTIC SITES (NOT INCLUDED IN ANALYSES)

SITE: Detroit

TITLE: Culture, Care, and Hope: HIV/AIDS and Maternal Child Health in Detroit

LEADER: Leseliey Welch (Women's Studies)

DATES: June 20– July 15, 2011

ABSTRACT: GIEU Detroit students will explore cultural and social issues impacting HIV/AIDS and Maternal Child Health in Detroit. In collaboration with the Michigan Department of Community Health (MDCH) and its partner agencies, students will consider representations and realities of culture, care and hope as they pertain to creating social change, reducing health inequity, and improving public health. Students will have the opportunity to live in the city,

contributing to this work through a variety of internships. Exploration of the intersection of culture and public health will be an essential program theme.

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