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Asking the Right Questions: Insights into Assessing Intercultural Sensitivity

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Asking the Right Questions: Insights into Assessing Intercultural Sensitivity

(Monograph)

by

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ABSTRACT

Intercultural sensitivity represents a well-studied interdisciplinary construct which is measured using multiple tools. However, more effective measurement methods are possible and also needed. This study was intended to refine a well-known tool, i.e., the Intercultural Sensitivity Scale-ISS. New items were written and tested with existing items. 269 undergraduate students completed questionnaires assessing Big Five personality variables, emotional intelligence, Honesty-Humility, intercultural sensitivity, social desirability, and social dominance orientation. Exploratory factor analyses suggested two plausible final scales: 30-items with four-factors (RISS-V1) and 25-items with three-factors (RISS-V2). Both RISS versions demonstrated full scale, subscale, and test-retest reliability. Social dominance orientation correlated negatively while Extraversion, Agreeableness, Imagination/Intellect, Conscientiousness, and emotional intelligence correlated positively with intercultural sensitivity. Honesty-Humility correlations differed based on RISS version, and Neuroticism showed no link. These findings support the reliability and validity of both RISS versions and could help in understanding the nature of intercultural relations.

Keywords: Intercultural Competence, Intercultural Sensitivity, Reliability, Validity, Personality, Emotional Intelligence, Social Dominance Orientation, International Relations, Exploratory Factor Analysis, Test Construction, Scale Development

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"I am only one, but I am one. I cannot do everything, but I can do something. And because I cannot do everything, I will not refuse to do the something that I can do."

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CHAPTER ONE: INTRODUCTION AND LITERATURE REVIEW

1. Introduction

Global diversity merits scholarly attention, considering that international migration, shifts towards multiculturalism, and a more globalized economy have emerged as trends in the modern world (Chen & Starosta, 1996). According to recent statistics, there are 232 million international migrants living abroad (UNDESA, 2013). Turning the spotlight on Canada, census data has shown that immigrants were responsible for approximately half of the upsurge of population growth in the country by the close of the 20th century (Boyd & Vickers, 2000). In keeping with census statistics, it has been found that a sizeable proportion of international migrants reside in Canada, which ranks 7th amongst the 10 countries with the greatest international migration rates (UNDESA, 2013).

The multitude of international migrants, and consequently, greater cultural and ethnic diversity has been interpreted in both a positive and a negative light (Banting & Kymlicka, 2010; Castles, 1999). To elucidate, although migrations across borders can be beneficial for progressing the lives of immigrants, variables such as governmental regulations and adjustment difficulties can serve as roadblocks to successful transition (Castles, 1999). In addition, basic differences between those migrating to a country and host country members can lead to a shift towards multiculturalism in some cases, but towards sidelining ethnic minorities in other cases (Castles, 1999). For the case of Canada, evidence suggests that members of the general society are optimistic about the contributions that immigrants can make (Banting & Kymlicka, 2010). However, there are underlying concerns about issues such as racism towards specific ethnic minorities which remain unresolved (Banting & Kymlicka, 2010). On the whole, the positive

Canadian perspective on immigration and multiculturalism stands in contrast to the European perspective, which is disparaging (Banting & Kymlicka, 2010).

Esses and Gardner (1996) have argued that the examination of attitudes towards different ethnic groups and ethnic identification are important to consider when researching ethnic relations in the Canadian context. Furthermore, such research could enable Canadians to better appreciate and understand ethnically and culturally diverse groups (Esses & Gardner, 1996). This thesis research investigation focuses on how individuals feel about members of other ethno-cultural groups, and draws from an interdisciplinary literature base. The focus is on qualitatively examining a multicultural psychological variable (i.e., intercultural sensitivity), and to provide psychometric support for a revised instrument used to measure intercultural sensitivity. In the following sections, detailed background literature on intercultural competence, intercultural sensitivity, personality, emotional intelligence, and social dominance orientation will be discussed, and the details and hypotheses of the current study will be thoroughly outlined. In order to enhance ease of readership, Table 1 presents an elaboration of all of the abbreviations used in this study.

1.1.Intercultural Competence

Intercultural Communication Competence (ICC), better known as *intercultural competence*, refers to the ability to successfully derive meaning from and engage appropriately in intercultural contexts (Chen & Starosta, 1996; Hammer, Bennett, & Wiseman, 2003). Scholars have shared the view that this construct can be deconstructed into three broad domains: feelings, cognitions and behaviours (Chen & Starosta, 2000; Gertsen, 1989; Spitzberg, 1989). It should be noted that the terms intercultural competence, cross-cultural competence, and cultural competence have been used to describe the same construct (e.g., Nieto & Booth, 2010; Ruben, 1989). However, in

this study, the term intercultural competence will be used. At present, there are multiple models of intercultural competence, each with varying levels of specificity and scope. In order to demonstrate the diversity of models, several will be described, and some of the most prominent models will be presented last.

1.1.1. Models of Intercultural Competence

With regards to models of intercultural competence, one category explores intercultural competence in highly specialized contexts. An example of these models is the Reflective Model (Williams, 2009). According to this model, the three dimensions of intercultural competence can be converted into learning outcomes of successful study abroad (Williams, 2009). For the cognitive dimension, a learning outcome would be the acquisition of knowledge about different cultures (Williams, 2009). For the affective dimension, learning outcomes would be the enhancement of both open-mindedness and flexibility (Williams, 2009). Lastly, for the behavioural dimension, a learning outcome would be the acquisition of skills needed in cultural settings (Williams, 2009). Furthermore, whether these learning outcomes have been obtained can be assessed by getting students to reflect on their experiences abroad (Williams, 2009). It is believed that such a model enables students to actively process their intercultural experiences and provides rich information about the development of intercultural competence (Williams, 2009).

The Reflective Model of Intercultural Competence is specialized, whereas another category of models focuses on intercultural competence in a more general context. For instance, Imahori and Lanigan (1989) developed a Relational Model of Intercultural Competence. This integrative model is based on the following axioms: a) affect, behaviour, and cognition are all interrelated and necessary components of intercultural competence; b) in order to assess intercultural

competence, all those who interact in an intercultural encounter must be examined; c) all those who are interacting should derive benefits from and be able to form long-lasting bonds with others in the intercultural interaction; and d) intercultural competence is not only measured by how appropriate the intercultural interaction behaviours are, but also by whether the interaction results in effective outcomes (Imahori & Lanigan, 1989). In the Relational Model, the two interaction partners are someone from the host country and a sojourner (Imahori & Lanigan, 1989). When these individuals interact, their unique levels of competence, prior experience with members of different cultures, and interactional goals determine the outcome of the interaction (Imahori & Lanigan, 1989).

The Relational Model shares commonalities with another broad model of intercultural competence proposed by Spitzberg (2000). The Spitzberg (2000) model assumes that intercultural competence can be broken down into three systems – individual, episodic and relationship—, and each system has several underlying tenets. To elaborate, one tenet of the individual system is that the confidence of the intercultural communicator affects motivation to interact, which in turn enhances intercultural competence (Spitzberg, 2000). A tenet of the episodic system is that in an intercultural interaction between two individuals, each perceives the other as competent when prototypical expectations are met (Spitzberg, 2000). A tenet of the relationship system is that when individuals receive social support, this has facilitative effects on intercultural competence (Spitzberg, 2000).

Though these models have been examined by researchers, there are two other models which are also prominent: The Process/Pyramid Model of Intercultural Competence (Deardorff, 2006), and the Developmental Model of Intercultural Sensitivity (DMIS; Hammer et al., 2003). According to the Process Model, intercultural competence develops in a series of transitions

from cultural knowledge and comprehension to positive attitudes and skills, and the end result is intrinsic and extrinsic changes in the intercultural domain (Deardorff, 2006). Internally, individuals would become more empathetic and flexible, whereas externally, behaviour demonstrated in intercultural environments would be more effective (Deardorff, 2006). Furthermore, this model is cyclic in nature, implying that intercultural competence is an ongoing process (Deardorff, 2006). The Pyramid Model has the same content and is just as interconnected as the Process Model, but differs in organization (Deardorff, 2006). In the Pyramid Model, the elements of attitudes, knowledge, and skills form the base, and desired internal and external effects form the apex (Deardorff, 2006).

In contrast to the Process/Pyramid models, the Developmental Model of Intercultural Sensitivity is a stage-based process, where individuals transition from lower ethnocentric stages to higher ethnorelative stages, and sometimes may regress to early stages or skip to higher stages in their progression towards intercultural competence (Hammer et al., 2003; Sands et al., 2006). The six stages in this model are Denial, Defense, Minimization, Acceptance, Adaptation and Integration (Bennett, 1986). The Denial Stage is marked by ignorance and a failure to acknowledge cultural differences (Bennett, 1986). The Defense stage involves an acknowledgement of cultural differences and a polarization towards the home culture (Bennett, 1986). In the Minimization stage, cultural differences are blurred to enable cultural similarities to be the common link (Bennett, 1986). The Acceptance Stage is marked by a comfort with cultural differences and Openness to multiple perspectives (Bennett, 1986). In the Adaptation stage, individuals are able to retain their culture and modify their behaviours to function in other cultural contexts (Bennett, 1986). Lastly, in the Integration Stage, the concept of culture is

transformed because people incorporate elements of different cultures into their own cultural self-identity (Bennett, 1986).

1.1.2. Challenges surrounding this construct

Given an understanding of the diversity of models of intercultural competence, it is also important to appreciate the challenges and issues associated with the intercultural competence construct (Rathje, 2007; Ruben, 1989; Spitzberg, 1989). Ruben (1989) identified six main challenges: identifying the facets of intercultural competence (e.g., for relationships, for conveying information and for persuading others); determining diverging and converging constructs; ascertaining whether and how attitudinal, behavioural and/or cognitive elements contribute to intercultural competence; whether to consider this form of competence in terms of dyads, a sender perspective, or a receiver perspective; figuring out the appropriate way of measuring this construct; and determining the directionality between interpersonal and intercultural competence. Several of the issues addressed by Ruben (1989), such as the need for refined measurement techniques, have been described by Spitzberg (1989) as well. Additionally, Spitzberg (1989) has called for the integration of various definitions and methodologies.

Rathje (2007) has recently assessed the literature, and has found several key issues that remain. One such issue is the lack of convergence between varied intercultural competence theories due to an overflow of information and the different lenses through which this construct is operationalized. Another challenge is that definitions of ICC consider the construct as being linked with effective outcomes or with personal development, but not necessarily with both. Equally challenging is that ICC has either been defined in an overly-topical or overly-specialized manner. Yet another issue concerns whether ICC applies to individuals from different nations, or should it be applied more broadly to individuals from different groups within a specific culture.

A last challenge is the way in which to interpret the term culture; i.e., should there be a homogenous or heterogeneous approach taken when considering individual cultures.

1.1.3. Research Findings

Although methodological and theoretical constraints complicate the study of intercultural competence, literature in this area has been flourishing (Leung, Ang, & Tan, 2014), and a sampling of the findings are presented below. Intercultural competence has not only been recommended as a prerequisite in the expatriate hiring process, but it also has been acknowledged that training in intercultural skills may be a key component of future success (Gertsen, 1989). Additionally, intercultural competence has been associated with positive variables such as decreased ethnocentrism (Bennett, 2004), spiritual well-being (Sandage & Jankowski, 2013), and boosts in creativity in multicultural work groups (Matveev & Milter, 2004). Furthermore, research on overseas volunteers has suggested that individuals viewed their intercultural competence as being enhanced under the following conditions: longer-term duration of service, deep engagement into the other culture, greater reflections on intercultural experiences, perceiving intercultural contact as mutually beneficial, being in a specific volunteer program, being female, and having prior experiences abroad (Lough, 2011). Some evidence has suggested, however, that intercultural competence may develop in the absence of prior experience through a combination of grounded theory and experiential learning (Taylor & Henao, 2005).

There is some literature that documents the link between personality and intercultural competence. In a study of Chinese expatriates and their workplace counterparts, the personality variables of Conscientiousness and Openness were found to be related to intercultural competence (Wang, Freeman, & Zhu, 2013). Additionally, the personality traits of Openness,

Extraversion and Agreeableness have been positively linked with expatriate adjustment to intercultural environments (Lawler, Chi, & Huang, 2005), and this has been identified as a desired outcome of intercultural competence (Bennett, 2004). Intercultural competence has also been linked with the tendency towards sensation-seeking (Arasaratnam & Bannerjee, 2011), and has been conceptualized as inclusive of such traits as world-mindedness and relativism (Bradford, Allan, & Beisser, 1998).

This overview of intercultural competence is by no means exhaustive, and further information on the construct can be found elsewhere (see Bradford et al., 1998; Chen & Starosta, 1996; Leung et al., 2014). However, it is noteworthy that Chen and Starosta (1996) have labelled the three underlying dimensions of intercultural competence as intercultural awareness, intercultural sensitivity, and intercultural adroitness. Intercultural awareness falls into the cognitive domain, intercultural sensitivity into the affective domain, and intercultural adroitness into the behavioural domain. In spite of distinctions being made between components, researchers have often treated intercultural competence, intercultural sensitivity, intercultural adroitness, and intercultural awareness as one and the same (Peng, 2006). In the following section, the construct of intercultural sensitivity will be closely examined.

1.1.4. Why intercultural sensitivity?

"Tolerance, inter-cultural dialogue and respect for diversity are more essential than ever in a world where peoples are becoming more and more closely interconnected."(K. Annan, March 21, 2004).

As described in the quote above, humans are living in an interconnected and increasingly multicultural world. The ability to extend beyond self-perspectives and give credence to

alternative viewpoints may facilitate self-growth and enable more ethical treatment of people from other cultural groups (Sheikh, 2001). Intercultural competence has been described as the mechanism through which individuals develop the potential to interact smoothly with diverse groups (Fantini, 2000). This in turn has positive implications in both private and public spheres, all of which are contexts in which differences of perspectives may possibly cause conflict. The answer to why intercultural sensitivity has been given precedence over intercultural awareness and intercultural adroitness lies in the nature of interrelationships between these three variables. Chen and Starosta (1997) has identified that intercultural sensitivity appears to be the core of intercultural competence (i.e. it is preceded by intercultural cognition and followed by intercultural behaviours). This implies that by studying the affective component, it is presumed that intercultural awareness exists, and that intercultural behaviours result as an outcome.

The social psychological literature base provides further insight into why the emotional component of intercultural competence is significant. The construct of *dehumanization* refers to the act of denying individuals of their human qualities and ascribing them with non-humanness (Haslam, 2006). While there are several explanations for the motivations underlying dehumanization, a common view is that individuals are considered human to the extent that their values are congruent with those of others (Haslam, 2006). This said, dehumanization allows for the classification of individuals as sub-human when they deviate from shared values (Haslam, 2006). Research suggests that there are two forms of humanness: unique humanness and human nature qualities (Haslam, 2006). When the former is seen as lacking, people can be considered as animalistic, and when the latter is not ascribed, people are seen as being devoid of depth of emotion and personality (Haslam, 2006). Dehumanization along the lines of race and culture is highly prevalent and both forms of humanness are denied (Haslam, 2006).

The act of dehumanization has far reaching effects given that it has been shown to contribute to treating others poorly and the justification of inhumane behaviours (Bandura, 1999). Furthermore, negative actions targeted towards dehumanized individuals can become cast in a positive light, given that dehumanization enables individuals to frame their actions as morally just (Bandura, 1999). To illustrate the reach of dehumanization, the case of refugees can be examined. Refugees represent a dehumanized group, and when this schema is activated, antipathy towards refugees develops, and is translated into decreased support for refugee initiatives (Esses, Veenvliet, Hodson, & Mihic, 2008). This suggests that dehumanization as a process not only has proximal effects e.g., lack of warmth towards dehumanized individuals in an encounter, but also distal effects e.g., can have implications for the long-term welfare of dehumanized groups. Intercultural sensitivity factors in and may be able to reverse the effects of dehumanization because empathy is seen as a means of reducing the human nature form of dehumanization (Haslam, 2006). Empathy has been seen as one of the key features of intercultural sensitivity (Chen & Starosta, 1997). Thus, understanding how people differ in their warmth and acceptance of diverse others may serve as a barrier against or aid in the reduction of dehumanization.

Studying intercultural sensitivity has merit due to the practical applications of this construct. One widespread global issue concerns the sentiments of police officials towards ethnic minorities (Mosher, 2011). As an illustration, the case of Canadian police officers and visible ethnic minorities can be considered (Ungerleider & McGregor, 1993). Evidence suggests that there is a perception that the police harbor animosity towards minorities, which may be reflected in racism. Consequentially, programs have been developed to target the sentiments of police staff and promote feelings of ethno-relativity and acceptance, with the belief that targeting intercultural

sensitivity would promote better intercultural interactions between these two groups. Another example comes from the educational context. Given the prevalence of international schools and globalized classrooms, the ability to feel interculturally sensitive towards the students being taught is a quality which is highly valued (Burden, Hodge, Bryant, & Harrison, 2004). Programs like the Physical Education Teacher Education Program (PETE) strive to develop intercultural sensitivity in this group of students who shape the future. The goal is to improve knowledge about different cultures in an effort to promote prosocial interactions. All things considered, the examination of intercultural sensitivity by the nature of the construct itself would result in rich insights that feed-forward to assist all citizens in an interconnected world.

1.2. Intercultural sensitivity

To be sensitive signifies that one is keenly perceptive of the senses and quick to feel or react to stimuli (OED Online). An extension of this term is *sensitivity* which refers to the orientation of the self towards other things or people (OED Online). Examples of well-known and studied types of sensitivity are *ethical sensitivity*— the orientation of professionals to the needs of all under their care in ambiguous situations, and subsequently actions taken place in a manner which is compassionate, well-reasoned and in line with rules of ethics (Weaver, Morse, & Mitcham, 2007) – and *interpersonal sensitivity* – the orientation of individuals to the nonverbal cues of other individuals in order to accurately perceive information about thoughts, feelings, and behaviours— (Carney & Harrigan, 2003). Just as ethical sensitivity centers on orienting to ethics, and interpersonal sensitivity involves orienting to non-verbal cues, so too does intercultural sensitivity have a central focus. In the simplest terms, *intercultural sensitivity* refers to a sensitivity or orientation towards differences between cultures (Bhawuk & Brislin, 1992).

At this point, it becomes important to clarify what exactly is being referred to when the term culture is being used. Of the many ways in which culture can be described, some ways the construct has been approached by psychologists are as a) individualistic vs. collectivistic value differences, b) customs and values shaped by contextual situations, c) differences within groups of different caste, ethnicity and socio-economic status, d) skillsets that enable adaptation and survival in an environment, and e) a form of capital that aids in getting access to various resources (Cooper & Denner, 1998). For the purpose of this investigation, the term *culture* will be used in reference to ethnic group differences. The reason for this choice is because in intercultural competence models in which intercultural sensitivity is a component (Chen & Starosta, 1997), ethnic-cultural groups are the focus (Bennett, 2004).

1.2.1. Definitions and Models of Intercultural Sensitivity

Intercultural sensitivity is an interdisciplinary construct which is actively discussed in fields such as cross-cultural psychology (Greenholtz, 2005), nursing (Foronda, 2008), communication studies (Chen & Starosta, 1997; Chen & Starosta, 2000), and education (Taylor, 2013). This broad-scope construct has been defined in various different ways, and there are a few prominent models which are discussed below. Intercultural sensitivity has been described as "the ability to discriminate and experience relevant cultural differences" (Hammer et al., 2003, p. 422). The Developmental Model of Intercultural Sensitivity (DMIS) was described in the subsection above on intercultural competence, and will not be discussed further. The measurement tool derived from the DMIS is known as the Intercultural Developmental Inventory (IDI), and although this tool has been found to be reliable and valid (Hammer et al., 2003), it has shown weak transferability across cultures (Greenholtz, 2005). In addition, it is important to note that the DMIS has been considered as a measure of overall competence as opposed to one of sensitivity

(Chen & Starosta, 1997; Sands et al., 2006), which in turn casts doubt on using the IDI to measure intercultural sensitivity.

Bhawuk and Brislin (1992) have offered an alternative definition of intercultural sensitivity, and define it as the ability to understand different cultures and points of view, and modulate behaviours based on cultural context. Based on this definition, a four-factor model was derived using Open-Mindedness, Flexibility, Individualism, and Collectivism as factors. Open-mindedness refers to an orientation where individuals are not averse to differences in views, customs, beliefs, etc. Flexibility refers to the ability to adapt behaviours in unfamiliar contexts. Individualism and Collectivism refer to the contextual focus (i.e., individualism is a context with focus on the self or independence, whereas collectivism is a context with focus on others or interdependence). The Intercultural Sensitivity Inventory (ICSI) was developed as a means of measuring intercultural sensitivity, as defined by the four-factor model (Bhawuk & Brislin, 1992). The scale was found to have good reliability in two independent samples $\alpha = 0.82$, $\alpha = 0.84$. However, the ICSI has been found to have limited validity (Comadena, Kapoor, Konsky, & Blue, 1999; Matsumoto & Hwang, 2013).

Shortly after the development of the ICSI, Chen and Starosta (1997) reviewed the literature on intercultural sensitivity and resolved that a clearer definition of intercultural sensitivity and a different model is needed, and suggested that individuals who possess qualities of empathy, open-mindedness, are non-judgmental, have high self-esteem, who self-monitor and effectively get involved in interactions are seen as having the necessary prerequisites for intercultural sensitivity. Furthermore, intercultural sensitivity was defined as “an individual's ability to develop a positive emotion towards understanding and appreciating cultural differences that promotes an appropriate and effective behaviour in intercultural communication" (Chen &

Starosta, 1997, p. 5). Chen and Starosta (2000), developed the Intercultural Sensitivity Scale (ISS) based on the Chen and Starosta (1997) definition of intercultural sensitivity. Exploratory factor analytic procedures were used, and the six variables described by Chen and Starosta as being central to intercultural sensitivity did not emerge. Instead, a five-factor structure surfaced (Chen & Starosta, 2000).

The factors underlying the Five-Factor Model of Intercultural Sensitivity are Interaction Engagement, Interaction Attentiveness, Interaction Enjoyment, Respect for Cultural Differences and Interaction Confidence (Chen & Starosta, 2000). Interaction Engagement refers to how involved people feel when they are in intercultural settings, and Interaction Attentiveness refers to whether people feel they are able to discern cues from their interaction partner during an intercultural interaction. Interaction Enjoyment refers to whether people feel like they appreciate the intercultural interaction. Respect for Cultural Differences refers to whether individuals orient to and tolerate opinions of culturally different others. Lastly, Interaction Confidence refers to whether individuals feel comfortable and competent in an intercultural setting. Further information about the psychometric properties of the ISS are presented in the Current Study subsection.

1.2.2. Challenges surrounding this construct

Given that there are varying definitions and models of intercultural sensitivity, it is important to appreciate challenges which affect the definition, and in turn the measurement of this construct. The first challenge which requires addressing is construct overlap. How much overlap exists with other constructs? Can intercultural sensitivity be teased apart from other constructs, and what are its core elements? Preliminary steps have been taken towards clarifying the meaning of intercultural sensitivity using interdisciplinary information (Foronda, 2008). The

analysis of 63 articles across several databases was used to determine the following attributes of intercultural sensitivity: "knowledge, consideration, understanding, respect and tailoring" (Foronda, 2008, p. 208). Being aware of different cultures, having an environment with diverse cultures, and encounters in intercultural contexts have been identified as precursors to cultural sensitivity. Furthermore, intercultural sensitivity is claimed to lend to better communication, better intervention and ultimately more satisfaction. Three of the five elements—consideration, understanding, and respect—are affective. However the other two are about knowledge and behavioural capacity, suggesting that although intercultural sensitivity is focused mainly on affect (Chen & Starosta, 2000), it cannot be disentangled from thought and behaviour.

The second challenge lies in the classification of targets of intercultural sensitivity. Specifically, who are we sensitive towards? Scholars have started to explore this question, and one concern which has emerged is that individuals may not be sensitive to all groups, but rather only to those from different groups with whom they have had contact (e.g., peers in an international school; Taylor, 2013). Further exacerbating the issue is that some measures of intercultural sensitivity (e.g., ISS; Chen & Starosta, 2000) measure sensitivity to all cultures, whereas others measure sensitivity towards specific cultural groups (i.e., individualistic vs. collectivistic; e.g., ICSI; Bhawuk & Brislin, 1992). Yet other measures examine sensitivity towards a particular group (e.g., modified form of ISS; Coffey, Kamkawi, Fishwick, & Henderson, 2013). In order to clear the ambiguity in this area, developing an understanding of who respondents are recalling when answering intercultural sensitivity questionnaire items is necessary.

A final challenge that merits discussion is the lens through which intercultural sensitivity is perceived. Is intercultural sensitivity trait-based or state-based? Research from the study abroad

discipline (e.g., Anderson, Lawson, Rexeisen, & Hubbard, 2006; Johns & Thompson, 2013; Williams, 2005) has tended to treat intercultural sensitivity as a state-based construct, suggesting that study abroad programs can be linked with the shaping of intercultural sensitivity. However, some research suggests that the findings from such studies should be interpreted with caution (e.g., Medina-Lopez-Portillo, 2004). To clarify, it is recommended that programs that are six weeks or shorter in duration be referred to as "field trips abroad", and that these programs should not be a context in which to test changes in intercultural sensitivity (Medina-Lopez-Portillo, 2004; p.196). One explanation for the findings being reported as increases in sensitivity could be due to changes in intercultural knowledge being misconstrued as changes in intercultural sensitivity. In favor of the trait-based perspective is the finding of empirical evidence which supports the theoretical assertion that three years are needed for the development of intercultural sensitivity (Bennett, 1986; Bhawuk & Brislin, 1992). This finding suggests that intercultural sensitivity is relatively stable, and test design paradigms should be taking account of this stability.

1.2.3. Research findings

1.2.3.1. Demographic and personality related findings

In spite of the challenges which surround intercultural sensitivity, a wealth of insights has been gained from studying the relationship of intercultural sensitivity with contextual, demographic, and individual difference variables. Many variables have been linked as predictors and correlates of intercultural sensitivity, and in this subsection, demographic/personality related findings will be addressed. In a sample of Latino immigrants, results showed that in comparison with first-generation immigrants, those who were second-generation had greater intercultural sensitivity levels (Christmas & Barker, 2014). Additionally, research on South Korean

adolescents (Park, 2013) and Turkish University students (Penbek, Sahin, & Cerit, 2012) has shown that multicultural and international experiences have positive associations with intercultural sensitivity. In a large sample study in the Philippines, some notable findings were that increased age, being of male gender, having friendships with those from foreign countries, visiting foreign countries, and having extended stays in foreign countries all were predictive of increased intercultural sensitivity scores (Del Villar, 2010).

In contrast, a study which sampled from elementary schoolteachers in Texas found that neither gender nor age were differentially associated with intercultural sensitivity (Bayles, 2009). However, for the same sample, the number of years spent teaching ethnically diverse students made a difference for intercultural sensitivity, whereas years spent living in a bicultural setting did not. It is important to note that this study examined intercultural sensitivity through the broader lens of intercultural competence. Tamam and Hashmi (2015), in contrast, found that age, but not gender, was weakly positively correlated with intercultural sensitivity in a sample of undergraduate students at a Malaysian university. In the same sample, intercultural sensitivity was also positively linked with interethnic interaction. Additionally, intercultural sensitivity exerts facilitative effects on individuals. For instance, findings from an expatriate sample of professors have shown that intercultural sensitivity was predictive of increased creativity (Katrinlin & Penbek, 2010). Additionally, the intercultural sensitivity level of a leader has been shown to predict leader member exchange ratings (LMX; Matkin & Barbuto, 2012).Such findings suggest that the demographic and personality profile associated with intercultural sensitivity is complex.

1.2.3.2. Global/International relations based findings

Intercultural sensitivity has also been described as a necessary prerequisite for peaceful interactions in a global world (Chen & Starosta, 1997), and research evidence has substantiated this claim. Yu and Chen (2008) have shown that when intercultural sensitivity levels are high, so too is the propensity towards using positive conflict resolution strategies such as integrating or compromising. The finding that intercultural sensitivity is linked with both social intelligence and self-esteem (Dong, Koper, & Collaco, 2008) further suggests that intercultural sensitivity may be one among many adaptive traits for human functioning. In addition, greater intercultural sensitivity has also been associated with greater comfort in intercultural settings (i.e., lesser intercultural communication apprehension; Chen, 2010). This evidence is supported by the finding that intercultural sensitivity has been associated negatively with intergroup anxiety in an Argentinian sample (Peruginni & Solano, 2015). Also, using a Malaysian sample, Tamam and Krauss (2014) have found that the nature of interaction with people from different ethnic backgrounds, termed *ethnic-related diversity engagement*, was linked positively with the following elements of intercultural sensitivity: Openness, confidence, attentiveness, and respect in intercultural interactions.

1.2.4. Intercultural sensitivity and selected study variables

The literature presented on intercultural sensitivity represents a concise yet comprehensive overview of not only what this construct is, but also what the challenges are in understanding this construct and key research findings. In the subsequent three sections, the constructs of personality, emotional intelligence, and social dominance orientation will be reviewed. These selected variables were each chosen for a specific reason. Intercultural sensitivity has been linked with individual differences through its similarity with interpersonal sensitivity (Chen & Starosta,

1997). Both the constructs of EI and personality, as measured through the Big Five and Honesty-Humility, are frequently examined individual difference variables (Ashton & Lee, 2005). Given the importance of these personality variables, their inclusion in this study is justified.

Both the intercultural competence and the intercultural sensitivity literature describe prejudice and lack of tolerance as qualities that embody individuals who are lacking in intercultural competence (Dong et al., 2008; Hammer et al., 2003). While EI and core personality variables allow for examining of the positive pole of intercultural sensitivity, studying social dominance orientation allows for an examination of the negative pole. To elaborate, social dominance orientation is a socio-cultural variable that has been associated with prejudice (Sibley & Duckitt, 2008), and those with lower levels of intercultural competence are seen as endorsing ethnocentric perspectives (Bennett, 1986). Each of these constructs has been studied in relation to intercultural sensitivity or related constructs in the past, and as such, re-examination of these constructs in the context of this study would be beneficial.

1.3. Personality

. The well-known construct of personality has been defined as "a composite of an individual's typical reactions, physical, intellectual, emotional, to his environment, together with his various physical characteristics which constitute what we call his general appearance" (Brandenburg, 1925, p. 140). Both environmental factors and genetic predispositions shape personality (Brandenburg, 1925). Although scholarly definitions of this construct are diverse and focus on different elements, a common thread across definitions is the belief that personality is relatively fixed (Poortinga & Van Hebert, 2001). Personality traits, the elements of personality, have been referred to as "relatively enduring styles of thinking, feeling and acting" (McCrae & Costa, 1997, p. 509). When these traits are grouped into superordinate categories, they thereby

provide structure to the morass of variables subsumed under personality. Personality theories aim to organize the elements of personality in a meaningful way.

1.3.1. Models of personality

At present, there are several theories and models of personality, which include but are not limited to the Big Two, Five-factor Theory, 16 Factor Model, traits-personal concerns-life narratives model, and the Cognitive-Affective Personality System (Digman, 1990; Funder, 2001; McCrae, 2011). Personality theories stem from humanistic, social-cognitive, trait, evolutionary, and behavioural schools of thought and each field has been credited with merits and faced criticisms (Funder, 2001). The choice for this research was the Five-Factor Theory and accompanying Big Five model, which is comprised of the dimensions of Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (McCrae and John, 1992), as well as the HEXACO model which focuses mainly on the Honesty-Humility Factor (Ashton & Lee, 2006).

1.3.1.1. Big Five model and research

A comprehensive review by Digman (1990) has shown that past researchers have been finding support for, and advocating for a five-factor model since 1932. Furthermore, the five-factor model has been supported in use across several cultural contexts, measurement tools and raters (McCrae & Costa, 1987, 1997). Although scholars have found that personality goes beyond Five-Factor theory, there is agreement about the utility of this theory and model (Funder, 2001; Paunonen & Jackson, 2000). A brief description of each of the five-factors is provided below.

The personality factor of Extraversion, also known as Surgency, refers to the tendency towards being externally oriented (Goldberg, 1990; John & Srivastava, 1999; McCrae & John, 1992). The positive pole of this variable has been described using adjectives such as sociable, adventurous, uninhibited, and active, while the negative pole of this variable has been described using adjectives such as reserved, shy, and untalkative (Goldberg, 1990; John & Srivastava, 1999). The personality factor of Neuroticism is characterized by varying levels of anxiety and panic (McCrae & John, 1992). At the positively valenced end (i.e., Emotional Stability), individuals can maintain composure irrespective of their situation and some associated qualities are stable, autonomous, and calm (Goldberg, 1990; McCrae & John, 1992; John & Srivastava, 1999). When valenced negatively, individuals can be described using adjectives such as self-critical, touchy, nervous, and high-strung (Goldberg, 1990; John & Srivastava, 1999).

Agreeableness has been referred to as the personality factor which encompasses aspects linked with harmonious relations between individuals (Digman, 1990).When weighted positively, agreeable individuals are characterized by a constellation of highly favourable descriptors such as sensitive, cooperative, trusting, and just (Goldberg, 1990; John & Srivastava, 1999). At the opposite extreme, while disagreeable individuals can be labelled as fault-finding, suspicious, and insincere (Goldberg, 1990; John & Srivastava, 1999). Individuals higher on Conscientiousness, a factor also known as Will, can be described using qualities such as persistent, responsible, thorough, and painstaking (Goldberg, 1990; John & Srivastava, 1999). In contrast, when framed negatively, individuals can be referred to by descriptors such as foolhardy, careless, and erratic (Goldberg, 1990; John & Srivastava, 1999).

Openness to Experience has also been referred to as Intellect, and has a contentious history in the personality literature (Digman, 1990; McCrae & John, 1992). When framed

positively, those characterized as open to experience are associated with descriptors such as insightful, worldly, and cultured (Goldberg, 1990; John & Srivastava, 1999). When framed negatively i.e., closed off to experience, individuals who score lower on Openness to Experience can be described by qualities such as unreflective, ignorant, and shallow (Goldberg, 1990; John & Srivastava, 1999).

Big Five personality has been examined in relation to ethnic relations with a specific lens on prejudice. In one study, the variables of emotional stability (i.e., low Neuroticism, Openness to experience, and Agreeableness) all had negative links with generalized prejudice (Ekehammer, Akrami, Gylie, & Zakrisson, 2004). However, with regards to a specific form of culturally oriented prejudice (i.e., racism), Openness to experience and Agreeableness were negatively correlated to SDO, but Conscientiousness had a positive link. In another study, Ekehammer and Akrami (2007) found that Agreeableness, Extraversion and Openness to experience as well as facets of Neuroticism and Conscientiousness were negatively linked with prejudice. Findings from meta-analytic research in this area indicate a trend where only lower Openness to experience and lower Agreeableness link with greater prejudice, and that this effect is tempered by other ideological variables, such as social dominance orientation (Sibley & Duckitt, 2008)

Another research area has examined the role of Big Five personality in overseas communication and adjustment. Ward, Leong, and Low (2004) have investigated how personality variables are associated with sojourner adjustment. The results from that study showed that high Agreeableness and Conscientiousness, and low Neuroticism were related to better adaptation, as well as adjustment. Each of the Big Five variables has also positively been associated with workplace productivity ratings and a willingness to continue working as an expatriate (Caligiuri, 2000).

The personality-culture connection has also been explored. First, culture has been found to account for a sizeable portion of the variability in personality variables (Poortinga & Van Hemert, 2001). Furthermore, it is asserted that though there are universal traits such as the Big Five, some aspects of personality may be culture-bound (Poortinga & Hemert, 2001). Hofstede and McCrae (2004) have presented evidence which suggests that cultural dimensions such as uncertainty avoidance could predict variance in personality, and suggested that personality variables may shape cultural dimensions. Whether different cultures could have different personality trait profiles has also been explored (Allik & McCrae, 2004), and has provided some illuminating insights. Using data from 36 different countries, Allik and McCrae (2004) have mapped personality differences based on where individuals live, and found that in some Western as opposed to Eastern countries, the national culture was found to be more extraverted and open to experience, but less agreeable. Additionally, their evidence also suggested that two cultures in close proximity may not necessarily have similar cultural profiles. Taken together, the evidence suggests a complex personality-culture link.

1.3.1.1.1. Big Five and intercultural sensitivity

Despite the ample literature about a host of cultural variables and Big Five personality, the scarcity of specific studies exploring the relationship between the Big Five and intercultural sensitivity reflects a significant gap in the literature. Unpublished research by Yan and Zeng (2010) using a sample of Chinese participants has found that intercultural sensitivity is linked to positively to all the Big Five, save for Neuroticism to which it is linked negatively. With this being said, indirect evidence for the nature of associations can be found by examining each of the Big Five variables in isolation. In terms of Openness to experience, a positive link with intercultural sensitivity can be expected for the following reasons. First, in a four-factor model of

intercultural sensitivity, Open-mindedness is a factor (Bhawuk & Brislin, 1992), and this is similar to Openness to experience. Additionally, research in the area of multiculturalism has suggested that Openness to the other is a virtue necessary for embracing cultural differences (Fowers & Davidov, 2006). Furthermore, it is believed that Openness to others is tied into knowledge about and behaviour towards others, and these ideas are similar to components of intercultural competence such as intercultural adroitness and intercultural awareness (Chen & Starosta, 1996; Fowers & Davidov, 2006).

Similar to the link with Openness, it can be expected that Conscientiousness and intercultural sensitivity will have a positive link based on the reasons below. Specifically, consideration (i.e., showing care and concern in dealings with those who are culturally different; Foronda, 2008), is conceptually similar to the Big Five personality factor of Conscientiousness. Conscientiousness is characterized by qualities such as dependability, planned action, and responsibility (John & Srivastava, 1999). The similarity between intercultural sensitivity and Conscientiousness is that they both appear to share a core value (i.e., concern and responsible action) (Foronda, 2008; John & Srivastava, 1999).

With regards to Extraversion, intercultural sensitivity could be positively related for the following reasons. To expand, it has been found that Extraversion is a building block of intercultural competence (i.e., interaction engagement; Bird, Mendenhall, Stevens & Oddou, 2010). Furthermore, not only is interaction engagement a component of competence, it has also been identified as an element in the five-factor model of intercultural sensitivity (Chen & Starosta, 2000). Other researchers have found connections between Extraversion and variables such as an enjoyment of interactions with others, the skill of perspective-taking, and lack of insecurity in unfamiliar contexts (Smernou & Lautenschlager, 1991). Given that interaction

engagement and perspective taking have been seen as being at the core of intercultural sensitivity (Chen & Starosta, 1996), it is plausible that Extraversion will be positively related to intercultural sensitivity.

As for Agreeableness, it can be expected that intercultural sensitivity will be highly related, as Agreeableness has been positively implicated with the personal value of benevolence (Roccas, Sajiv, Schwartz, & Knafo, 2002). This finding is meaningful, given that benevolence has been described as a prerequisite for positive interactions, and this value has parallels with concepts such as empathy and non-judgment, which are seen as key to intercultural sensitivity (Chen & Starosta, 1997). Additionally, given that Agreeableness is classified by such descriptors as warm, uncritical, understanding, and accommodating (Goldman, 1990), it is reasonable to expect that Agreeableness is a likely correlate of intercultural sensitivity, which encompasses ideas such as appreciation and respect for different cultures and interaction involvement (Chen & Starosta, 2000).

In contrast with the other four-factors of the Big Five, Neuroticism can be expected to have an inverse association with intercultural sensitivity, because Neuroticism has been linked with variables such as distancing of the self from social situations and poor adjustment (Smernou & Lautenschlager, 1991). Other research has also linked Neuroticism with the propensity to face a surplus of adverse life events (Magnus, Diener, Fujita, & Pavot, 1993), which in turn could make people aversive and cautious. A reasonable supposition would be to expect that sensitivity towards individuals who are foreign in nature from oneself (Chen & Starosta, 1997) would be inversely associated with Neuroticism, a personality variable associated with such concepts as temperamental, instability and anxiety (Goldman, 1990).

Research on cultural intelligence—the ability of an individual to be effective in situations of cultural diversity –could also offer meaningful insights into the intercultural sensitivity-Big Five link. The culture quotient (CQ) model of cultural intelligence has four components: Metacognitive, Behavioural, Cognitive and Motivational (Ang et al., 2006; Leung et al., 2014), and these components appear to be similar to the three dimensions of intercultural competence delineated by Chen and Starosta (1996) This cultural intelligence model has been classified as a model of intercultural competence (Leung et al., 2014), and it is therefore reasonable to expect that there will be convergent validity between personality variables and intercultural sensitivity, which is a component of intercultural competence (Chen & Starosta, 2000).

The cultural intelligence factor which appears closest to intercultural sensitivity in content is Motivational CQ – the "magnitude and direction of energy directed toward learning about and functioning in cross-cultural situations" (Ang et al., 2006, p. 101). Motivational CQ was positively associated with all the Big Five. It is important to note that the positively valenced end of Neuroticism (i.e., Emotional Stability; Goldberg, 1990) was used in this study. If intercultural sensitivity is indeed similar to Motivational CQ, then similar findings should arise when exploring links with the Big Five. Although the relationship between each of the Big Five variables and intercultural sensitivity has been conjectured, given the dearth of literature in this area, it is possible that testing may lead to unexpected results.

1.3.1.2. HEXACO model and research

While the Big Five model of personality has garnered tremendous support, as described earlier, it has not been accepted without challenge (e.g., Block, 1995; Paunonen & Jackson, 2000). As described by Block (2000), the field of personality research is dynamic, and as advances arise, so too do models of personality change, and a rigid adherence to the Big Five is

limiting. The research of Ashton and Lee (2007) has helped propel the field of personality research forward with the introduction of the HEXACO model of personality. The HEXACO model is comprised of the following factors: Honesty-Humility, Agreeableness (versus Anger), Emotionality, Extraversion, Conscientiousness, and Openness to Experience. As can be seen, several of these factors overlap with the Big Five. However, notable differences are that the Agreeableness and Emotionality factors do not map exactly onto the Agreeableness and Neuroticism factors of the Big Five, and that Honesty-Humility represents a new concept.

Briefly described, the HEXACO factors can be defined in the following way. Honesty-Humility refers to a composite of sincerity, fairness, greed avoidance and modesty (Ashton, Lee, & DeVries, 2014). Agreeableness (versus Anger), refers to a composite of forgivingness, gentleness, flexibility, and patience. Emotionality refers to a composite of fearfulness, sentimentality, dependence, and anxiety. The three-factors described above all are seen as representative of philanthropic tendencies (Ashton & Lee, 2007; Ashton et al., 2014). The remaining three-factors of the HEXACO – Extraversion, Conscientiousness, and Openness to Experience, represent self-motivated tendencies (Ashton & Lee, 2007). Extraversion refers to the tendency to be outgoing and is characterized by terms such as sociability and liveliness (Ashton & Lee, 2007). Conscientiousness refers to the tendency to be driven and is defined by terms such as diligence and industriousness. Openness to Experience refers to the tendency to have creative ideas and is described by terms such as aesthetic appreciation and intellectual curiosity. In terms of similarities with the Big Five, Extraversion, Openness to Experience and Conscientiousness, as described by the HEXACO, correspond highly with their respective Big Five-factors (Ashton et al., 2014).

For the purpose of this investigation, a decision was made to examine only Honesty-Humility in addition to the Big Five-factors. The rationale behind this choice is that the Honesty-Humility factor provides an edge in terms of predictive power over the Big Five (Ashton & Lee, 2007). Given that the other five-factors of the HEXACO map reasonably well onto the Big Five, either the Big Five or the HEXACO can be used to study those factors. Evidence has shown that Honesty-Humility is positively correlated with the tendency to value acting in a prosocial manner (Hilbig & Zettler, 2009). Additionally, in terms of its link to well-being, Honesty-Humility is associated positively with eudaimonic well-being (i.e., with the welfare of those around onself; Aghababaei, & Arji, 2014). There is an inverse relationship between Honesty-Humility scores and the Dark Triad personality variables of Narcissism, Psychopathy, and Machiavellianism (Lee & Ashton, 2014). Evidence shows that lower levels of Honesty-Humility are linked with socially aversive personality variables.

Several lines of research have explored the nature of the relationship between the Honesty-Humility factor of the HEXACO and culture. In terms of religiousness, evidence from American and Iranian participants has shown that being religious is associated with higher scores on Honesty-Humility (Aghababaei, Wasserman, & Nannini, 2014). Research using Korean, Canadian and American samples has shown that across cultures, Honesty-Humility is associated negatively with values that are self-oriented, and negatively with social dominance orientation (Lee, Ashton, Ogunfowora, Bourdage, & Shin, 2010). Honesty-Humility may also have positive implications for promotion of cross-cultural contact through means of a reduced preference for group superiority (Sturmer et al., 2013).

Similar with the Big-Five, there is a paucity of research connecting the Honesty-Humility factor with intercultural sensitivity. However, it is possible to infer the nature of the relationship

between these variables by examining how Honesty-Humility links with other relevant variables. To expand, the nature of engaging in an intercultural interaction has been said to require humility, and this is a precursor to feelings of intercultural sensitivity (Bhawuk, Sakuda, & Munusamy, 2008). Similarly, according to theory, acting sincerely is seen as a plus in terms of intercultural sensitivity (Bhawuk et al., 2008), and sincerity is known to be a characteristic associated with Honesty-Humility (Ashton et al., 2014). Humility has also been found to link with relationship quality, and this has been attributed to humility being a sum of open-minded, empathetic, and respectful views (Peters, Rowat, & Johnson, 2011), and these qualities have been used to describe intercultural sensitivity as well (Chen & Starosta, 2000). Given these findings, it is reasonable to expect that intercultural sensitivity and Honesty-Humility should be linked positively. Higher Honesty-Humility scores should be linked with higher intercultural sensitivity scores.

1.4. Emotional intelligence

Emotional intelligence (EI), is an adapted type of multiple intelligence (Pfeiffer, 2000), which has been studied since the end of the 20th century (Fernandez-Berrocal & Extremera, 2006). Furthermore, it is only recently that the interface between emotion and intelligence has come to the forefront (Cherniss, 2000). Intelligence is an extensively studied construct which has been described in two differing ways (Weinberg, 1989). One school of thought supports the idea of a global intelligence with several subcomponents. An example of a theory supporting this view is the Sternberg Triarchic Theory of Intelligence, which describes intelligence as being made of three forms: practical, analytical, and creative (Tigner, & Tigner, 2000). In contrast, another perspective supports the existence of multiple unique intelligences (Weinberg, 1989). Gardner (1996), a proponent of multiple intelligences, has theorized the existence of seven or

more distinct forms of intelligence, including types such as Naturalistic and Linguistic Intelligence. The intelligence studied in this research is emotional intelligence.

1.4.1. Two EI models and where EI stands

An early definition of EI describes the construct as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey & Meyer, 1989, p.189). This definition refers to a form of EI known as Ability or Information Processing EI (Petrides & Furnham, 2000). Research by Mayer, Caruso and Salovey (1999) has corroborated that this form of EI can be classified as a classic intelligence, given that it fits with a set of requirements used to classify intelligence. According to an Information Processing EI perspective, EI does not refer to a dispositional variable, but rather to one of ability (Mayer, Salovey, & Caruso, 2008). In this respect, EI models which are inclusive of other elements such as appraisals of ability have been conceived as mixed models. One mixed model to which Mayer et al. (2008) refer has been classified as trait EI (Petrides & Furnham, 2000). According to a Trait EI perspective, EI refers to a personality variable inclusive of traits such as self-esteem and adaptability, and it concerns how individuals perceive their own emotional skills (Petrides & Furnham, 2000, 2001).

The concept of EI has been challenged due to a variety of methodological and theoretical concerns (Pfeiffer, 2001). One critique is that EI is defined in a broad, overly inclusive manner that tries to find a common thread between distinct elements such as planning, empathy, creative thinking, and the direction of attention (Locke, 2005). Another concern has been that EI has been prescribed too widely as a beneficial tool without enough assessment of its psychometric rigor (Landy, 2005). However, there are a host of reasons for why there is heightened interest in learning more about emotional intelligence. The desire to become more in tune with emotions

and to use them to advantage in work and other domains serves as one motivator (Fernandez-Berrocal & Extremera, 2006). The publication count of articles in this area has been steadily climbing since the creation of the EI construct and this is also testament to the appeal of the construct.

1.4.2. Notable EI findings

For the purpose of this investigation, Trait EI is used in lieu of Ability EI. Hereafter, when the term EI is used, it should be considered as synonymous with Trait EI unless otherwise stated. In terms of the personality-EI link, there is an inverse association with Neuroticism and a positive link with Openness, Agreeableness, Extraversion and Conscientiousness when EI is high (Arteche et al., 2008; Austin, Saklofske, Smith, & Tohver, 2014; Van der Linden, Tsaousis, & Petrides, 2012). Furthermore, quality of life (Palmer, Donaldson, & Stough, 2002; Austin, Saklofske, & Egan, 2005) and happiness (Furnham & Petrides, 2003) have been linked with increased EI. Contrarily, lower EI has been acknowledged as a potential precursor for mental health ailments (Petrides, Perez-Gonzales, & Furnham, 2007).

Keeping with the context of this research, there have been some studies that have explored EI in relation to culture. The construct of EI has been tested in various cultures, and psychometric evidence suggests that the construct is culture-bound (Sharma, Deller, Biswal, & Bandal, 2009). To elaborate, when a German and Indian sample were tested, different factor structures were extracted which suggests that each country has a unique interpretation of EI. Similarly, the British factor structure differed from Chinese factor structure of EI in another study (Gokcen, Furnham, Mavroveli, & Petrides, 2014).

Schmitz and Schmitz (2012) have found that being more emotionally intelligent can assist in adjustment to a different culture. Specifically, elevated levels of EI have been associated with the desire to either choose assimilation into the host culture or integration of both the home and host cultures as acculturation strategies. Conversely, depressed levels of EI were associated with the desire to choose separation from host culture or marginalization (i.e., neither a preference for home culture nor for host culture as acculturation strategies). Other research suggests that EI may serve as a valuable tool for those engaging in intercultural encounters, such as study abroad programs (Gullekson & Tucker, 2013). To elaborate, higher EI levels were predictive of elevated awareness of international affairs, decreased ethnocentrism, and decreased tendencies to be apprehensive in intercultural encounters. As with adjustment to a different culture or engaging in a study abroad program, EI also has been found to aid with adjustment to expatriate work assignments (Gabel, Dolan & Cerdin, 2005).

The association of emotional intelligence to multicultural personality variables has also been examined. Emotional intelligence at the total score and subscale score level has been strongly linked with three of five aspects of multicultural personality: Cultural Empathy, Open-Mindedness, Emotional Stability (Ponterotto, Ruckdeschel, Joseph, Tennenbaum, & Bruno, 2011). In the same study, over 20% of the variance in emotional intelligence had been accounted for by the components of multicultural personality. This evidence suggests that EI and multiculturalism are greatly related, which in turn could imply that intercultural sensitivity will also be related to EI. The reason for believing this is because the Multicultural Personality Questionnaire has been used to measure intercultural competence (Leung et al., 2014), and as such is indirectly linked with intercultural sensitivity.

There is paucity of literature directly linking emotional intelligence with intercultural sensitivity. However, it is plausible to expect that the two would have convergent validity given that there is overlap in the core of these constructs. To expand, intercultural sensitivity has been linked to self-monitoring and empathy (Chen & Starosta, 1997), and these characteristics are important in emotional intelligence as well (Petrides, 2010; Ponterotto et al., 2011). Conrad (2006) has demonstrated that trait emotional intelligence was positively correlated with intercultural sensitivity, and Saberi (2012) has shown that ability emotional intelligence can foster intercultural sensitivity. The intercultural sensitivity measure used for both these studies was a more general measure of intercultural sensitivity/competence i.e., the IDI. It should be noted that neither the Conrad (2006) nor the Saberi (2012) study directly compared trait emotional intelligence to a specific measure of intercultural sensitivity e.g., the ISS. As such, the direct trait EI-intercultural sensitivity link remains unexplored. Given the research outlined, it is reasonable to predict that this positive link between EI and intercultural sensitivity will be corroborated in replication studies.

1.5. Social dominance orientation

Social Dominance Orientation (SDO) refers to the way people feel that groups should be structured (Pratto, Sidanius, Stallworth, & Malle, 1994). Those who endorse an SDO ideology prefer a hierarchical structure in which the in-group reigns superior and out-groups are derogated. Furthermore, for those who follow an SDO ideology, inequality is desired and myths supporting group categorization are endorsed (Pratto, Sidanius, & Levin, 2006). Among the beliefs supported by those high on SDO is the idea that certain cultural groups are less deserving and as a consequence are outranked (Pratto et al., 2000). SDO as a construct is developed from a multi-level perspective in which personality and context are seen to exert influence in the

facilitation and propagation of group-based discrimination and oppression (Sidanius, Pratto, Van Laar, & Levin, 2004; Pratto et al., 2006). Originally, this construct was considered as being comprised of one dimension. However, recent factor analytic and theoretical evidence has supported a two dimensional view of this construct with the dimensions of egalitarianism and dominance (Ho et al., 2012).

1.5.1. Notable SDO findings

The study of SDO has been acknowledged as a highly fruitful research area, given its relevance in areas such as politics and group dynamics (Ho et al., 2012). One finding is that increases in social dominance orientation have been connected with decreases in prosocial variables such as empathy, communality, and altruism (Pratto et al., 1994). Additionally, the SDO ideology is contrarian to the values of honesty and equal harmonious international relations (Heaven & Connors, 2001). Evidence has also suggested that believing the world is a hostile and competitive place has been positively linked to SDO (Sibley, Wilson, & Duckitt, 2007). Viewing the world as a competitive place was predictive of increased SDO ratings (Sibley et al., 2007). In addition to corroborating the finding that environments that challenge the position of a dominant group exacerbate SDO, Morrison and Ybarra (2008) have shown that this effect is dependent on how strongly connected a person is to the dominant ethnic-group.

Another line of research has explored the interrelationships between personality variables and SDO. High SDO has been implicated with lower levels of Openness, lower Agreeableness and lower facet level Extraversion (Akrami & Ekehammer, 2006; Ekehammer et al., 2004; Heaven & Bucci, 2001). Furthermore, on self-rating tasks, those with increased SDO have characterized themselves as being lower on prosocial variables such as trust and sympathy (Heaven & Bucci, 2001). In terms of darker personality traits, increased SDO has been

associated with increased Dark Triad traits (i.e., Machiavellianism, Narcissism, and Psychopathy), and SDO and the Dark Triad have been found to share a sizable amount of variance; (Hodson, Hogg & MacInnis, 2009; Jones & Figueredo, 2013).

Just as studies have examined the personality-SDO link, so too has SDO been studied in relation to attitudes towards different cultural groups. First, in a multi-ethnic pluralistic context, hierarchical grouping and ranking of members may occur (Snellman & Ekehammer, 2005). Evidence has suggested that such grouping is interrelated with SDO. The trend which can be seen from the evidence reflects traditional SDO principles (Pratto et al., 2004), where groups to which an individual belong are valued, whereas other groups are viewed in an adverse manner.

In a multi-sample study of the two dimensions of SDO, evidence suggested that the dominance dimension of SDO was linked with and predicted the support for nationalism, immigrant persecution, old fashioned racism, and old fashioned prejudice (Ho et al., 2012). On the other hand, the same study also found that the egalitarianism dimension of SDO was predictive of and related to symbolic racism, denial of ethnic discrimination, and opposition of racial policy. Researchers studying uni-dimensional social dominance orientation have corroborated that SDO is connected with and predictive of blatant prejudice and discrimination. Those with high SDO were more likely to outwardly endorse negative views about other ethnic and racial groups (Hiel & Mervielde, 2005; Ktiely, Sidanius, & Levin, 2011). Other researchers have corroborated findings that opposition towards immigrants and ethnically different others is connected to SDO (Asbrock, Christ, Duckitt, & Sibley, 2012; Thomsen, Green, & Sidanius, 2008). Additionally, for those endorsing SDO, immigrants were looked unfavorably upon to the extent to which they wanted to become a part of dominant culture (Thomsen et al., 2008).

Another line of research has explored whether the adverse outcomes such as old fashioned racism associated with SDO can be overcome. One strategy which has been shown to dampen the influence of SDO on prejudice is intergroup contact (Dhont, Hiel, & Hewstone, 2014). The use of intergroup contact to work towards positive ends such as reduced prejudice is referred to as the Contact Hypothesis (Amir, 1969). Specifically, the tenets behind this hypothesis are that when the conditions are right – those in contact are of the same status, the contact is validated by figures of authority, people get highly involved in and derive value from the contact, the contact leads to a mutually beneficial outcome— the result could be the reduction of prejudice and enhanced ethnic interactions.

Following this logic, one study involved Belgian students interacting with Morrocan students on cooperative group-based activities (Dhont et al., 2014). In support of a contact hypothesis view, evidence indicated that the better the quality of contact between these students from different ethnic groups, the lower the SDO score and prejudice levels of the Belgian students (Dhont et al., 2014). Another strategy has been to emphasize the person over the group to reduce the animosity felt by those high in SDO towards immigrants (Danso, Sedlovskaya, & Suanda, 2007). In a series of studies, these researchers found that when participants who strongly endorse an SDO ideology focus on the unique characteristics of others and about not their own group can lead to weaker prejudice.

Unlike the literature about culture and SDO, the intercultural sensitivity-SDO link has not been researched in detail. However, the construct of ethnocentrism – a strong innate preference for the in-group - (Hammond &Axelrod, 2006), has been positively correlated with aspects of SDO and has been found to predict a portion of the variability in SDO (Jost & Thompson, 2000). Past research has linked higher levels of ethnocentrism with lower levels of intercultural

sensitivity (Chen, 2010; Dong, Day & Collaco, 2008). Furthermore, in models such as the Developmental Model of Intercultural Sensitivity (DMIS), the lowest stages of intercultural sensitivity are associated with ethnocentric views (Hammer et al., 2003). This theoretical and empirical evidence suggests that being higher on intercultural sensitivity is incompatible with being highly ethnocentric. Thus, it is conceivable that the association between intercultural sensitivity and ethnocentrism could be extrapolated to SDO and the same negative relationship would emerge.

Also, because SDO has been associated negatively with empathic concern (Sidanius et al., 2013), and empathy is seen as vital to intercultural sensitivity (Chen & Starosta, 1997), it is reasonable to expect that the SDO-intercultural sensitivity link should be negative. Direct evidence of negative links between intercultural sensitivity and social dominance orientation has also been found (Briggs, 2002; Palmer, 2007). Taken together, the evidence suggests that future studies should be able to replicate a negative correlation between intercultural sensitivity and SDO.

1.6. Current Research

This research study was designed in order to assess the psychometric properties of a revised form of the Intercultural Sensitivity Scale (ISS; Chen & Starosta, 2000). The ISS was selected as the choice measure of intercultural sensitivity due to assertions that the measure is both useful and ecologically valid (Matsumoto & Hwang, 2013; Fritz et al., 2002), but it could serve as a catalyst to develop a more psychometrically sound measure of intercultural sensitivity with enhanced practical utility (Fritz et al, 2002). Piecing together the building blocks of a scale or modifying existing scales is a challenging endeavor which requires extensive thought, progresses stage-wise, and frequent revisiting (Hinkin, Tracy, & Enz, 1997). Following this logic, the first

step taken was to re-examine the ISS to ascertain whether modification was necessary. Several past researchers (Fritz, Mollenberg, & Chen, 2002; Fritz, Graf, Hentze, Mollenberg & Chen, 2005; Peng, 2006; Tamam, 2010) have assessed the psychometric properties of the ISS both as primary and secondary aims of research.

In their seminal paper assessing the robustness of the ISS, Chen and Starosta (2000) found that the scale had good full-scale reliability on two separate occasions i.e., α = .86 and .88. In terms of construct validity, factor analytic results suggested that the slightly less than 40% of the common variance was accounted for by the ISS presumed five-factors of Interaction Engagement, Respect for Cultural Differences, Interaction Confidence, Interaction Enjoyment and Interaction Attentiveness (Chen & Starosta, 2000). Immediately following the development of the ISS, the psychometric properties of that scale were assessed in a German sample (Fritz et al., 2002). The five-factor structure was corroborated in that study, but the subscale reliabilities of the scale were cause for concern. Of the subscales, three had reliabilities of .69 and above, whereas the remaining two subscales – Interaction Enjoyment and Interaction Attentiveness – of three items each had reliabilities of .59 and .58, respectively.

Evidence from a smaller German sample failed to support the construct validity of the ISS (Fritz et al., 2005). Interaction Attentiveness was identified again as having poor subscale reliability. The lower subscale reliabilities for Interaction Enjoyment and Interaction Attentiveness have been a recurring finding (Peng, 2006; Tamam, 2010), which is cause for concern. Additionally, the psychometric functionality of the ISS across cultural contexts is suspect. A case in point comes from research by Peng (2006) who found that in a Chinese sample, barring Interaction Confidence, all the subscales had reliabilities of α = .48-.60, these subscales having anywhere from 3 to 7 items. (Peng, 2006). Similarly, in a Malaysian sample,

the five-factor model was not replicated suggesting that the ISS may not be suitable for all cultural contexts (Tamam, 2010).

In addition to exploring previous confirmatory factor analytic/psychometric assessment studies, a preliminary step taken by the present researcher involved conducting an a priori examination of the ISS in the context of a graduate-level course on survey design and test construction. Some of the insights gained through discussion and factor sorting tasks were that there was considerable factor overlap of items, ambiguous wording, and recommendations to remove some existing items and create new items to ameliorate the scale (Balakrishnan, 2013). These qualitative concerns were substantiated through a confirmatory factor analytic study that found poor fit for the five-factor model at both the full-scale and subscale level (Balakrishnan, 2013). Taken together, the evidence offered strong support for the premise that scale modification would be a meaningful step to take.

1.6.1. Preliminary Steps for Test Revision

As a follow up to the decision of proceeding with scale modification of the ISS, the next step involved creating additional items or questions. At present, a general test construction guideline is to create a surplus of questions that can be narrowed down to those that are the most representative of the factors measured (Hinkin, Tracy, & Enz, 1997). Following this logic, 14 new questions were written by the researcher to eliminate the shortcomings of the original scale. Seven of these items were believed to be reflective of Interaction Enjoyment and seven for Interaction Attentiveness. For the purpose of scale construction, those two factor subscales were targeted because of the consistent finding of low reliability. While these questions were expected to pull for those general content areas, it was acknowledged that the factors extracted in subsequent analysis may not exactly mirror those found by Chen and Starosta (2000).

The content of the new questions was derived from a number of sources. The first source was the research literature which was thoroughly examined. Additionally, other researchers were consulted individually and in focus groups to gain insights. Lastly, measures of intercultural sensitivity, intercultural competence, and related constructs were referred to as exemplars. Some of the measures referred to were the Intercultural Sensitivity Inventory (ICSI; Bhawuk & Brislin, 1992), the Multicultural Experiences Questionnaire (MEXQ; Narvaez & Hill, 2010), and the Cross-Cultural Sensitivity Scale (Preugger & Rogers, 1994). During the process of creating questions, best practices of question formation such as keeping language simple, asking straightforward questions, and ensuring that questions are in line with the content tested were followed whenever possible (Krosnick & Presser, 2010).

In addition to developing new questions, a new organization was given to the Revised Intercultural Sensitivity Scale (RISS). As per question placement principles delineated by Krosnick and Presser (2010), the question order flowed from being broad to specific, and probative questions were saved until the middle to end of the questionnaire whenever possible. Furthermore, the added questions to the RISS were all closed-ended in nature (i.e., limited number of response options) and followed a five-point Likert scale format. The rationale behind this decision is that this is how the original ISS was structured. Additionally, closed-ended questions are advantageous in that they are less costly and less messy in terms of data analysis (Krosnick & Presser, 2010). Given that open-ended questions are said to add an extra layer of depth (Krosnick & Presser, 2010), two open-ended questions about intercultural sensitivity, which are not part of the RISS, were added during the questionnaire administration process. However, the examination of those qualitative findings is beyond the scope of this investigation.

1.6.2. Choice of data analytic strategy: CFA or EFA?

Following the writing and organization of scale items, the next step concerns assessment of how these items would work in the context of the new scale. This research study is designed to address the step of testing the merit of the additional questions to the RISS scale as a whole, and subscales in specific. A decision that needed to be made prior to data analysis concerning which factor analytic technique would be used. The decision involved choosing whether the revised measure would be assessed using an exploratory factor analysis (EFA) or confirmatory factor analysis (CFA). EFA is a procedure where the elements underlying a construct are organized in a way that the most suitable factor structure is extracted (Suhr, 2006). On the other hand, CFA is a procedure where both theory and past literature point to a potential factor structure, and this structure is tested to see whether it has validity (Suhr, 2006). After thorough examination of the items and consideration of the study design, it was decided that EFA would be used

To explain, although the RISS draws heavily from the ISS, the resulting scale can be considered as a new product. Scholars have suggested that when working with scales in the developmental stages, the use of EFA is preferred (Hurley et al., 1997). Additionally, there are still unanswered questions in terms of intercultural sensitivity such as who are people sensitive toward, whether sensitivity is trait-based, and how to untangle this construct from other constructs. Thus, due to construct malleability, a rigid adherence to the five-factor structure of the ISS may be limiting. Furthermore, the five-factor structure of the ISS has been met with criticism (Fritz et al., 2005; Tamam, 2010), and the EFA method has been recommended when trying to evaluate why models work poorly (Schmitt, 2011).

Along with the decision to make use of EFA, a parallel decision was to decide to use oblique rotation. The term *oblique rotation* refers to a way of transforming the factor analytic data that

allows for the extracted factors to have overlap (Fabrigar,Wegener, MacCallum & Strahan, 1999). The other main rotational strategy is *orthogonal rotation*, which refers to a way of transforming the factor analytic data in which the factors are kept uncorrelated (Fabrigar et al.,1999). Past research has repeatedly suggested that the factors of intercultural sensitivity are interconnected as evidenced by poor subscale discriminant validity (Fritz et al., 2003; 2005). Furthermore, oblique rotation has been recommended as the method of choice due to claims that this technique provides results with more ecological validity, more data output, and psychometric rigor (Fabrigar, 1999; Schmitt, 2011). Oblique rotation was chosen for the reasons above. Presented in the subsections above is an overview of some major decisions and steps taken in the development stage of this study.

1.6.3. Research aims and hypotheses

Given that an understanding of the steps taken to design this study has been established, the aims of this research can be explained. This study had multiple goals which included assessing the reliability of the RISS at a full-scale and subscale level, examining test-retest reliability, assessing the influence of social desirability on item responses, and finding out whether the scale would show convergent validity. Whether the scale is reliable as a whole and at the subscale level, as well as whether it is truly tapping into the construct of intercultural sensitivity, will be addressed. Furthermore, because EI, the Big Five, Honesty-Humility and SDO were all shown to have connections with research on culture, and some have been studied directly in relation with intercultural sensitivity, a modified scale of intercultural sensitivity should replicate past findings. Positive links between intercultural sensitivity and the Big Five variables, Honesty-Humility and EI, as well as a negative link between intercultural sensitivity and SDO, should be seen. In addition, if intercultural sensitivity is trait-based, then the scores should not fluctuate

greatly over time. Furthermore, if participant responses are assumed to be free of bias, then there should a negligible or zero relationship with social desirability. The research hypotheses that were tested in a two-phase questionnaire study are as follows.

H1: The RISS will be reliable at the full and subscale levels.

H2A: The final best-fitting structure will be the five-factor solution proposed by Chen and Starosta (2000), as tested using EFA.

H2B: The final model will be an alternative solution consistent with past literature.

H3: Intercultural Sensitivity scores as measured by the RISS will be highly consistent between two administrations (i.e., test-retest reliability will be high).

H4: Social desirability bias will not be expected. Intercultural Sensitivity, as measured by the RISS, will not be highly correlated with Social Desirability as measured using the Measure of Social Desirability (Shultz & Chavez, 1994).

H5A): Intercultural Sensitivity at the full and subscale level as measured by the RISS will have convergent validity with the Big Five (i.e., Neuroticism, Conscientiousness, Extraversion, Agreeableness and the Imagination/Intellect facet of Openness) as measured by the Mini-IPIP (Donnellan, Oswald, Lucas, & Baird, 2006) and Honesty-Humility as measured by the 60-item version of the HEXACO-PI-R- Honesty-Humility Subscale (Lee & Ashton, 2009). Specifically,

i. Neuroticism will be negatively correlated with intercultural sensitivity

ii. Imagination-Intellect (a proxy for Openness to Experience) will be positively correlated with intercultural sensitivity.

iii. Agreeableness will be positively correlated with intercultural sensitivity.

iv. Conscientiousness will be positively correlated with intercultural sensitivity.

v. Extraversion will be positively correlated with intercultural sensitivity.

vi. Honesty-Humility will be positively correlated with intercultural sensitivity.

H5B) Intercultural Sensitivity at the full and subscale level, as measured by the RISS, will have convergent validity with emotional intelligence as measured using the Brief Emotional Intelligence Scale (Davies, Lane, Davenport, & Scott, 2010). Positive correlations are expected.

H5C) Intercultural Sensitivity at the full and subscale level, as measured by the RISS, will have convergent validity with Social Dominance Orientation, as measured using the Social Dominance Orientation Scale (Pratto, Sidanius, Stallworth, & Malle, 1994). Negative correlations are expected.

CHAPTER 2: METHOD

2. Method

2.1. Participants

The number of participants required to assess the correlational hypotheses for this research has been estimated using G*Power 3.1.9.2. (Faul, Erdfelder, Buchner, & Lang, 2009). It was anticipated that moderate directional correlations would be found between intercultural sensitivity and the other key study variables; i.e., *r* values around approximately .3. Using an alpha value of .05, a power of .90 and an effect size of .3 it was determined that a sample size of 109 participants would be sufficient. In terms of the number of participants required for factor analyses, evidence suggests that when measurement is optimal e.g., good indicators are used and more factors, small sample sizes of 100 are sufficient (MacCallum, Widaman, Shang, & Hong, 1999). However, as measurement becomes suboptimal, with weaker indicators and fewer factors, optimal sample sizes increase to the range of 100-200, and in very poor conditions very large samples become necessary (MacCallum, Widman, Shang & Hong, 1999).

In this research, it was expected that a moderate number of factors with good indicators would be extracted, so a sample of 100-200 participants was seen as acceptable for exploratory factor analysis. For the purpose of this research, an initial request was made to recruit 250 undergraduate university students as participants. While this number requested is greater than that needed for conducting the analyses, it was expected that data from some participants would be dropped due to incomplete responses, problems in the screening process, or problems in the cleaning process. As such, oversampling enables a researcher to collect enough data to run analyses after accounting for unsalvageable data. In the end, 250 participants was not enough to test all the hypotheses, so a data collection challenge (see Section 2.3.2.) necessitated that more

participants be recruited. A second request was made to recruit 80 more participants in order to assess test-retest reliability which resulted in a total of 330 participants over the course of the 2013-2014 academic terms.

260 responses were logged in the Qualtrics participant response system for Wave 1 of data collection (Winter 2013 academic term). 90 responses were logged in the Qualtrics system for Wave 2 Phase 1 of Data collection (Fall 2014 academic term). 61 responses were logged in for Wave 2 Phase 2 of Data collection (Fall 2014 academic term). A series of participant screening procedures were used to exclude participants from the final sample. These screening procedures are described below in the Results section. Data from 198 participants in Wave 1, 72 participants in Wave 2 Phase 1, and 51 participants in Wave 2 Phase 2 were retained for data cleaning procedures and further analysis. For a clarification of what Waves 1 and 2 as well as Phases 1 and 2 mean, please refer to Table 1. A decision was made to merge the two waves of data in the final analysis, resulting in a final sample of 269 participants. The sample was comprised of 158 females and 111 males. Participants ranged in age from 17 to 36, with the majority being 17 to 22 years of age. In terms of academic position, most participants were first year university undergraduates and the sample was comprised of participants from a wide range of disciplines, such as the Faculty of Engineering, the Faculty of Social Science, the Faculty of Arts and Humanities, etc.

The participants reported speaking a wide range of languages with family members and friends. Additionally, the participants classified themselves using several unique ethnicity labels, such as mixed race, Canadian/Swiss/Egyptian, Indo-Canadian, etc. In terms of cultural identification, 108 self-classified as monocultural, 128 as bicultural, and 33 as multicultural. 80 of the bi/multicultural participants felt that their cultures were both complementary and equally

important, whereas 81 of these individuals believed that one culture influenced them more than the other. The majority of participants were not in a relationship and were domestic students. The majority of the participants had friends from the same culture, and a few friends from different cultures. Additionally, roughly half the participants have been in Canada their entire lives, whereas the other half have been outside of Canada either for extended stays or visits. Most participants had also recently travelled outside of Canada for a trip that was at least a few days long. Given the distribution of the demographic variables, the sample can be classified as heterogeneous and representative of individuals from a broad range of groups.

2.2. Measures

2.2.1. Demographic information

In order to collect relevant background information, a questionnaire was created. This questionnaire asked participants questions regarding their basic demographic and study-specific demographic information. The basic demographic questions were about age (years), gender, program of study, year of study, and self-rated ethnicity. In order of presentation, the study-specific demographic questions were about first language, language spoken with family, language spoken with friends, cultural status (i.e., monocultural, bicultural, multicultural, etc.), extent of agreement between different cultures (i.e., equal and complementary or preference for one over the other), international or local student, relationship status, travel outside Canada, places lived, and composition of friendship circle. These questions covered a broad range of domains from personal (e.g., relationship status) to experiential (e.g., travel outside of Canada), and were meant to enhance understanding of the unique and diverse nature of the sample collected.

2.2.2. Emotional intelligence

In order to measure emotional intelligence, the Brief Emotional Intelligence Scale-BEIS 10 (Davies, Lane, Davenport, & Scott, 2010) was used. This 10 item measure is scored on a five point Likert scale where 1 = strongly agree and 5 = strongly disagree. The entire scale was recorded in the opposite direction prior to scoring to ensure that all scales used in the research were in the same direction. This implies that higher scores on the BEIS-10 scale/subscales corresponded to higher levels of emotional intelligence. The scale is comprised of five subscales of two items each: appraisal of own emotions (e.g., I know why my emotions change), appraisal of others' emotions (e.g., by looking at their facial expressions, I recognize the emotions people are experiencing), regulation of own emotions (e.g., I have control over my emotions), regulation of others' emotions (e.g., I help other people feel better when they are down) and utilization of emotions (e.g., When I am in a good mood, I am able to come up with new ideas). The scale constructors have reported evidence of acceptable to strong test-retest reliability (i.e., values ranged from 89% to 96% correspondence between scores).The BEIS-10 is available online at http://dx.doi.org/10.1027/1614-0001/a000028

2.2.3. Intercultural sensitivity

In order to measure intercultural sensitivity, the RISS was used. The RISS form which was administered is comprised of 38 items, of which 14 are new items and the remaining are all the items from the original ISS (Chen & Starosta, 2000). Some items needed to be reverse scored prior to conducting data analysis. Participants rated items on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Higher scores on the RISS were associated with higher levels of intercultural sensitivity. The original 24 item ISS was divided into five subscales with varying numbers of items: Interaction Engagement (N = 7; e.g., I avoid those

situations where I will have to deal with culturally distinct individuals), Respect for Cultural Differences (N = 6; e.g., I respect the ways people from other cultures behave), Interaction Confidence (N = 5; e.g., I find it very hard to talk in front of people from different cultures), Interaction Enjoyment (N = 3; e.g., I often get discouraged when I am with people from different cultures) and Interaction Attentiveness (N = 3; e.g., I try to obtain as much information as I can when interacting with people from different cultures). A sample new item is as follows (e.g., Interaction between people from different cultures is a mutually rewarding experience). More information about the psychometric properties of the ISS and how the new items were created for this measure can be obtained from the Current Research section of this paper. Table 1 clearly delineates which are the new items on the RISS as opposed to which items are from the original ISS. The original ISS is available at http://eric.ed.gov/?id=ED447525

2.2.4. Personality

In order to measure personality as defined by the Big Five Personality variables, the mini-IPIP (Donellan, Oswald, Baird & Lucas, 2006) was used. This scale is comprised of 20 items with four items for each of the subscales of Intellect/Imagination (e.g., Have a vivid imagination), Conscientiousness (e.g., Get chores done right away), Extraversion (e.g., Am the life of the party), Agreeableness (e.g., Sympathize with other people's feelings), and Neuroticism (e.g., Have frequent mood swings). Participants rated items on five-point Likert scale ranging from 1 = Very Inaccurate to 5 = Very Accurate. Higher scores on the mini-IPIP correspond to higher levels of Imagination-Intellect, Conscientiousness, Extraversion, Agreeableness, and Emotional Stability (i.e., lower Neuroticism).One of the concerns made by researchers is that in an effort for brevity, researchers may lose richness of data (Crede, Harms, Neihorster, & Valentine, 2012). However, current research using the Mini-IPIP has indicated that the Big Five

personality traits are seen as stable and measureable with even as few as four items per subscale (Milojev et al., 2013). Empirical findings also suggest that the Mini-IPIP is appropriate for use in correlational research (Baldasaro, Shanahan, & Bauer, 2013). Furthermore, the scale creators' finding of acceptable subscale reliabilities α = .68- .81 has been corroborated (Baldasaro et al., 2013; Cooper, Smillie, & Corr, 2010). Taken together, this evidence suggests that the Mini-IPIP is a beneficial tool to measure five-factor personality. The Mini-IPIP is found online at https://www.msu.edu/~lucasri/ipip.html

In order to measure Honesty-Humility, the Honesty-Humility subscale of the 60-item version of the HEXACO-PI-R was used (Lee & Ashton, 2009). This subscale has 10 items which are ranked on a five point Likert scale where 1= strongly disagree and 5= strongly agree. Higher scores on this subscale correspond to higher levels of Honesty-Humility. There are four subscales with varying number of items: Sincerity k = 3 (e.g., I wouldn't pretend to like someone just to get that person to do favors for me), Fairness k = 3 (e.g., I would never accept a bribe, even if it were very large), Greed Avoidance k = 2 (e.g., Having a lot of money is not especially important to me), and Modesty k = 2 (e.g., I want people to know that I am an important person of high status). This subscale has been found to have acceptable reliabilities in two samples (α = .79, .74; Lee & Ashton, 2009). The HEXACO-PI-R is found online at http://hexaco.org/hexaco-inventory

2.2.5. Social desirability

In order to measure social desirability in the participants, the Measure of Social Desirability (MOSD; Shultz & Chavez, 1994) was administered. Shultz and Chavez used the well-known Marlowe & Crowne Social Desirability scale as an exemplar when creating this measure. The English version of this measure is comprised of 11 items that cluster into the factors of

impression management (e.g., I always cross at the crosswalk) and self-deceptive enhancement (e.g., Nothing embarrasses me). Some items were reverse scored prior to conducting data analysis. Participants rated the items on a five-point Likert scale ranging from 1 = strongly agree to 5 = strongly disagree. Two items were reverse scored prior to data analysis. The entire scale was recorded in the opposite direction prior to scoring to ensure that all scales used in the research were in the same direction. In essence, higher scores on the MOSD were associated with higher levels of social desirability. The scale creators have found acceptable reliability α = 0.80 (Shultz & Chavez, 1994), and this has been corroborated by subsequent researchers α = 0.73 (Andrews & Kacmar, 2003). The MOSD is found online at http://dx.doi.org/10.1177/0013164494054004009

Past evidence has suggested that social desirability refers to the propensity for individuals to respond in ways that are beneficial for the self (Furnham, 1986). Asocial desirability bias is problematic because the presence of this form of responding could indicate that results obtained might have questionable validity (Furnham, 1986). In order to examine the effects of social desirability in-depth, a meta-analysis was conducted by Richman, Kiesler, Weisband & Drasgow (1999). In an examination of various response formats (e.g., pencil and paper vs. computerized), it was concluded that the online format afforded participants greater anonymity and choice about which questions to answer, and so was linked with less social desirability (Richman et al., 1999). Considering that this study was done using a computerized format and that most of the other scales in this study have been well-established, social desirability bias was expected to be minimal if not negligible. Additionally, past testing with other measures of intercultural sensitivity have found weak or non-existent links with social desirability measures (Bhawuk & Brislin, 1992; Hammer et al., 2003).

2.2.6. Social dominance orientation

In order to measure social dominance orientation, the Social Dominance Orientation Scale (SDO-6; Pratto et al., 1994) was used. Though there are multiple versions of this scale, the SDO-6 was used, and this has been acknowledged as being the most popular version (Snellman, Ekehammer, & Akrami, 2009). This single-factor scale is comprised of 16 items (e.g., Sometimes other groups must be kept in their place). Participants rated the items on a seven-point Likert scale from 1= very negative to 7=very positive. Higher scores on the SDO^6 indicated higher levels of social dominance orientation. Past research in the United States has demonstrated that the SDO scale has high reliability i.e., α= 0.90-0.91 (Levin & Sidanius, 1999; Pratto et al., 1994). Furthermore, evidence also suggests that across six unique Western and Eastern contexts such as the People's Republic of China, Israel, and USA, the median for the SDO scale was α = 0.83, which implies that this scale is reliable across cultures (Pratto et al., 2006). The SDO^6 can be found at http://nrs.harvard.edu/urn-3:HUL.InstRepos:3207711

2.3. Procedure

2.3.1. General procedure

This study has been thoroughly reviewed and approved by a graduate thesis advisory committee and by the University of Western Ontario Research Ethics Board. Consenting participants completed a host of questionnaires and were thoroughly debriefed upon completion of each phase of the study. Data collection occurred in two waves. Wave 1 took place in the Winter 2013 term and participants completed only Phase 1 of the study. Wave 2 took place in the Fall 2014 term and participants completed both Phases 1 and 2 of the study. In addition to answering the questionnaires listed below for Phase 1, Wave 2 participants were requested to answer a measure of Honesty-Humility and the following questions for Phase 1 in their own

words: a) What does intercultural sensitivity mean to you?; and b) Who were you thinking about when you were answering the questions about intercultural sensitivity? In Phase 1, participants were compensated 0.5 research credits for ½ an hour of participation and this compensation amount is consistent with UWO policy. In Phase 2, participants were given another 0.5 research credit for completing the session which took approximately 15 minutes to complete at a time-period 1 month following Phase 1.

2.3.2. Phase 1 Procedure

A short description of the study was provided on the SONA (i.e., Psychology Participant subject pool) website and interested participants of legal consenting age were able to sign up. Participants were redirected to an external website (i.e. Qualtrics), where they were provided with a detailed letter of information. Consenting participants provided implicit consent (i.e., they participated with the understanding that their proceeding with the study implied their consent), and completed a series of questionnaires. A background information questionnaire was used to collect relevant demographic information. Next, the Brief Emotional Intelligence Scale (Davies et al., 2010), the Mini-IPIP (Donnellan et al., 2006), the Measure of Social Desirability (Shultz & Chavez, 1994); the Social Dominance Orientation Scale (Pratto et al., 1994), and the Revised Intercultural Sensitivity Scale (adapted; Chen & Starosta, 2000) were presented to participants in randomized order. Wave 2 Phase 1 participants additionally completed the 60-item HEXACO-PI-R Honesty Humility Subscale (Lee & Ashton, 2009).

Participants were also requested to provide a non-personally identifiable number (i.e., a SONA participant ID number) for providing due compensation. Finally, participants were thanked and debriefed. Participants were informed that they would be contacted internally through the psychology participation pool, SONA, after a one-month period and provided with

the link to complete Phase 2. Lastly, participants were provided with a list of resources and contact details if they were interested in learning more about the research topic. Wave 1 was set up in a way such that interested participants could contact the researcher if they wanted to participate in a 2nd phase of the study which would be compensated through draw entry for gift cards to campus services. However, no participants signed up for Phase 2, which necessitated the creation of a Wave 2. Wave 2 enabled the researchers to collect the data required to assess the test-retest reliability of the RISS.

2.3.3. Phase 2 procedure

All the Wave 2 participants (i.e., those recruited in Fall 2014) were contacted approximately a month following the completion of Phase 1 and provided with a Qualtrics link required to complete Phase 2. Similar to Phase 1, a detailed letter of information was presented after which implicit consent was obtained. Consenting participants answered a truncated version of the background information questionnaire, the Brief Emotional Intelligence Scale, and the Revised Intercultural Sensitivity Scale. Consistent with Phase 1, a SONA ID number was requested for the purpose of providing due compensation and linking participant responses from Phases 1 and 2 to aid with subsequent data analysis. Lastly, participants were thanked, debriefed and provided useful resources and contact details in case they were interested in learning more about the research topic.

CHAPTER 3: RESULTS

3. Results

3.1. Data Cleaning

In order to conduct the main analyses and assess the hypotheses, it was necessary to first ensure the quality of the data. Data cleaning is a procedure used to discern and remove erroneous information that may alter study results (Van den Broeck, Cunningham, Eeckels, & Herbst, 2005). Data were collected in two waves. Wave 1 was collected in the Winter 2013 academic term, and Wave 2 was collected in the Fall 2014 academic term. Each data set was cleaned independently prior to merging the datasets for further analyses. Two decision rules were followed prior to further cleaning of the data. First, any participant who completed Phase 1 of the study (see Procedure) in a timespan less than eight minutes was removed from the final sample. A time-limit of eight minutes was selected after careful consideration of the number of items (i.e., 100+ items) of varying difficulties which needed to be assessed within a short time-span (i.e., one hour).

The researcher attempted to go through all the questions. It was evident that given the varying nature of the questions, it is highly unlikely that a participant would have been able to run through the questionnaire in such a short time-span as eight minutes without question comprehension being sacrificed. Furthermore, qualitative research findings have demonstrated that questionnaire completion is seen as a deep engagement process by participants, and that selecting a choice is a thought-driven process (Galasiński, & Kozłowska, 2013). The possible issues associated with shorter questionnaire completion times are satisficing, completion-time based outliers, and enhanced tendency for *straight-line responding* (Herzog & Bachman, 1981; Malhotra, 2008). As such, excluding participants based on an eight minute completion time was

considered as appropriate given that it would decrease the possibility of such issues influencing subsequent analyses. All things considered, anyone who completed the study in less than eight minutes may have engaged in careless or inaccurate responding.

It should be noted that in Wave 2, participants completed Phase 2, which included only a small subset of Phase 1 questions and could be completed in as little as 15 minutes. Thus, the eight minute cut-off rule was not applied to the Phase 2 data subset. Also, listwise deletion was used if any of the 38 RISS items was missing for a given case, considering that this is a scale construction endeavor and an a priori decision was made to work with a full dataset for these variables. Listwise deletion is a stringent data technique in which all values of a case are deleted if a value for a variable of interest is missing for that case (e.g., a 10 item scale is missing 1 item; Roth, Switzer, & Switzer, 1999). Although newer missing data methods exist (e.g., multiple imputation under the normal model), listwise deletion is still a relevant and prevalent procedure (Graham, 2009).

The following errors were detected and dealt with in this research investigation. First, an examination of the raw datasets indicated that: a) some participants entered the wrong value for a specific question, b) participants answered a question when they should have skipped the question, and c) when the data were extracted into a useable SPSS file, for certain variables the total score was incorrectly calculated. In the first case (e.g., for the Age variable), some participants wrote the year they were born in as opposed to their actual age. In the second case, a specific question required participants to provide an answer only if they had answered bicultural or multicultural to the previous question. However, some participants responded when they were monocultural, which indicated human error. In the final case, total scores were computed for each scale using scale items. In this computation process, the SPSS software rarely miscalculated

and provided negative total scores. In such cases, the specific case was re-examined and manual calculation was performed to get the appropriate total score. The process of *data editing* – i.e., fixing an incorrect value (Van den Broeck et al., 2005) – was used to either a) recode incorrect to correct values, or b) delete values to questions participants were not supposed to reply to.

After the cleaning procedures described above were performed, the datasets were considered ready for preliminary analyses then merging. A single case was removed prior to further processing of data, given that this participant had only answered three of the 11 social desirability questions while answering all the other questions. This pattern of responding was considered suspect because social desirability scales are often used to test whether participants are responding in ways that may make them look better, and this in turn influences how accurately researchers can interpret findings from other scales used in research (Furnham, 1986). The resulting sample was comprised of 269 cases. For the purpose of this investigation, only relevant background information variables such as age, gender, and cultural orientation were coded and examined quantitatively. Variables such as ethnicity, language spoken with family, and language spoken with friends were examined qualitatively and were used primarily for descriptive purposes in this research. A missing data analysis using the SPSS Multiple Imputation Analyze Patterns option was conducted on all the relevant non-demographic variables in the merged dataset, excluding computed total scores. 0.074% of the variables were missing (See Figure 1). In order to determine if the missing data were problematic for future analysis, it is important to examine the nature of the missing data (Kline, 2011). Specifically, participants may have purposefully left data values missing or this data loss may be random (Kline, 2011).

Little's Missing Completely at Random (MCAR) test was performed using the Missing Values Analysis option on SPSS to discover if the missing data on one variable was not linked to that on another (Kline, 2011). The test was found to be not statistically significant, $X^2 = 1319.86$, df =1407, $p = .95$, which indicated that the data were missing completely at random (Kline, 2011). In order to assess the hypotheses with a full dataset, manual person-mean substitution was used to replace the missing values. Person-mean substitution is an approach in which missing data for a measure are replaced with the mean of the person computed over all completed items in the measure (Downey & King, 1998; Kline, 2011). The person-mean substitution approach has been considered as a straight-forward procedure which works effectively at mimicking the original data set in conditions where 80% or more of the data are present for the variables measured (Downey & King, 1998). Given the scarce number of participants with missing cases and cases missing in this dataset, the use of person-mean centering is justified.

Lastly, a systematic data cleaning procedure was required in order to create a dataset with participants from Wave 2. To elaborate, Wave 2 participants completed both Phase 1 and Phase 2 of the study. The data from these participants were the only data present to assess test-retest reliability. After following the two decision rules outlined above for each dataset (i.e., removing participants with missing data on the RISS or eliminating those who did not complete the questionnaire within a certain time frame), another decision rule was used. To elaborate, the two datasets were combined and only participants who had the same random ID number across both datasets were retained. After these rules were applied and prior to when time-based outliers were removed, a total of 48 cases were available for test-retest correlational analysis. Participants were initially requested to complete the test within one month of receiving the questionnaire.

However, it was acknowledged that participants may not be able to complete it within that time-span. In order to retain the maximum number of participants while not deviating greatly from a 1 month interval, a decision was made to retain participants who completed the questionnaires within a month ± 5 days. In this procedure, four participants with completion times of 43, 40, 48 and 40 days were removed from the sample resulting in 44 test-retest participants.

3.2. Preliminary Analyses

The descriptive statistics of the Phase 1 datasets in Wave 1 and Wave 2 prior to person-mean substitution are presented in Table 2. Upon comparison of the two sets of descriptive statistics, it is evident that the means and standard deviations are very close for all the variables. Given the similarities between the sets of values, the merge of the datasets is justified. Basic descriptive statistics for the merged dataset prior to person-mean substitution are presented in Table 3. It should be noted that the Wave 2 Phase 1 dataset was the only source of information about Honesty-Humility. The data used to test the hypothesis about Honesty-Humility were derived from the 72 participants in this dataset.

Standard data screening procedures were conducted to assess for skewness, kurtosis, outliers, collinearity, multicollinearity, and response set in the merged dataset. In terms of skewness and kurtosis, the following cut-off values were used: SI = 3 and KI = 10 (Kline, 2011). Descriptives for the merged dataset in Table 3 suggest that none of the skew and kurtosis values exceed cut-offs used. Tukey's Outlier labelling rule is a procedure which employs the 25th and 75th percentiles and a conservative multiplier of 2.2 (Hoaglin & Iglewicz, 1987). A variable was labelled as a univariate outlier if it fell out of the bounds calculated. In cases where the 25th and 75th percentiles were the same value, it was not possible to use Tukey's outlier labelling rule. In these cases, the traditional rule of looking at scores ± 3 standard deviations from the mean was

used (Kline, 2011). Researchers are not in accord about what to do with outliers and when in doubt researchers are recommended to rely on expertise and personal discretion (Osborne & Overbay, 2004). Some intercultural sensitivity items, and a few of the total and subscale scores had a very small number of univariate outlying cases. However, a close inspection of these cases in the context of the cases as a whole indicated that overall these outlying cases could represent meaningful variability and reflect the continuum of scores on a given variable. As such, a decision was made to retain these outliers.

Collinearity is determined through examination of a correlation matrix to see if there is extensive overlap (Kline, 2011). Collinearity was examined for all the scales, their subscales, and the 38 items for intercultural sensitivity. A cut-off score of .80 was used to determine if items and scales were collinear. At the scale level, none of the total scores were collinear with each other, however subscale scores were collinear with total scores. This is expected given that items on a scale form the composite and thus are expected to have extensive overlap (Kline, 2011). As for the intercultural sensitivity items, these showed no collinearity. As such, collinearity was not deemed to be a problem for this dataset. *Multicollinearity* addresses overlap at the level of multiple items (Adnan, Ahmed & Adnan, 2006), and this is measured using a statistic known as the Variance Inflation Factor i.e., VIF and the cut-off score is VIF> 10 (Kline, 2011). Similar to collinearity, subscales showed a pattern of high VIF values with their total scores. However, this pattern of relations was not deemed problematic and was ignored.

Response set refers to a strategized form of answering survey questions, where underlying motivations such as self-enhancement supersede careful responding (Rennie, 1982). When the scales were assessed for response sets, it was found that certain participants did demonstrate response sets. However, in order to gain a clearer picture, the scores of those participants were

examined against those of other participants. In this examination, it was discovered that the response sets displayed were consistent with the trend of scoring by other participants (e.g., a participant scoring only 1 or 2 on a 10 item scale where most of the other participants scored on the lower end of the scale with responses of 1 and 2). As such, data from these participants were retained. In sum, although some cases were flagged during the preliminary data-analytic checking process, these cases were retained as they were not deemed as cases which would greatly influence the results of the subsequent analyses. After all these checks were conducted, it was decided that no participants be removed from the sample and the final merged sample had 269 cases as before.

3.3. EFA and item deletions for RISS versions 1 and 2

The original ISS (Chen & Starosta, 2000) is comprised of 24 items. As described earlier, 14 new items were written for testing with the original items leading to 38 items being tested, to be later further reduced to create the final RISS. These new items were added to enhance the existing measure by adding depth to the current factor structure. However, given the inconclusive results of prior confirmatory factor analytic studies, it was acknowledged that the factor structure extracted for a revised form of intercultural sensitivity may not be in line with the factor structure of the ISS. A rigorous procedure was used in the process of item retention and deletion, and this process will be outlined below. Given prior concerns about the psychometric merits of the ISS scale (Fritz, Mollenberg & Chen, 2002; Peng, 2006), a logical starting point was to check which items did not fit well with this scale as a whole prior to examining the newly written items. First, an EFA was conducted on the original 24 items of the ISS. As per this analysis, five factors were extracted which explained 53.83% of the total variance (42.17% common variance).

Parallel analysis was used to indicate whether the five-factors extracted represented the appropriate number of factors for the 24 items from the original ISS. Test construction researchers have found that classic EFA procedures tend to err on the side of extraction of greater or fewer than the actual number of factors or introduce a great deal of ambiguity (Ledesma & Valero-Mora, 2007; O'Connor, 2000). In contrast, the parallel analysis procedure works by mimicking the actual dataset with randomly generated data and calculating eigenvalues (O'Connor, 2000). In contrast to using an eigenvalue >1 rule, this procedure examines the original eigenvalues versus the artificial eigenvalues and if the former is higher for a given factor, then the factor is retained. Although the eigenvalue > 1 rule was not used, scree plots and a thorough understanding of the literature were used in making decisions on factor extraction. This is to say that a holistic approach was used, instead of relying solely on one statistical technique to make judgments in this research.

In terms of item retention, several criteria were taken into consideration when deciding which items to retain and which items to purge. First, a cut-off criterion for factor loading of .32 was set, this indicates that every item should load at least .32 or have the factors account for approximately 10% of its variance to justify its retention, and this is in keeping with commonly used research principles (Costello & Osborne, 2005; Streiner, 1994). Other considerations concerned factor cross-loadings and poor loadings which are commonly explored in item trimming (Worthington & Whittaker, 2006). A cross-loading item is one that loads highly on more than one factor (Matsunaga, 2010), and a poor loading item is one that does not load well on any factor which in this case would be if an item loading below .32 on all factors. In the EFA of the original scale items, poor loading items were seen as more serious concerns than cross-loading items and were considered first for exclusion from the scale. A concurrent principle that

was heeded during the scale trimming process was whether deletion of a specific item would result in too much deviation from the theoretical meaning of the construct. An exploration of the test construction literature by Clark and Watson (1995) has indicated that test construction is both an empirical and theoretical endeavour. As such, item deletion was made after careful examination of the items at several levels.

When an item was deleted from the scale, and prior to re-running an exploratory factor analysis, the number of factors to extract was determined using the parallel analysis procedure, scree-plots and theory. Using this logic, three items from the original scale were deleted, resulting in a total of 21 original items which would be tested along with the 14 new items written. A detailed list of the original items deleted and the rationale for deletion can be found in Table 4. The thirty-five items were iteratively factor-analyzed and trimmed in order to determine the composition of the RISS measure. The cut-off criteria and parallel analysis procedure described above was used. Following this logic, two feasible scales were constructed: a four-factor 30-item scale (RISS-V1) and a three-factor 25-item scale (RISS-V2). A visual representation of both scales can be found in Figures 2 and 3. From henceforth, RISS-V1 will refer to version 1 of the measure and RISS-V2 will refer to version 2 of the measure.

3.4. Reliability, construct validity, and test-retest reliability of the RISS versions 1 and 2 (hypotheses 1, 2, and 3)

RISS-V1 is a 30-item scale which subsumes four-factors. The factors were labelled as Interaction Engagement/Enjoyment (Factor 1, 9 items), Interaction Comfort/Confidence (Factor 2, 9 items), Interaction Attentiveness (Factor 3, 4 items), and Respect/ Tolerance (Factor 4, 8 items). The oblique factors on RISS-V2 showed the following pattern of correlations: F1 with F2=.35; F1 with F3=.22; F1 with F4= .49; F2 with F3 = .10; F2 with F4=.33; F3 with F4=.00.

The RISS-V2 is a 25-item scale which subsumes three-factors. The first factor is Interaction Engagement/ Enjoyment V2 and has 8 items, the second factor is the Interaction Comfort/Confidence factor, and it is identical to the 2nd factor of RISS-V1, and the third factor is Respect/Tolerance and it is identical to the 4th factor of RISS-V1. The oblique factors on RISS-V1 showed the following pattern of correlations: F1 with F2= .35; F1 with F3 = .47; F2 with F3=.33. Cronbach α refers to a procedure which examines how well the items which comprise a measure are consistent with one another, and this is a frequently used measure of reliability (Kline, 2011; Santos, 1999). In test construction, the following labels have been assigned to α reliability values as guidelines : "_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and_ < .5 – Unacceptable" (George & Mallery, 2003, p.231 as cited in Gliem & Gliem, 2003, p. 87).

The reliabilities of the scales and subscales are as follows, and the standardized values are in brackets. The full scales of both RISS-V1, α = .91 (.910), and RISS-V2, α = .91 (.92) had excellent reliability. Most subscales had good reliability: Interaction Engagement/Enjoyment-V1, α = .86 (.87); Interaction Comfort/Confidence V1/V2, α = .83 (.84); Respect/ Tolerance=V1/ V2, α = .81 (.82); Interaction Engagement/ Enjoyment-V2, α = .86 (.87). Only the Interaction Attentiveness-V1 subscale had poor reliability, α = .55 (.56). The original ISS reliabilities at the full and subscale level are reported in Appendix A, Table 1. In general, the RISS reliabilities were better than the ISS reliabilities for this sample. Taken together, these findings provide strong support for Hypothesis 1, which stated that the RISS would have good reliability at the full and subscale level and would show improvement over the ISS.

In terms of Hypothesis 2, two competing hypotheses were tested. A five-factor solution that mirrored that of Chen & Starosta (2000) was not the final model extracted. This finding did not

support Hypothesis 2A. In contrast, two solutions were extracted. A four-factor solution with 30-items which accounted for 50.16% of the total variance (42.65% common variance), and a three-factor solution with 25-items which accounted for 50.07% of the total variance (43.58% common variance) were retained, and this provided support for Hypothesis 2B, which claimed that an alternative factor solution consistent with past literature would be extracted. The subscales for the RISS-V1 were highly correlated with the total score of RISS-V1, r (267) = .46-.84, $p < .01$. Similarly, the subscales for the RISS-V2 were highly correlated with the total score of RISS-V2, r (267) = .83-.84, $p < .01$. All the subscales from both scales were poorly to highly correlated with all the other subscales for both RISS-V1, r (267) = .15-.62, $p < .05$-.01, and RISS-V2, r (267) = .49-.62, $p < .01$. The two versions of the RISS were correlated highly with each other, r (267) = .98, $p < .01$. The inter-item correlation matrix for RISS-V1 items can be found in Table 5. A separate correlation table is not shown for the RISS-V2 items, as these represent a subset of the RISS-V1 items, and can be found in Table 5. A close inspection indicates that the majority of the items in a subscale correlate higher with one another than with items from other subscales. The factor loadings for the rotated solution for RISS-V1 can be found in Table 6, and for RISS-V2 in Table 7. An inspection of these loadings indicates that almost all the items loaded strongly on one factor and weaker on the others, and very few items showed cross-loadings.

Additionally, the unidimensionality of each subscale was examined using EFA with oblique rotation. *Unidimensionality* is the principle that a measure examines only a single construct in a parsimonious manner (Clark & Watson, 1995). Parallel analysis in conjunction with scree plots were used in determining the number of factors to extract given prior concerns about the shortcomings of the eigenvalue > 1 rule (Ledesma & Valero-Mora, 2007; O'Connor, 2000). A single factor solution which accounted for 49.28% of the total variance (43.72% common

variance) was extracted for the nine Interaction Engagement/Enjoyment items from the RISS-V1. A single factor solution which accounted for 52.73% of the total variance (46.69% common variance) was extracted for the eight Interaction Engagement/Enjoyment items from RISS-V2. As for the nine items which formed the Interaction Comfort/Confidence on RISS-V1 and RISS-V2, a single factor which accounted for 43.57% of the total variance (37.73% common variance) was extracted. Similarly, for the eight items which formed the Respect/Tolerance subscale for RISS-V1 and RISS-V2, a single factor accounting for 44.857% of the total variance (37.39% common variance) was extracted. EFA extracted a single factor solution which accounted for 43.25% of the total variance (24.97% common variance) for the four Interaction Attentiveness subscale items from RISS-V1. These findings provide full support for the unidimensionality of both versions of the RISS.

With regards to the test-retest reliability of the RISS-V1 and RISS-V2, this was examined for all the subscales as well as scales. At the full-scale level, the Time 1 and Time 2 RISS total scores correlated positively for both Version 1: r (42) = .73, $p < 0.01$; and Version 2: r(42) = .76, p <.01. The subscales ranged from r (42) = .58 - .79. The test-retest reliabilities for the original ISS are presented in Appendix A, Table 1.At the full-scale level, the RISS outperforms the ISS in terms of test-retest reliability (i.e., higher correlations). At the subscale level, most RISS subscales have higher test-retest correlations than ISS subscales. Limited support is shown for Hypothesis 3, which stated that the RISS would demonstrate good test-retest reliability at both the full-scale and subscale level.

3.5. Convergent validity of RISS versions 1 and 2 (hypotheses 4, 5A, 5B, and 5C)

All the correlations between subscales and full-scales of all the measures tested can be found in Table 8. The relationship between the RISS and Social Desirability was non-existent at the

full-scale level (RISS-V1: $r(267) = -.02$, RISS-V2:$r\ (267) = -.01$), and the subscales of the RISS were not significantly correlated to the MOSD subscales These findings provide full support for Hypothesis 4, which states that social desirability bias will not influence the measurement of intercultural sensitivity. The total score of RISS-V1 was positively correlated with Extraversion, $r\ (267) = .14$, $p < .05$. Agreeableness, $r\ (267) = .39$, $p < .01$, Conscientiousness, $r\ (267) = .17$, $p < .05$, and Imagination-Intellect, $r\ (267) = .33$, $p < 0.01$. RISS-V2 at the full scale level was positively correlated with Extraversion, $r\ (267) = .13$, $p < .05$, Agreeableness, $r\ (267) = .40$, $p < .01$, Conscientiousness, $r\ (267) = .17$, $p < .01$, and Imagination-Intellect, $r\ (267) = .33$, $p < .01$. Neuroticism was not significantly correlated with either the RISS-V1 or RISS-V2 total scores. At the subscale level, the subscales from both versions of the RISS significantly positively correlated with Imagination-Intellect.

Version 2 of the RISS correlated positively with Honesty-Humility at the full-scale level, $r\ (70) = .25$, $p < .05$. The Respect/Tolerance subscale which was common across Versions 1 and 2 was positively correlated to the Honesty-Humility total score, $r\ (70) = .42$, $p < .01$. Some RISS subscales correlated positively with some subscales of Honesty-Humility, such as the H-H Mod with RISS Interaction Comfort/Confidence-V1/V2, $r\ (72) = .38$, $p < .01$. Thus, limited support was found for Hypothesis 5A, which states that intercultural sensitivity will be positively linked with Extraversion, Agreeableness, Conscientiousness, Imagination-Intellect and Honesty-Humility, and negatively linked to Neuroticism at the full and subscale level.

Partial support was found for Hypothesis 5B, which states that emotional intelligence will positively associate with intercultural sensitivity at the full and subscale level. In this research, the RISS total score was positively correlated with the BEIS-10 at the full scale level for both versions; Version 1, $r\ (267) = .17$, $p < .01$, and Version 2, $r\ (267) = .14$, $p < .01$. At the subscale

level, all the RISS subscales from both versions, save for the Respect/Tolerance-V1/V2, correlated with the BEIS-10 total score. Some RISS subscales correlated with some BEIS-10 subscales. Full support was found for Hypothesis 5C, that social dominance orientation will negatively link to intercultural sensitivity. The total scores of the RISS was positively associated with the SDO total score: RISS-V1, r (267) = -.38, $p < .01$, and RISS-V2, r (267) = -.40, $p < .01$. All the subscales of the RISS-V2 correlated negatively with SDO and for RISS-V1, only the Interaction Attentiveness subscale did not correlate significantly with SDO.

The correlations between the original ISS and its subscales with the key study variables can be found in Appendix , Table 2.It should be noted that for most study variables e.g., Agreeableness, Extraversion, Conscientiousness and Imagination-Intellect the correlations were comparable for the RISS and ISS. However, while Neuroticism was unlinked to either the full-scales or subscales of RISS-V1 and RISS-V2, the ISS subscale of Interaction Confidence showed a significant negative correlation i.e., r (267) = -.13, $p < .05$. RISS-V2, but not the ISS significantly positively correlated with Honesty-Humility at the full scale level. The ISS correlations with social desirability were non-significant. In terms of EI and SDO, the pattern of correlations were similar to those found for RISS-V1 and RISS-V2 both in direction and magnitude.

CHAPTER 4: DISCUSSION

4. Discussion

In this research, an existing measure of intercultural sensitivity, the 5-subscale ISS (Chen & Starosta, 2000) was revised to create a more parsimonious form, as well as to more effectively assess various psychometric properties including reliability and validity. Qualified support was gathered for the hypotheses tested. The original scale has 24 items and its reliability at the full scale level has been supported. Three subscales of the original scale have acceptable reliability, whereas two subscales have lower reliabilities possibly due to the small number of items, such as the Interaction Attentiveness measure $k = 3$, $\alpha = .48$ (Peng, 2006). Two revised versions of the ISS were constructed in this research investigation. Version 1, with 30-items, has a four-factor structure with the factors of Interaction Engagement/Enjoyment, Interaction Comfort/Confidence, Interaction Attentiveness, and Respect/Tolerance. Version 2 has 25-items and a three-factor structure with the factors Interaction Engagement/ Enjoyment, Interaction Comfort/Confidence, and Respect/ Tolerance. Both versions of the RISS account for more common variance in the items than the original ISS, and also have a pattern of correlations where subscales correlate moderately to highly with the scale total scores. This pattern of correlations suggests that these subscales represent closely related clusters associated with the core intercultural sensitivity construct as measured on both RISS-V1 and RISS-V2.

4.1. The Labelling of factors for RISS-V1 and RISS-V2

A decision was taken to label the factors as opposed to referring to them simply by their factor number. In EFA investigations, new factors are given names based upon the similarities of the elements which create each factor (Maher & Comrey, 1978). It is generally acknowledged that these names are tentative labels for which support must be derived through future research that assesses the factor structure. The factors extracted through EFA for both scale versions are consistent with the intercultural sensitivity literature base and provide a fairly accurate depiction of the construct as a whole. Interaction Engagement/Interaction Enjoyment was an extracted factor for both versions 1 and 2. This factor is comprised of nine items in Version 1 and eight items in Version 2, and taps into ideas such as intercultural participation (e.g., I like taking part in cross-cultural/multicultural activities), feelings of reciprocity (e.g. Interaction between people from different cultures is a mutually rewarding experience) and feelings of interest (e.g., I try to obtain as much information as I can when interacting with people from different cultures). Six scale items were new (e.g., Interaction between people from different cultures is a mutually rewarding experience; I often lose interest when hearing about another culture; I enjoy opportunities to interact with people from different culture; It is refreshing to learn new perspectives when interacting with someone from a different culture; I look forward to interacting with people from different cultures; I like taking part in cross-cultural/ multicultural activities). The remaining items were from the original ISS.

When comparing with the ISS, the Interaction Engagement/Enjoyment factor embodies a merged form of the Interaction Engagement and Interaction Enjoyment factors. Support for this claim can be derived from looking at the way in which the Interaction Enjoyment and Interaction Engagement factors are defined in the context of the ISS. To elaborate, Interaction Engagement

concerned participant involvement whereas Interaction Enjoyment concerned the affective response of individuals to the intercultural encounter (Chen & Starosta, 2000). As can be clearly seen, the RISS factor of Interaction Engagement/Enjoyment is consistent with the ISS at the level of content. Additionally, theoretical examinations by other researchers have also corroborated that intercultural sensitivity does have elements of engagement and enjoyment. Interculturally sensitive individuals are seen as those who demonstrate or feel genuine enjoyment of engaging in different cultural thought processes and actions (Bhawuk et al., 2008). Additionally, both interaction involvement and the ability to enjoy an intercultural interaction have been described as attributes associated with interculturally sensitive people (Chen & Starosta, 1997).

Interaction Comfort/Confidence was a factor extracted for both versions of the scale. This factor is comprised of nine items that examined ideas such as how at ease individuals feel in intercultural settings (e.g., I can be as sociable as I want to be when interacting with people from different cultures), overall emotional response to the intercultural interaction (e.g., I feel like I can't be myself when interacting with people from different cultures) and feelings of competence (e.g., I find it very hard to talk in front of people from different cultures). Two items on this factor were new (I feel anxious when interacting with someone from a different culture; I feel like I can't be myself when interacting with people from different cultures), while the remaining were from the original ISS.

The Interaction Comfort/Confidence factor is closest related to the Interaction Confidence factor from the ISS given its focus on the level of self-assurance that intercultural communicative partners feel (Chen & Starosta, 2000). Additionally, the inclusion of comfort or confidence is meaningful given that the theory suggests that individuals need to push past awkwardness

towards sensitivity and that tolerance and discomfort in intercultural settings can be mutually exclusive (Bhawuk et al., 2008). Also, elevated self-esteem has been considered as tied into the construct of intercultural sensitivity (Chen & Starosta, 1997). A factor that measures levels of ease or confidence is consistent with the meaning of intercultural sensitivity and is useful for measurement.

Respect/Tolerance is yet another shared factor between versions 1 and 2 of the RISS. This factor is comprised of nine items that describe feelings of acceptance or tolerance (e.g., I would not accept the opinions of people from different cultures), respect (e.g., I respect the ways people from other cultures behave), and Openness (e.g., I am open-minded to people from different cultures). All of the items on this factor are from the original ISS. This factor mirrors the Respect for Cultural Differences factor of the ISS, given that both share an emphasis on tolerance of the views and cultural ways of others (Chen & Starosta, 2000). In addition, respect and dignity are considered cornerstones for intercultural sensitivity (Bhawuk et al., 2008). A concept analysis of intercultural sensitivity has shown that respect is one of five core elements underlying this construct (Foronda, 2008). Similarly, Chen and Starosta (1997) have outlined that non-judgement and empathy are key attributes of interculturally sensitive individuals and both necessitate feelings of respect and Openness towards others.

The Interaction Attentiveness factor is unique to Version 1 of the RISS. The items on this factor tap into ideas of perceptiveness (e.g., I am very observant when interacting with people from different cultures) and attention (e.g., When interacting with someone from a different culture, I am strongly aware of our cultural differences). All of the items on this factor are new save for “I am very observant when interacting with people from different cultures”. This factor is most similar to the Interaction Attentiveness factor of the ISS, as they both share an emphasis

on how participants ground themselves and are perceptive of others in intercultural encounters (Chen & Starosta, 2000). Furthermore, the attribute of consideration or attending to others has been seen as a key element of intercultural sensitivity (Foronda, 2008). The component of understanding also is vital (Foronda, 2008) and attentiveness is seen as a means through which a greater understanding is obtained (Chen & Starosta, 1997). Given that the Interaction Attentiveness factor taps into the literature and the ideas described above, its retention as a factor in RISS-V1 is justifiable.

4.2. The adequacy of Interaction Attentiveness, and which RISS version is better

The Interaction Attentiveness factor was retained in one version of the RISS (RISS-V1) yet not the other. A closer inspection of the type of information provided by the items which subsume this factor can provide meaningful insights. In terms of reliability, this subscale demonstrated poor reliability and a pattern of low to moderate correlations with the other subscales. However, when carefully considering the theory, it is evident that there is a lack of agreement in the literature about the extent to which attentiveness or perceptiveness fits with intercultural sensitivity. To elaborate, while some research has shown that attentiveness in an intercultural setting is vital for intercultural sensitivity (e.g., Chen & Starosta, 1997; Foronda, 2008), other research has suggested that attentiveness may represent a facet of a closely related construct, *intercultural awareness* (Chen & Starosta, 1998). Intercultural awareness is seen as a precursor to intercultural sensitivity and it involves being able to recognize and attend to differences both at the surface and deep levels (Chen & Starosta, 1998).

It should be noted that both scale versions yielded unidimensional subscales as found by EFA of the individual items subsuming each factor. Taking all this information into consideration, having a version of the measure with and without the Interaction Attentiveness

factor is meaningful. The version without the Interaction Attentiveness factor will be more parsimonious and psychometrically robust. However, the version with the Interaction Attentiveness can offer more information which could complement more qualitative-based measures. Given that the two full-versions are nearly perfectly correlated i.e., r (267) = .98, $p <$ .01, an argument can be made that using either would provide roughly equivalent information. Ultimately, the decision about which version is the most useful is dependent upon the research question the researcher is interested in. To elaborate, researchers who are interested in purely assessing psychometric content, such as testing validity and reliability, could use either form of the scale given their level of similarity. However, researchers who wish to examine intercultural sensitivity at both the macro (full-scale) and micro (subscale) level may benefit from the expanded version of the RISS as this would be a useful way of complementing qualitative research findings. Future research will ascertain how both versions of the RISS function across a range of contexts.

If pressed for which version of the RISS is superior, i.e., a four-factor or a three-factor measure, the following suggestion can be made. If researchers are interested in tapping specifically into intercultural sensitivity, then RISS-V2 is the optimal choice. This version of the RISS is designed in a way that allows rich introspection into the affective side of intercultural competence. The factors of Interaction Engagement/Enjoyment, Interaction Confidence and Respect/Tolerance in conjunction embody how individuals feel about culturally distinct others before, during, and in post-interactive reflection of intercultural contact. This measure is both dynamic and flexible as it allows an in-depth glimpse into the emotional undertones that individuals have in cultural contexts. Furthermore, the RISS-V2 is comprehensive because the three-factor structure has some items which could be consistent with ideas underlying the

Interaction Attentiveness factor (e.g., I try to obtain as much information as I can when interacting with people from different cultures). A note of caution is made that given the nature of the questionnaire items, this measure may not be suitable for tapping effectively into the broader construct of intercultural competence. The RISS-V2 works best when researchers have the primary focus of studying intercultural sensitivity. If researchers want to study the other elements of intercultural competence, using a battery of measures with the RISS-V2 is recommended. If a one-size fits all composite measure of intercultural sensitivity/competence is desired, then the RISS-V1 may be more effective given that the Attentiveness factor corresponds well with the Interaction Awareness and Intercultural Adroitness aspects of intercultural competence (Chen & Starosta, 1996).

4.3. The Psychometric Robustness of the RISS-V1 and RISS-V2

Both versions of the RISS derived from this research draw heavily from the ISS (Chen & Starosta, 2000). For Version 1, 11 items are new and the remaining 19 items are from the original ISS. For Version 2, eight items are new and the remaining 17 items are from the original ISS. This item distribution between existing and new items can be explained in the following way. At the outset of this research, it was decided that the goal of this test construction project was the refinement of an existing measure of intercultural sensitivity, as opposed to the creation of a new measure altogether. Chen and Starosta's (2000) conceptualization of intercultural sensitivity has been supported by other researchers, and the ISS is a frequently used measure. As such, the new items written were meant to strengthen measurement and give more descriptive value to each of the factors. Both the overlap between RISS factors and the ISS factors, and the fit of the RISS factors within the intercultural sensitivity framework provide credence to the construct validity of the RISS.

This research showed that over a time-span of about a month, the participants, as a whole, demonstrated reasonable test-retest reliability (RISS-V1 = r (42) = .73, p < 0.01;RISS-V2= r(42) = .76, p <.01; subscales ranged from r (42) = .58 - .79). This finding is meaningful considering that gaining a better understanding of the temporal stability of the intercultural sensitivity construct would aid in delineating whether this construct is trait-based or state-based. Furthermore, this is consistent with the literature that states that intercultural sensitivity changes occur over a span of three years (Bennett, 1986; Bhawuk & Brislin, 1992). The finding that the test-retest correlation was high yet not a perfect match is consistent with the idea that when intercultural sensitivity is measured over short span (e.g., six weeks), any changes may reflect knowledge-based changes that can be misconstrued as sensitivity changes (Medina-Lopez-Portillo, 2004). The alpha reliability of the measure at the full-scale and subscale level was also established in this research. This finding is meaningful considering that reliability is a criterion considered by researchers when deciding which measure to use to assess a given construct (Clark & Watson, 1995). In this investigation, several hypotheses concerned whether intercultural sensitivity as measured by the RISS related in the expected direction with the variables to which it should theoretically relate.

The nature of how intercultural sensitivity related to personality variables, emotional intelligence, and social dominance orientation were of particular interest. Past unpublished research has shown that in a Chinese sample, intercultural sensitivity was positively related to all the Big Five except for Neuroticism, with which it was negatively linked (Yan & Zeng, 2010). Additionally, intercultural competence and intercultural adjustment, which are closely related to intercultural sensitivity, have been shown to link positively with all the Big Five, save for Neuroticism (Lawler, Chi, & Huang, 2005; Wang, Freeman, & Zhu, 2013). This study showed

that while intercultural sensitivity as a whole positively associated with Extraversion, Agreeableness, Conscientiousness, and imagination-intellect (a proxy for Openness), non-significant links were found for Neuroticism. In contrast, no research has seemed to examine directly how Honesty-Humility corresponds with intercultural sensitivity. The predicted positive relationship between Honesty-Humility and intercultural sensitivity was supported. This finding is consistent with the idea that Honesty-Humility and intercultural sensitivity share commonalities, such as open-mindedness and flexibility (Chen & Starosta, 2000; Peters, Rowat, & Johnson, 2011). Furthermore, intercultural sensitivity requires both humility and sincerity (Bhawuk et al., 2008), both of which are components of the Honesty-Humility construct.

With regards to the non-significant correlation of intercultural sensitivity with Neuroticism, a re-examination of the definition of Neuroticism provides meaningful insight. To elaborate, Neuroticism as a construct is described with terms such as touchiness or high-strung, and it refers to anxiety or panic at the negative pole and stability and calmness at the positive pole (McCrae & John, 1992; John & Srivastava, 1999; Goldberg, 1990). In terms of the role emotion plays in intercultural sensitivity, the theory suggests that feelings of unease versus calmness may fluctuate as individuals transition between different stages of intercultural competence, of which intercultural sensitivity is a component (Bhawuk et al., 2008; Bennett; 2004; Chen & Starosta, 1997). A possible explanation could be that the intercultural sensitivity measure used in this research had more items than the Neuroticism measure in this research, and as such was sampling from a broader content domain. Having only a 4-item measure of Neuroticism in this research may have meant that possible associations between intercultural sensitivity and Neuroticism could be masked because questions tapping into overlapping content may not be represented in the shortened Neuroticism measure.

As expected, EI showed a positive relationship with intercultural sensitivity. This positive link is in line with past findings of a positive association of intercultural sensitivity with EI (Conrad, 2006; Saberi, 2012). Additionally, this correlation makes sense given that EI and intercultural sensitivity share a core of empathy (Chen & Starosta, 1997; Petrides, 2010), and they are both affective variables (Fernandez-Berrocal & Extremera, 2006). As for the relationship between SDO and intercultural sensitivity, the expected negative correlation was corroborated. This negative link is fitting given that intercultural sensitivity has been linked in the past with SDO (Briggs, 2008; Palmer, 2007). Additionally, although empathy is pivotal to intercultural sensitivity, empathic concern is seen as lacking for those with SDO (Chen & Starosta, 1997; Sidanius et al., 2013).

4.4. Limitations and future research directions

Although efforts were made to conduct all research procedures with scientific rigor, there are still several limitations of this project which need to be addressed. A first limitation of this research is that a convenience sample of undergraduate university students was used. Past research has indicated that university undergraduates can be described as being members of cultures which are "Western, educated, industrialized, rich, and democratic" (Jones, 2010, p. 1627) or WEIRD for short, and that findings obtained from such a group may not be reflecting the general population. This said, given that world diversity is flourishing, an argument has also been made that WEIRD samples may be becoming more representative of the general population (Jones, 2010). It should be noted that although a WEIRD sample was used in this research, the participant characteristics (See *2.1 Participants)* suggest that this sample does represent a diverse group of individuals.

Another limitation of this research is that all the hypotheses were not tested with the same number of participants. To elaborate, Hypothesis 4A about Honesty-Humility being positively associated with intercultural sensitivity at the full and subscale level was tested using only 72 participants, and Hypothesis 3 about the test-retest reliability of the full scale and subscales of the RISS were tested using only 44 participants. The other hypotheses were assessed using data from 269 participants. As such, it is reasonable to state that the findings from the larger sample could be more robust than that from the 72 or 44 case sample. This is corroborated by research which shows that small samples may exacerbate the effects of other considerations for correlations such as the shape of the distribution or how much variability there is in the two variables being correlated (Goodwin & Leech, 2006).

A third limitation is the time-span chosen for the test-retest. According to psychometric theory, short time intervals enhance the likelihood that participants may remember what was tested in the earlier administration and this may inflate test-retest reliability (Drost, 2011). Similarly, with long time spans researchers run the risk of a phenomenon known as *maturation* where the life experiences of participants within the interval could exert influence on how they answer the questionnaire during the second administration (Drost, 2011). Although the time span of one month can be considered as neither too short nor too long, it is possible that the extension of allowable time gap to be ± 5 days may have some influence on the score obtained. Additionally, given that the sample size used to assess the test-retest correlation is small, this suggests that the test-retest results found need to be interpreted with caution.

A fourth limitation is the missing data approach used. First, it must be acknowledged that while complete data sets for every case represent the ideal situation, obtaining such a dataset occurs highly infrequently given that participants miss questions (Downey & King, 1998).

Although Monte Carlo simulation research has shown the merits of person-mean replacement of missing values, more recent evidence has suggested that other approaches such as regression imputation are more robust (McDonald, Thurston, & Nelson, 2010). In this study, given the small number of cases missing it was decided that using procedures such as listwise deletion and person-mean substitution would not be problematic.

A final limitation could be that the data were collected at two time-points and merged. Specifically, the participants in the study were primarily first year undergraduate students sampled from the undergraduate introductory psychology participant pool. Most Wave 1 participants were recruited at a time point where the first year of undergraduate studies would be finishing i.e., the Winter 2013 term, whereas most Wave 2 participants were recruited at a time where the first year of undergraduate studies would be starting i.e., the Fall 2014 term. However, the scores between Wave 1 and Wave 2 participants were comparable. In spite of these similarities, it is possible that there is some demographic information which was not requested for this study which could have influenced the scores of these participants in ways that are yet unknown.

The limitations presented in this research point to areas where there is room for improvement. There are several future directions that can be taken. First, this study can be replicated with a few specific yet important modifications made. Replications should try to have relatively large sample sizes that are consistent for all the hypotheses tested. Second, multiple time-points should be used for test-retest, or a longer interval between test and retest should be used when assessing for test-retest reliability. Third, a more diverse sample including participants of different ages, socio-economic statuses, and demographic backgrounds should be

used and preferably from a non-WEIRD sample. Finally, in order to test the entire spectrum of the human population, clinical samples could be tested as well where possible.

Another fruitful research direction would be to conduct a range of studies assessing the psychometric rigor of the RISS versions. To elaborate, researchers can try to better delineate the boundaries surrounding this construct, as measured by this scale by assessing convergent validity with variables associated in the past with the ISS such as perspective taking, self-esteem and intercultural effectiveness (Chen & Starosta, 2000). Additionally, in order to test the validity of the factor structures, confirmatory factor analytic studies can be conducted. Given that two versions of this scale were extracted in the final analysis, a meaningful study direction would be to do a comparative study and see which version is better overall. In this process, experts can be consulted to better determine how well each version of the scale fits with the literature base as a whole. All these types of studies described would provide valuable support for the scale. Furthermore, other forms of validity, such as discriminant validity, can also be tested.

A third area into which intercultural sensitivity researchers can branch with the help of this measure is the investigation of accuracy of intercultural sensitivity judgments. To elaborate, several researchers are in accord that an intercultural interaction is an exchange between individuals (e.g., Bennett; 1986; Chen & Starosta, 2000; Imahori & Lanigan, 1989). As such, it would be insightful to determine whether and to which extent self-ratings and partner-ratings of intercultural sensitivity are consistent. The studies described above represent only a fraction of the possible directions that researchers can take, and as more studies are conducted both the measurement and the meaning of the construct of intercultural sensitivity will become clearer.

4.5. Concluding Comments

The goal of this research investigation was to build on a pre-existing measure of intercultural sensitivity in order to enhance its psychometric properties and usefulness in both research and practical contexts. As a starting point, a number of items were written for testing together with existing items. The data gathered were examined through several rounds of empirically and theoretically driven EFAs. This investigation resulted in two scales with 30 and 25-items, respectively, which were reliable, temporally reliable, consistent with the literature base, and demonstrated convergent validity with several expected variables. Furthermore, the new scales were not influenced seriously by social desirability bias. The factors common to both scales were Interaction Engagement/Enjoyment, Interaction Comfort/Confidence, and Respect/Tolerance. Interaction Attentiveness was a factor exclusive to Version 1 of the revised measure. These findings suggest that both versions of the RISS could be used as effective tools to measure intercultural sensitivity. However, replications and further psychometric testing are required to determine the merit of this scale over time and across contexts. As discussed, RISS-V1 with its four-factor structure seems to closely mirror intercultural competence measures such as the IDI. However, RISS-V2 seems to be a more affect or emotion specific measure of intercultural sensitivity. In the final analysis, researchers need to carefully examine their research questions when deciding which version to use, but as it stands RISS-V2 remains the measure which taps closest to the crux of intercultural sensitivity.

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Table 1.

Abbreviations used in Tables

Variable Name	What does it Describe?
BEIS-10/ BEIS	Brief Emotional Intelligence Scale; BEIS-10 OwnEm = Own Emotions Subscale; BEIS-10 OthEm = Others Emotions Subscale; BEIS-10 RegOwnEm= Regulation of Own Emotions Subscale; BEIS-10 RegOthEm = Regulation of Others Emotions Subscale; BEIS-10 EmUtil=Utilization of Emotions Subscale
Big Five	Five major personality dimensions: Extraversion, Agreeableness, Neuroticism, Conscientiousness, Openness to Experience
CFA	Confirmatory Factor Analysis
CQ	Culture Quotient- A term associated with Cultural Intelligence
DMIS	Developmental Model of Intercultural Sensitivity
EI	Emotional Intelligence; refers to trait emotional intelligence
EFA	Exploratory Factor Analysis
HEXACO	A six factor model of personality with the following factors H=Honesty-Humility, E=Emotionality, X=Extraversion, A=Agreeableness(versus Anger), C=Conscientiousness, and O=Openness to Experience
H-H	Honesty-Humility factor of the HEXACO; H-H Sinc= Sincerity Subscale; H-H Fair= Fairness Subscale; H-H GrAv = Greed Avoidance Subscale; H-H Mod = Modesty Subscale
ICC	Intercultural Competence
IDI	Intercultural Development Inventory
ICSI	Intercultural Sensitivity Inventory
ISS	Intercultural Sensitivity Scale
KI	Kurtosis Index
MCAR	Missing Completely at Random
MI	Mini-IPIP, MI-E=Extraversion Subscale; MI-A=Agreeableness Subscale; MI-C=Conscientiousness Subscale; MI-N = Neuroticism Subscale; MI-I = Imagination/Intellect Subscale(A proxy for Openness to Experience)
MOSD	MOSD-Measure of Social Desirability; MOSD-IM= Impression Management Subscale; MOSD-SDE= Self-Deceptive Enhancement Subscale
Phase 1	All questionnaires in study assessed; 1 hour to complete; Request made for 1 month follow-up; Wave 1 and 2
Phase 2	Only Background, BEIS-10 and RISS questions; about 15 minutes to complete; Phase 1 also done; Wave 2
RISS	Revised Intercultural Sensitivity Scale
RISS V1.	30-item four-factor version of the measure; RISS-IntEng/IntEnj = Interaction Engagement/Enjoyment; RISS-IntComf/Conf = Interaction Comfort/Confidence; RISS-IntAtt = Interaction Attentiveness RISS-Resp/Tol = Respect/Tolerance
RISS V2.	25-item three-factor version of the measure; same RISS-IntComf/IntConf and RISS-Resp/Tol subscales; RISS-IntEng/IntEng= Interaction Engagement/Enjoyment with 1 less question than in RISS V1. No Interaction Attentiveness subscale.
SDO	Social Dominance Orientation construct or Social Dominance Orientation Scale
SI	Skew Index
SONA	Western University Undergraduate Psychology Research Participant Pool
VIF	Variance Inflation Factor
Wave 1	Participants who completed the study from January to April 2014; Only completed Phase 1
Wave 2	Participants who completed the study from September to December 2014; Completed both Phases 1 and 2

(Continued)

Table 1. (Continued)

Variable Name	What does it Describe?
RISS1	Interaction between people from different cultures is a mutually rewarding experience.#
RISS2	I respect the values of people from different cultures.*
RISS3	I find it very hard to talk in front of people from different cultures.*
RISS4	I often lose interest when hearing about another culture.#
RISS5	I avoid those situations where I will have to deal with culturally-distinct persons.*
RISS6	I am very observant when interacting with people from different cultures.*
RISS7	I am open-minded to people from different cultures.*
RISS8	I don't like to be with people from different cultures. *
RISS9	I often give positive responses to my culturally different counterpart during our interaction.*
RISS10	I find myself more often interrupting when conversing with someone from a different culture. #
RISS11	I pay attention to non-verbal cues when conversing with someone from a different culture.#
RISS12	I enjoy opportunities to interact with individuals from different cultures.#
RISS13	I try to obtain as much information as I can when interacting with people from different cultures.*
RISS14	I think people from other cultures are narrow-minded. *
RISS15	I always know what to say when interacting with people from different cultures.*
RISS16	When conversing with people from different cultures, I am able to tell when they feel uncomfortable with the topic.#
RISS17	I have a feeling of enjoyment towards differences between my culturally-distinct counterpart and me.*
RISS18	I would not accept the opinions of people from different cultures. *
RISS19	I am pretty sure of myself in interacting with people from different cultures.*
RISS20	I often show my culturally-distinct counterpart my understanding through verbal or nonverbal cues.*
RISS21	I often feel useless when interacting with people from different cultures. *
RISS22	It is refreshing to learn new perspectives when interacting with someone from a different culture.#
RISS23	I can be as sociable as I want to be when interacting with people from different cultures.*
RISS24	I feel anxious when interacting with someone from a different culture.#
RISS25	When interacting with someone from a different culture, I can pick out commonalities between our cultures.#
RISS26	I look forward to interacting with people from different cultures.#
RISS27	I enjoy interacting with people from different cultures.*
RISS28	I am able to identify if a person is from a different culture.#
RISS29	I feel confident when interacting with people from different cultures.*
RISS30	I think my culture is better than other cultures. *
RISS31	I respect the ways people from different cultures behave.*
RISS32	When interacting with someone from a different culture, I am strongly aware of our cultural differences.#
RISS33	I often get discouraged when I am with people from different cultures.*
RISS34	I like taking part in cross-cultural/multicultural activities#
RISS35	I feel like I can't be myself when interacting with someone from a different culture.#
RISS36	I get upset easily when interacting with people from different cultures.*
RISS37	I tend to wait before forming an impression of culturally-distinct counterparts.*
RISS38	I am sensitive to my culturally-distinct counterpart's subtle meanings during our interaction.*

*Note. # = new item and * means original ISS item*

Table 2.

Descriptive statistics for the 197 case Wave 1 data and the 72 case Wave 2 data

	Wave 1					Wave 2				
Variable	N	*M*	*SD*	Skewness	Kurtosis	N	*M*	*SD*	Skewness	Kurtosis
BEIS-10 Total	195	37.74	8.05	-1.32	1.65	71	38.30	6.85	-1.19	1.68
BEIS-10-OwnEm	197	7.37	1.99	-.79	.06	72	7.69	1.99	-.96	.67
BEIS-10-OthEm	197	7.71	2.05	-1.04	.67	71	7.83	1.81	-.96	.89
BEIS-10-RegOwnEm	197	7.56	1.90	-.95	.40	72	7.53	1.74	-1.20	1.55
BEIS-10-RegOthEm	195	7.34	1.74	-.75	.56	72	7.26	1.60	-.21	-.63
BEIS-10-EmUtil	197	7.80	2.02	-1.20	1.03	72	8.07	1.71	-1.16	2.14
MOSD Total	191	24.56	6.29	.64	1.06	72	24.35	6.12	.12	-.46
MOSD-IM	194	12.31	3.28	.36	.30	72	12.36	3.49	-.02	-.38
MOSD-SDE	194	12.27	3.99	.75	1.64	72	11.99	3.77	.35	-.39
MI-E	197	13.08	3.66	-.19	-.76	72	13.18	3.47	-.35	-.48
MI-A	194	16.03	2.66	-1.09	1.97	72	15.81	2.85	-.76	.85
MI-C	197	13.67	3.14	-.05	-.69	72	14.82	3.23	-.63	.51
MI-N	196	12.00	3.23	.02	-.18	71	11.72	3.30	-.04	-.42
MI-I	195	15.06	2.54	.01	-.39	72	14.76	2.76	-.20	-.55

Note. The expanded abbreviations of the measures listed in this table can be found in Table 1. All values prior to person-mean centering.

(Continued)

Table 2. (Continued)

	Wave 1					Wave 2				
Variable	N	*M*	*SD*	Skewness	Kurtosis	N	*M*	*SD*	Skewness	Kurtosis
SDO Total	194	37.61	15.18	.69	.46	72	39.47	15.48	.20	-.95
RISS1	197	4.24	.72	-.90	1.17	72	4.39	.66	-.63	-.61
RISS2	197	4.41	.68	-1.11	1.48	72	4.53	.58	-.78	-.36
RISS3	197	3.83	.92	-.78	.47	72	4.07	.86	-.95	1.30
RISS4	197	4.15	.82	-1.02	1.22	72	4.36	.81	-1.58	3.48
RISS5	197	4.10	.80	-.74	.31	72	4.18	.78	-.51	-.56
RISS6	197	3.57	.86	-.31	-.30	72	3.75	.82	-.30	-.30
RISS7	197	4.39	.65	-.81	.62	72	4.39	.85	-2.13	6.03
RISS8	197	4.44	.72	-1.12	.79	72	4.49	.71	-2.00	6.81
RISS9	197	4.01	.64	-.13	-.10	72	4.18	.59	-.06	-.25
RISS10	197	3.89	.85	-.44	-.36	72	3.96	.83	-.68	.23
RISS11	197	3.54	.85	-.85	1.05	72	3.63	.86	-.54	.33
RISS12	197	4.05	.73	-.64	.65	72	4.22	.72	-.59	.04
RISS13	197	3.81	.80	-.59	.43	72	3.93	.88	-.51	-.37
RISS14	197	4.18	.79	-.83	.41	72	4.19	.85	-.81	-.04
RISS15	197	2.73	.81	.24	-.02	72	2.65	.94	.55	-.35
RISS16	197	3.49	.79	-.56	.51	72	3.50	.93	-.11	-.35
RISS17	197	3.65	.72	-.02	-.27	72	3.74	.75	.07	-.52
RISS18	197	4.42	.65	-1.00	1.43	72	4.49	.67	-1.53	3.34
RISS19	197	3.75	.79	-.57	.41	72	3.81	.71	.05	-.48
RISS20	197	3.66	.74	-.51	.95	72	3.60	.71	-.48	.09
RISS21	197	4.02	.81	-.78	.48	72	4.15	.74	-.89	1.21
RISS22	197	4.15	.77	-.88	.88	72	4.47	.58	-.56	-.63
RISS23	197	3.80	.86	-.73	.31	72	3.90	.94	-.44	-.71
RISS24	197	3.76	.86	-.65	.64	72	3.74	1.11	-.78	-.12

Note. Expanded Abbreviations for RISS items can found in Table 1

(Continued)

Table 2. (Continued)

						Wave 1				Wave 2
Variable	N	*M*	*SD*	Skewness	Kurtosis	N	*M*	*SD*	Skewness	Kurtosis
RISS25	197	3.98	.57	-.34	1.25	72	3.94	.75	-1.15	3.11
RISS26	197	3.88	.76	-.50	.58	72	4.11	.72	-.40	-.22
RISS27	197	4.07	.67	-.50	.73	72	4.26	.65	-.32	-.68
RISS28	197	3.94	.76	-.62	.85	72	4.10	.77	-.93	1.18
RISS29	197	3.74	.75	-.62	.73	72	3.86	.79	-.27	-.35
RISS30	197	3.87	.97	-.63	-.22	72	3.78	1.20	-.76	-.34
RISS31	197	4.11	.70	-.78	1.76	72	4.26	.65	-.32	-.68
RISS32	197	3.51	.87	-.16	-.66	72	3.69	.82	-.50	-.08
RISS33	197	4.04	.70	-.69	1.11	72	4.04	.78	-1.37	3.51
RISS34	197	3.57	.86	-.73	.51	72	3.75	.87	-.55	.46
RISS35	197	3.86	.92	-1.08	1.31	72	3.69	1.11	-.96	.22
RISS36	197	4.30	.75	-1.29	2.63	72	4.31	.60	-.22	-.57
RISS37	197	3.34	.85	-.32	.02	72	3.33	1.06	-.57	-.23
RISS38	197	3.29	.83	.11	-.04	72	2.99	.97	-.35	-.35
H-H Total						72	31.33	6.47	-.74	.51
H-H Sinc						72	6.78	1.75	-.14	-.22
H-H Fair						72	10.00	2.90	-.53	-.01
H-H-GrAv						72	9.21	2.66	-.64	-.03
H-H Mod						72	5.35	2.02	.29	-.36

Note. In this research, Honesty-Humility statistics were only collected in Wave 2 Phase 1 of data collection i.e., Dataset on the right

Table 3.

Descriptive statistics and alpha reliabilities for the 269 case merged dataset

Variable	N	*M*	*SD*	Skewness	Kurtosis	Cronbach α (standardized)
BEIS-10 Total	266	37.89	7.74	-1.31	1.73	.91 (.91)
BEIS-10-OwnEm	269	7.46	1.99	-.82	.17	.84(.84)
BEIS-10-OthEm	268	7.74	1.99	-1.03	.74	.89(.89)
BEIS-10-RegOwn	269	7.55	1.86	-1.00	.61	.60(.60)
BEIS-10-RegOth	267	7.32	1.70	-.62	.29	.68(.69)
BEIS-10-EmUtil	269	7.87	1.94	-1.21	1.29	.86(.86)
MOSD Total	263	24.50	6.23	.50	.68	.73(.74)
MOSD-IM	266	12.33	3.33	.24	.07	.47(.48)
MOSD-SDE	266	12.19	3.92	.66	1.19	.71(.72)
MI_E	269	13.11	3.60	-.22	-.70	.80(.80)
MI_A	266	15.97	2.71	-.99	1.56	.74(.75)
MI_C	269	13.97	3.20	-.19	-.52	.69(.69)
MI_N	267	11.93	3.25	.00	-.26	.68(.68)
MI_I	267	14.98	2.60	-.07	-.42	.64(.63)

Note. Descriptives use merged data prior to person-mean substitution. All the Cronbach reliabilities reported are based on the person-mean substituted data

(Continued)

Table 3. (Continued)

Variable	N	*M*	*SD*	Skewness	Kurtosis	Cronbach α (standardized)
SDO Total	266	38.12	15.26	.55	.01	.91(.92)
RISS1	269	4.28	.70	-.85	.86	
RISS2	269	4.44	.66	-1.08	1.33	
RISS3	269	3.89	.91	-.82	.61	
RISS4	269	4.21	.82	-1.13	1.59	
RISS5	269	4.12	.79	-.68	.11	
RISS6	269	3.62	.85	-.32	-.30	
RISS7	269	4.39	.71	-1.42	3.60	
RISS8	269	4.45	.71	-1.34	2.19	
RISS9	269	4.05	.63	-.13	-.11	
RISS10	269	3.91	.84	-.50	-.25	
RISS11	269	3.57	.85	-.75	.84	
RISS12	269	4.10	.73	-.62	.48	
RISS13	269	3.84	.82	-.54	.15	

Note. Cronbach reliabilities were not calculated for single items and expanded abbreviations for RISS items can be found in Table 1

(Continued)

Table 3. (Continued)

Variable	N	*M*	*SD*	Skewness	Kurtosis	Cronbach α (standardized)
RISS14	269	4.19	.81	-.82	.24	
RISS15	269	2.71	.84	.34	-.15	
RISS16	269	3.49	.83	-.39	.21	
RISS17	269	3.67	.73	.01	-.35	
RISS18	269	4.44	.65	-1.14	1.85	
RISS19	269	3.76	.77	-.45	.30	
RISS20	269	3.64	.73	-.50	.72	
RISS21	269	4.05	.80	-.81	.62	
RISS22	269	4.24	.74	-.92	1.02	
RISS23	269	3.83	.88	-.62	-.01	
RISS24	269	3.76	.93	-.73	.45	
RISS25	269	3.97	.62	-.73	2.51	
RISS26	269	3.94	.76	-.48	.40	
RISS27	269	4.12	.67	-.45	.40	

Note. Cronbach reliabilities were not calculated for single items and expanded abbreviations for RISS items can be found in Table 1

(Continued)

Table 3. (Continued)

Variable	N	*M*	*SD*	Skeweness	Kurtosis	Cronbach α (standardized)
RISS28	269	3.99	.76	-.69	.83	
RISS29	269	3.77	.76	-.50	.42	
RISS30	269	3.85	1.03	-.71	-.14	
RISS31	269	4.15	.69	-.68	1.32	
RISS32	269	3.56	.86	-.25	-.58	
RISS33	269	4.04	.72	-.91	1.92	
RISS34	269	3.62	.87	-.67	.49	
RISS35	269	3.82	.97	-1.07	.98	
RISS36	269	4.30	.71	-1.14	2.38	
RISS37	269	3.34	.91	-.42	.01	
RISS38	269	3.21	.88	-.13	.05	

Note. No descriptives were calculated in the merged dataset for H-H or H-H subscales. H-H descriptives are in table above. Expanded abbreviations for RISS items can be found in Table 1.

Table 4.
Table of original and new items deleted to form the final RISS scales

Item Name	Item Number(s)	Reason Deleted
[1]I tend to wait before forming an impression of culturally-distinct counterparts.	37* and 38*	In parallel analysis guided EFA and using a five-factor EFA, these two items fell on a separate factor and this factor represented a nebulous idea that did not seem consistent with the theoretical literature base
[1] I am sensitive to my culturally-distinct counterpart's subtle meanings during our interaction.		
[1]I often give positive responses to my culturally-distinct counterpart during our interaction.	9*	This item barely passed the cut-off criterion of .320 i.e., .324 and so it loaded very weakly on its factor
[1]I pay attention to non-verbal cues when conversing with someone from a different culture.	11#	This item loaded poorly on all the factors i.e., below .32; highest loading is .241
[1]I often show my culturally-distinct counterpart my understanding through verbal or nonverbal cues.	20*	This item loaded poorly on all the factors i.e., below .32; highest loading is .253
[1]I find myself more often interrupting when conversing with a person from a different culture.	10#	This item almost reached the cut-off criterion of .320 i.e., .-.317 and so it would have been a very weakly loading item if retained
[1]I always know what to say when interacting with people from different cultures.	15*	This item loaded poorly on all factors; i.e., below .32; highest loading is -.289
[1]When conversing with people from different cultures, I am able to tell when they feel uncomfortable with the topic.	16#	This item loaded poorly on all factors i.e., below .32; highest loading is .294
[2]I am very observant when interacting with people from different cultures.	6*,25#,28#,32#	All four items were removed because these fell on a separate factor which could be argued as being integral or peripheral to intercultural sensitivity
[2]When interacting with someone from a different culture, I can pick out commonalities between our cultures.		
[2]I am able to identify if a person is from a different culture.		
[2]When interacting with someone from a different culture, I am strongly aware of our cultural differences.		
[2]I have a feeling of enjoyment towards differences between my culturally-distinct counterpart and me.	17*	This item was removed because it was the only item which fell on a factor by itself and retention of this item would be inconsistent with the theoretical literature

Note. [1] refers to all items removed to form RISS-V1 and RISS-V2, and [2] refers to items only removed from RISS-V2. # = new item and * = original item

Table 5.
Inter-item correlation matrix for RISS versions 1 and 2

Variable	1	2	3	4	5	6	7	8	12	13
RISS1	1.00									
RISS2	.50**	1.00								
RISS3	.17**	.25**	1.00							
RISS4	.24**	.35**	.27**	1.00						
RISS5	.29**	.40**	.47**	.46**	1.00					
RISS6	.26**	.19**	.17**	.16**	.21**	1.00				
RISS7	.38**	.46**	.31**	.26**	.42**	.22**	1.00			
RISS8	.38**	.45**	.43**	.38**	.59**	.22**	.56**	1.00		
RISS12	.40**	.39**	.32**	.40**	.47**	.21**	.40**	.53**	1.00	
RISS13	.34**	.31**	.10	.33**	.23**	.34**	.32**	.30**	.53**	1.00
RISS14	.24**	.39**	.25**	.23**	.34**	.10	.33**	.44**	.38**	.18**
RISS17	.34**	.37**	.05	.12*	.16*	.24**	.32**	.28**	.33**	.33**
RISS18	.27**	.45**	.27**	.29**	.38**	.16**	.38**	.50**	.29**	.12
RISS19	.07	.17**	.28**	.18**	.25**	.23**	.14*	.28**	.23**	.12*
RISS21	.15*	.27**	.36**	.21**	.40**	.18**	.19**	.34**	.35**	.21**
RISS22	.39**	.49**	.18**	.44**	.35**	.28**	.33**	.46**	.44**	.38**
RISS23	.16**	.27**	.28**	.15*	.31**	.25**	.26**	.32**	.32**	.19**
RISS24	.03	.13*	.45**	.12	.36**	.15*	.15*	.31**	.25**	.01
RISS25	.16**	.18**	.11	.14*	.17**	.27**	.11	.24**	.15*	.29**
RISS26	.41**	.43**	.18**	.38**	.33**	.30**	.36**	.43**	.63**	.49**
RISS27	.45**	.41**	.26**	.47**	.45**	.33**	.37**	.49**	.69**	.47**
RISS28	.17**	.12	.05	-.01	.09	.24**	.14*	.11	.09	.18**
RISS29	.25**	.26**	.39**	.19**	.40**	.35**	.26**	.35**	.42**	.27**
RISS30	.20**	.28**	.21**	.24**	.33**	.04	.29**	.35**	.26**	.10
RISS31	.20**	.41**	.05	.15*	.16**	.10	.31**	.29**	.18**	.15*
RISS32	.08	.01	-.15*	-.04	-.12*	.21**	-.01	-.06	-.02	.14*
RISS33	.25**	.44**	.43**	.34**	.44**	.18**	.31**	.46**	.39**	.22**
RISS34	.40**	.36**	.25**	.31**	.34**	.17**	.34**	.42**	.51**	.41**
RISS35	.10	.15*	.23**	.12	.36**	.14*	.22**	.32**	.26**	.08
RISS36	.21**	.23**	.26**	.23**	.38**	.09	.30**	.39**	.34**	.20**

Note. * = $p < .05$; ** = $p < .01$

(Continued)

Variable	14	17	18	19	21	22	23	24	25	26
RISS14	1.00									
RISS17	.12	1.00								
RISS18	.47**	.16*	1.00							
RISS19	.05	.25**	.08	1.00						
RISS21	.35**	.12*	.36**	.34**	1.00					
RISS22	.32**	.31**	.37**	.21**	.27**	1.00				
RISS23	.14*	.30**	.20**	.37**	.29**	.23**	1.00			
RISS24	.13*	.10	.16**	.41**	.41**	.09	.39**	1.00		
RISS25	.14*	.20**	.19**	.30**	.14*	.20**	.29**	.15*	1.00	
RISS26	.31**	.39**	.29**	.21**	.25**	.48**	.31**	.16**	.23**	1.00
RISS27	.34**	.36**	.31**	.28**	.33**	.52**	.29**	.24**	.30**	.74**
RISS28	-.01	.14*	.10	.19**	.25**	.09	.26**	.10	.33**	.13*
RISS29	.15*	.30**	.20**	.51**	.41**	.21**	.49**	.46**	.38**	.43**
RISS30	.37**	.06	.36**	.03	.14*	.30**	.06	.16**	.11	.26**
RISS31	.34**	.21**	.38**	.00	.14*	.27**	.08	-.01	.11	.30**
RISS32	-.08	.18**	-.06	.11	.00	.10	.01	-.10	.13*	-.01
RISS33	.36**	.13*	.46**	.33**	.49**	.34**	.31**	.40**	.22**	.33**
RISS34	.24**	.21**	.19**	.14*	.23**	.34**	.26**	.10	.21**	.50**
RISS35	.26**	.07	.23**	.18**	.25**	.14*	.27**	.30**	.11	.20**
RISS36	.42**	.12*	.40**	.17**	.36**	.31**	.17**	.22**	.16**	.24**

Table 5. (Continued)

Note. * = $p < .05$; ** = $p < .01$

(Continued)

Table 5. (Continued)

Variable	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.
RISS27	1.00									
RISS28	.11	1.00								
RISS29	.47**	.28**	1.00							
RISS30	.30**	-.07	.14*	1.00						
RISS31	.24**	.10	.11	.24**	1.00					
RISS32	.02	.26**	.09	-.21**	.01	1.00				
RISS33	.43**	.15*	.39**	.31**	.22**	-.06	1.00			
RISS34	.56**	.02	.32**	.21**	.19**	-.03	.23**	1.00		
RISS35	.22**	.12	.26**	.19**	.07	-.03	.30**	.10	1.00	
RISS36	.35**	.10	.27**	.21**	.21**	.03	.47**	.13*	.39**	1.00

Note. * = $p < .05$; ** = $p < .01$

Table 6.
Pattern matrix for RISS-V1

	Factor			
Variable	1	2	3	4
RISS1	**.46**	-.12	.15	.24
RISS4	**.44**	.09	-.16	.15
RISS12	**.73**	.18	-.13	.01
RISS13	**.64**	-.09	.18	-.03
RISS17	**.37**	-.03	**.32**	.06
RISS22	**.44**	-.05	.08	.33
RISS26	**.77**	.01	.03	.03
RISS27	**.80**	.13	-.04	.00
RISS34	**.68**	.03	-.10	-.04
RISS3	.08	**.56**	-.19	.11
RISS5	.25	**.42**	-.18	.27
RISS19	.08	**.57**	.23	-.14
RISS21	-.01	**.50**	.08	.23
RISS23	.16	**.47**	.22	-.03
RISS24	-.06	**.77**	-.06	-.07
RISS29	.27	**.61**	.25	-.13
RISS33	.04	**.46**	-.01	**.40**
RISS35	-.04	**.38**	-.02	.21
RISS6	.24	.14	**.35**	.01
RISS25	.12	.21	**.36**	.05
RISS28	0.10	.18	**.54**	.10
RISS32	-0.02	-.11	**.51**	-.02
RISS2	0.29	-.03	.12	**.51**
RISS7	0.27	.05	.05	**.40**
RISS8	0.30	.26	-.07	**.42**
RISS14	0.07	.06	-.11	**.59**
RISS18	-0.09	.10	.03	**.75**
RISS30	0.15	.06	-.25	**.39**
RISS31	0.06	-.17	.13	**.54**
RISS36	-0.02	.27	.01	**.44**

Note. Expanded abbreviations for RISS items found in Table 1. Items clustered by factors. Factor 1=Interaction Engagement/Enjoyment; Factor 2= Interaction Comfort/Confidence; Factor 3= Interaction Attentiveness; Factor 4= Respect/Tolerance

Table 7.

Pattern matrix for RISS-V2

	Factor		
Variable	1	2	3
RISS1	**.51**	-.09	.18
RISS4	**.38**	.07	.20
RISS12	**.66**	.19	.06
RISS13	**.69**	-.04	-.08
RISS22.	**.47**	-.03	.30
RISS26	**.78**	.05	.00
RISS27	**.76**	.16	.03
RISS34	**.65**	.04	-.01
RISS3	-.02	**.51**	.22
RISS5	.16	**.38**	**.36**
RISS19	.12	**.61**	-.17
RISS21	.02	**.49**	.23
RISS23	.20	**.50**	-.06
RISS24	-.14	**.77**	.01
RISS29	.31	**.65**	-.16
RISS33	.04	**.44**	**.42**
RISS35	-.06	.36	.25
RISS2	**.35**	-.01	**.44**
RISS7	.29	.06	**.39**
RISS8	.26	.24	**.47**
RISS14	.05	.02	**.62**
RISS18	-.04	.06	**.73**
RISS30	.07	.01	**.46**
RISS31	.15	-.17	**.46**
RISS36	-.01	.25	**.46**

Note. Expanded abbreviations for RISS items found in Table 1. Items clustered by factors. Factor 1=Interaction Engagement/Enjoyment; Factor 2= Interaction Comfort/Confidence; Factor 3= Respect/Tolerance

Table 8.
Correlation matrix for all study variables

Variable	1	2	3	4	5	6	7	8	9	10
1. RISS-V1 Total	1.00									
2. RISS-V1 IntEng/IntEnj	.84**	1.00								
3. RISS-V1/V2 IntComf/IntConf	.82**	.49**	1.00							
4. RISS-V1 IntAtt	.46**	.33**	.30**	1.00						
5. RISS-V1/V2 Resp/Tol	.81**	.62**	.54**	.15*	1.00					
6. RISS-V2 Total	.98**	.83**	.83**	.31**	.84**	1.00				
7. RISS-V2 IntEng/IntEnj	.84**	.99**	.49**	.30**	.62**	.83**	1.00			
8. BEIS-10 Total	.17**	.16*	.16*	.19**	.04	.14*	.15*	1.00		
9.BEIS-10-OwnEm	.09	.07	.08	.13*	.01	.07	.06	.80**	1.00	
10. BEIS-10-OthEm	.14*	.11	.14*	.19**	.04	.12	.10	.82**	.61**	1.00
11.BEIS-10-RegOwn	.09	.06	.12	.09	.01	.08	.05	.80**	.59**	.49**
12.BEIS-10-RegOth	.21**	.25**	.16**	.15*	.06	.19**	.24**	.81**	.49**	.60**
13.BEIS-10-EmUtil	.17**	.16**	.13*	.21**	.04	.13*	.15*	.85**	.55**	.63**
14.MOSD Total	-.02	.05	-.05	-.09	-.02	-.01	.05	-.04	.02	-.08
15.MOSD-IM	.04	.11	.00	-.03	.01	.04	.11	-.03	.06	-.02
16.MOSD-SDE	-.07	-.01	-.09	-.11	-.04	-.06	-.02	-.04	-.02	-.11
17.MI-E	.14*	.08	.26**	.08	-.03	.13*	.06	.11	.07	.06
18.MI-A	.39**	.35**	.32**	.10	.32**	.40**	.36**	.12*	.04	.17**
19.MI-C	.17**	.15*	.16**	.06	.11	.17**	.14*	.15*	.16**	.12*
20.MI-N	-.04	.03	-.10	.05	-.06	-.05	.04	-.18**	-.22**	-.05
21.MI-I	.33**	.29**	.31**	.16**	.23**	.33**	.28**	.09	.07	.07
22.SDO Total	-.38**	-.28**	-.25**	-.03	-.49**	-.40**	-.28**	-.01	.03	-.06
23.H-H Total	.21	.09	.11	-.07	.42**	.25*	.11	.07	.10	.13
24.H-H Mod	.36**	.13	.38**	.09	.40**	.39**	.16	.26*	.23	.34**
25.H-H Fair	.20	.16	.05	.03	.34**	.21	.16	-.03	.08	-.04
26.H-H Sinc	.01	-.11	.01	-.18	.22	.05	-.10	.04	.05	.06
27.H-H GrAv	.06	.09	-.08	-.10	.24*	.09	.12	.00	-.06	.08

Note. * = $p < .05$; ** = $p < .01$

(Continued)

Table 8. (Continued)

Variable	11	12	13	14	15	16	17	18	19	20
11.BEIS-10-RegOwn	1.00									
12.BEIS-10-RegOth	.57**	1.00								
13.BEIS-10-EmUtil	.60**	.67**	1.00							
14.MOSD Total	.07	-.04	-.12	1.00						
15.MOSD-IM	.02	-.05	-.12*	.83**	1.00					
16.MOSD-SDE	.10	-.02	-.08	.88**	.47**	1.00				
17.MI-E	.06	.21**	.05	-.06	-.07	-.03	1.00			
18.MI-A	-.02	.29**	.05	-.05	.03	-.10	.38**	1.00		
19.MI-C	.18**	.09	.06	.29**	.26**	.24**	.04	.12	1.00	
20.MI-N	-.32**	-.09	-.07	-.19**	-.07	-.25**	-.12	.09	-.18**	1.00
21.MI-I	.02	.08	.14*	-.06	.02	-.11	.10	.11	-.05	.03
22.SDO Total	-.01	-.01	.01	.10	.06	.11	-.01	-.32**	.10	.00
23.H-H Total	.02	.07	-.07	.54**	.54**	.38**	-.17	.27*	.20	-.03
24.H-H Mod	.22	.17	.02	.14	.06	.17	-.11	.17	.27*	-.18
25.H-H Fair	-.13	-.01	-.04	.54**	.63**	.28*	.01	.28*	.14	.11
26.H-H Sinc	.11	.04	-.13	.34**	.31**	.26*	-.11	.21	.10	-.15
27.H-H GrAv	-.07	.05	.00	.39**	.35**	.32**	-.34**	.05	.06	.10

Note. * = $p < .05$; ** = $p < .01$

(Continued)

Table 8. (continued)

Variable	21	22	23	24	25	26	27
21.MI-I	1.00						
22.SDO Total	-.17**	1.00					
23.H-H Total	-.18	-.16	1.00				
24.H-H Mod	-.03	-.34**	.48**	1.00			
25.H-H Fair	-.11	-.12	.77**	.13	1.00		
26.H-H Sinc	-.23	-.01	.74**	.26*	.33**	1.00	
27.H-H GrAv	-.10	-.03	.71**	.13	.50**	.35**	1.00

Note. * = $p < .05$; ** = $p < .01$

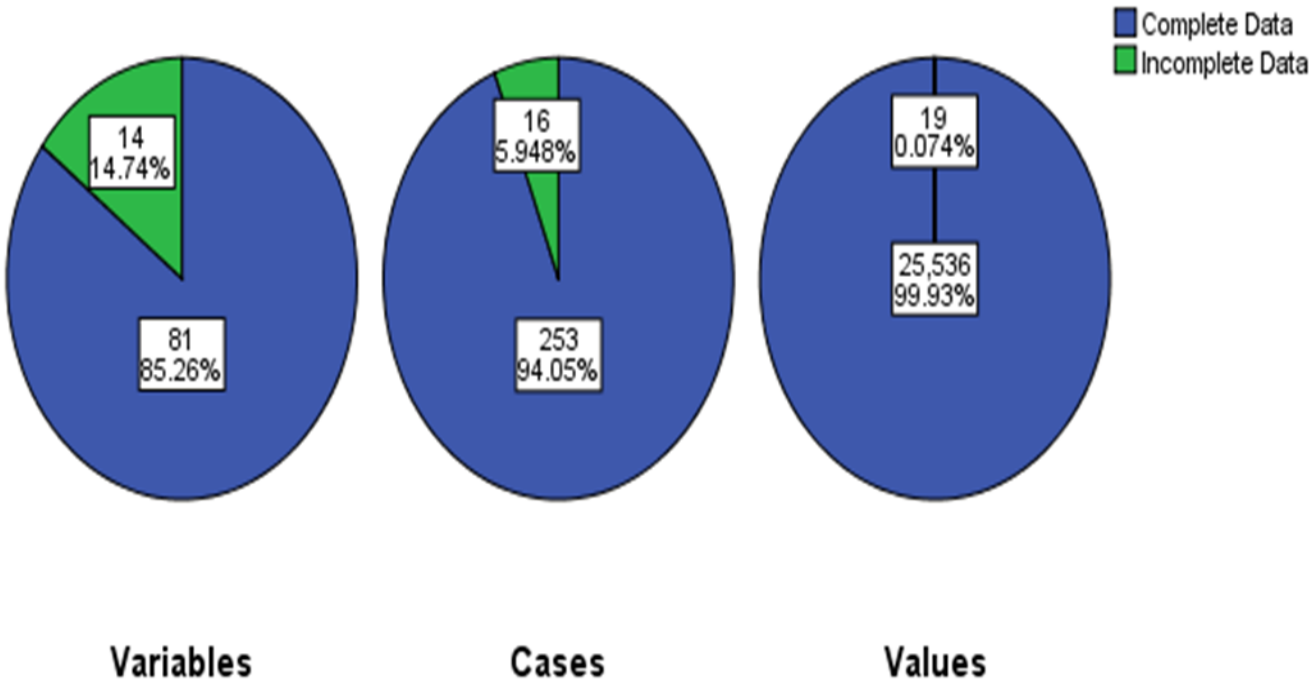

Figure 1. Missing data values in merged dataset

Figure 2. 30-item Four-factor Revised Intercultural Sensitivity Scale

Note. All factors correlated; Items 3,4,5,8,14,18,21,24,30,33,35 and 36 are reversed prior to scoring

Figure 3. 25-item Three-factor Revised Intercultural Sensitivity Scale

Note. All factors correlated; Items 3,4,5,8,14,18,21,24,30,33,35 and 36 are reversed prior to scoring

Appendix A: Original ISS Results

Intercultural Sensitivity Scale (Chen & Starosta, 2000) Psychometrics and Correlations with Key Study Variables

Table 1.

Reliabilities and Test-Retest Reliabilities for the 24 item ISS

Scale/Subscale Name	Number of Items	Reliabilities (standardized)	Test-Retest Reliabilities
Intercultural Sensitivity Scale-ISS	24	α =.87(.87)	*r* (42) = .66**
ISS-Interaction Engagement	7	α =.62(.64)	*r* (42) = .65**
ISS-Respect for Cultural Differences	6	α =.77(.79)	*r* (42) = .63**
ISS-Interaction Confidence	5	α =.73(.74)	*r* (42) = .67**
ISS-Interaction Enjoyment	3	α =.70(.70)	*r*(42) = .36*
ISS-Interaction Attentiveness	3	α =.44(.44)	*r*(42) = .39**

Note. * = $p < .05$; ** = $p < .01$

Table 2.

ISS Correlations with Key Study Variables

Variable	1	2	3	4	5	6
1. ISS Total	1.00					
2. ISS-Interaction Engagement	.85**	1.00				
3. ISS-Respect for Cultural Differences	.78**	.56**	1.00			
4. ISS-Interaction Confidence	.74**	.53**	.34**	1.00		
5. ISS-Interaction Enjoyment	.72**	.44**	.56**	.52**	1.00	
6. ISS-Interaction Attentiveness	.57**	.51**	.26**	.28**	.21**	1.00
7. BEIS-10-Total	.17**	.15*	.01	.19**	.16**	.17**
8. BEIS-10-OwnEm	.10	.06	-.01	.14*	.11	.10
9.BEIS-10-OthEm	.14*	.10	.01	.17**	.17**	.14*
10. BEIS-10-RegOwn	.11	.09	.00	.14*	.09	.10
11.BEIS-10-RegOth	.20**	.19**	.04	.19**	.15*	.22**
12.BEIS-10-EmUtil	.16**	.18**	.02	.16*	.13*	.14*
13.MOSD Total	-.03	-.03	.01	-.02	-.07	.00
14.MOSD-IM	.03	.01	.03	.01	-.02	.08
15.MOSD-SDE	-.06	-.06	-.01	-.04	-.09	-.06
16.MI-E	.18**	.12*	-.04	.35**	.13*	.09
17.MI-A	.40**	.31**	.32**	.28**	.34**	.25**
18.MI-C	.17**	.10	.10	.21**	.15*	.07
19.MI-N	-.08	-.07	-.06	-.13*	.00	.02
20.MI-I	.34**	.31**	.18**	.27**	.31**	.21**
21.SDO Total	-.38**	-.33**	-.49**	-.12	-.31**	-.10
22.H-H Total	.23	.08	.48**	-.04	.18	.07
23.H-H-Mod	.34**	.13	.38**	.25*	.48**	-.03
24.H-H-Fair	.21	.11	.41**	-.05	.14	.15
25.H-H-Sinc	.02	-.05	.25*	-.07	-.08	-.06
26.H-H-GrAv	.09	.06	.29*	-.18	.07	.10

Note. ISS = Intercultural Sensitivity Scale; Expanded Abbreviations for other study variables are found in Thesis Table 1; * = $p < .05$; ** = $p < .01$

Appendix B: Ethics Approval Forms

1. Initial Approval Form

Western Research

Research Ethics

Use of Human Participants - Initial Ethics Approval Notice

Principal Investigator: Dr. Donald Saklofske
File Number:105052
Review Level: Delegated
Protocol Title: Asking the Right Questions: Insights into Assessing Intercultural Sensitivity
Department & Institution: Social Science\Psychology,Western University
Sponsor:
Ethics Approval Date: March 14, 2014 **Expiry Date:** December 31, 2014

Documents Reviewed & Approved & Documents Received for Information:

Document Name	Comments	Version Date
Other	The following document contains references for Section 2.1 of this ROMEO ethics application form.	2014/02/16
Response to Board Recommendations	Response to Recommendations	2014/03/08
Instruments	PDF Study Measures	2014/03/08
Recruitment Items	PDF SONA Poster	2014/03/08
Recruitment Items	PDF Phase 2 Recruitment Email	2014/03/08
Other	PDF Debriefing Phase 2	2014/03/08
Revised Letter of Information & Consent	PDF LOI Phase 2	2014/03/08
Other	PDF Debriefing Phase 1	2014/03/08
Revised Letter of Information & Consent	PDF LOI Phase 1	2014/03/08
Revised Western University Protocol	PDF Protocol	2014/03/08

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the applicable laws and regulations of Ontario has granted approval to the above named research study on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the NMREB's periodic requests for surveillance and monitoring information.

Members of the NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussions related to, nor vote on, such studies when they are presented to the NMREB.

The Chair of the NMREB is Dr. Riley Hinson. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

[redacted]

Ethics Officer to Contact for Further Information

Grace Kelly	Vikki Tran	Mina Mekhail	Erika Basile

[redacted]

[redacted]

2. May Revision Form

Western Research

Research Ethics

Use of Human Participants - Revision Ethics Approval Notice

Principal Investigator: Dr. Donald Saklofske
File Number: 105052
Review Level: Delegated
Protocol Title: Asking the Right Questions: Insights into Assessing Intercultural Sensitivity
Department & Institution: Social Science\Psychology,Western University
Sponsor:
Ethics Approval Date: May 01, 2014 **Expiry Date:** December 31, 2014
Documents Reviewed & Approved & Documents Received for Information:

Document Name	Comments	Version Date
Instruments	PDF Study Measures	2014/04/24
Recruitment Items	PDF SONA Recruitment for Study	2014/04/24
Other	PDF Debriefing Phase 2	2014/04/24
Revised Letter of Information & Consent	Phase 2	2014/04/24
Other	PDF Phase 1 Debriefing	2014/04/24
Revised Letter of Information & Consent	Phase 1	2014/04/24
Recruitment Items	Email Requesting Phase 2 Participation	2014/04/24
Revised Western University Protocol		2014/04/24

This is to notify you that The University of Western Ontario Research Ethics Board for Health Sciences Research Involving Human Subjects (HSREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the Health Canada/ICH Good Clinical Practice Practices: Consolidated Guidelines; and the applicable laws and regulations of Ontario has reviewed and granted approval to the above referenced revision(s) or amendment(s) on the approval date noted above. The membership of this REB also complies with the membership requirements for REB's as defined in Division 5 of the Food and Drug Regulations.

The ethics approval for this study shall remain valid until the expiry date noted above assuming timely and acceptable responses to the HSREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the University of Western Ontario Updated Approval Request Form.

Members of the HSREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the HSREB.

The Chair of the HSREB is Dr. Joseph Gilbert. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

[redacted]

Signature

Ethics Officer to Contact for Further Information

Erika Basile	Grace Kelly	Mina Mikhail	Vikki Tran
[redacted]			

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[redacted]

3. June Revision Form

Western Research

Research Ethics

Western University Health Science Research Ethics Board
NMREB Amendment Approval Notice

Principal Investigator: Dr. Donald Saklofske
Department & Institution: Social Science\Psychology,Western University

NMREB File Number: 105052
Study Title: Asking the Right Questions: Insights into Assessing Intercultural Sensitivity
Sponsor:

NMREB Revision Approval Date: June 16, 2014
NMREB Expiry Date: December 31, 2014

Documents Approved and/or Received for Information:

Document Name	Comments	Version Date
Instruments	Masters Thesis Study Measures	2014/05/30

The Western University Non-Medical Science Research Ethics Board (NMREB) has reviewed and approved the amendment to the above named study, as of the NMREB Amendment Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of HSREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

[redacted]half of Riley Hinson, NMREB Chair

Ethics Officer to Contact for Further Information

Erika Basile	Grace Kelly	Mina Mekhail	Vikki Tran

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[redacted]

4. August Revision Form

Western Research

Research Ethics

Western University Health Science Research Ethics Board
NMREB Amendment Approval Notice

Principal Investigator: Dr. Donald Saklofske
Department & Institution: Social Science\Psychology,Western University

NMREB File Number: 105052
Study Title: Asking the Right Questions: Insights into Assessing Intercultural Sensitivity
Sponsor:

NMREB Revision Approval Date: August 27, 2014
NMREB Expiry Date: December 31, 2014

Documents Approved and/or Received for Information:

Document Name	Comments	Version Date
Instruments	Study Measures PDF Copy	2014/08/13

The Western University Non-Medical Science Research Ethics Board (NMREB) has reviewed and approved the amendment to the above named study, as of the NMREB Amendment Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of HSREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

[redacted] inson, NMREB Chair

Ethics Officer to Contact for Further Information

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[redacted]

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[redacted]

CURRICULUM VITAE

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Research Contributions

Balakrishnan, A., & Page-Gould, E. (2013, May). Effects of Brief Exposure to Footage of a Real-World Phenomenon on Mood and Subsequent Volunteerism. Poster presented at the 43rd Annual Ontario Undergraduate Psychology Thesis Conference. University of Guelph-Humber, ON.

Balakrishnan, A. (2014, May). Behind the Smoke and Mirrors: Exploring Challenges in Defining Intercultural Sensitivity. Roundtable Talk presented at the Trent-Western Psychology Research Forum Emotions, Health, and Wellbeing: New Directions and Cross-Cultural Perspectives. Trent University, Peterborough, ON.

Chen, S., Tohver, G., & **Balakrishnan, A.** (2014, June). [Review of the book Autism spectrum disorder in children and adolescents: Evidence-based assessment and intervention in schools, by L. A. Wilkinson (Ed.)]. (Canadian Journal of School Psychology – in press).

Chen, S., & **Balakrishnan, A.** (2014, September). [Review of the book How I Learn: A Kid's Guide to Learning Disability, by B. S. Miles & C. A. Patterson]. (Joint Newsletter for the Canadian Psychological Association, Educational and School Psychology Section, and Canadian Association of School Psychologists. Fall Issue 2014 – accepted).

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