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Multicultural Psychosocial Education and the Malleability of the Epistemic Essentialist Entitativity Processes

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Kathryn Davis

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2017

Abstract

Multicultural Psychosocial Education and the Malleability of the Epistemic Essentialist

Entitativity Processes

by

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MS, The University of Saint Francis, 2013

BS, Trine University, 2012

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Walden University

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Abstract

Cognitive epistemic systems are reasoning structures that promote an individual's categorization of group members through processes known as cognitive epistemic essentialist entitativity (EEE). The propensity of these processes to become stagnant is known to lead to stereotyping and prejudiced behaviors when individuals are presented with ambiguous information about outgroup members. Educational materials about the contributions, cultural patterns, and social customs of ethnic and cultural groups can reduce stereotyping and prejudiced behaviors. However, whether being presented this material through multicultural psychosocial education in a formal setting is an effective strategy to influence the malleability of EEE processes has not been addressed as a means to shift xenophobic and prejudice discourse. The purpose of this quasi-experimental study was to determine whether malleability of EEE processes resulted from the presentation of multicultural psychosocial educational material in a college classroom. The epistemic need for closure theory, intergroup contact theory, and essentialist theory of race provided the framework for the study. The Essentialist Entitativity Scale was used to compare the malleability of EEE processes of 67 college students who completed an 8-week course based on multicultural psychosocial educational material and 67 college students who did not. An ANCOVA analysis of pre- and posttest data revealed that students who received the culturally rich educational material reported significantly greater malleability of EEE processes than those who did not. Findings may be used to inform educators, educational leaders, and social activists about the malleability of EEE processes, and may provide a strategy to reduce racism, stereotyping, xenophobia, and prejudice.

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Dedication

I dedicate this manuscript to my three children, Michael, Madison, and Joseph.
Thank you for giving me such great strength and motivation throughout my journey.
Your unwavering belief in me now and always, means more than you will ever know. I
love you all very much.

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Chapter 1: Introduction to the Study

Cognitive epistemic systems are social processes by which the individual generates truth, falsity, and judgments (Kosic, Phalet, & Minnetti, 2012). The processes are known as epistemological attitudes and beliefs that are components of the individual metacognitive systems of knowing (Hofer & Pintrich, 1997). When epistemically motivated, individuals are known to make ethnic categorizations that are thought to serve as social reality. One epistemic process is essentialism. Rangel and Keller (2011); Yzerbyt, Rocher, and Schadron (1997); and Haslam and Levy (2006) presented essentialism as a process in which an individual considers group members as having an underlying and immutable sameness. According to the essentialist theory of race (Chao, Hon, & Chiu, 2013), an individual is prone to view another race in totality, believing all persons belonging to that race share the same clear and unalterable physical and psychological markings. When determining the identity and category of others and interpreting others as fundamentally alike, the individual makes inferences referred to as entitativity (Rodenborg & Boisen, 2013). In social cognitive neuroscience, these processes are known as epistemic essentialist entitativity (EEE; Roets & Van Hiel, 2011b).

The EEE processes are known to become stagnant resulting in the individual ignoring differing or conflicting information than that presently held (Tadmor, Hong, Chao, Wiruchnipawan, & Wang, 2012). Stagnation or freezing of the processes has been noted when information and exposure to outgroups is not consistently presented, thereby resulting in the individual's tendency to group all who are perceived to be different (Chao et al., 2013; Rodenborg & Boisen, 2013). In this study, I explored the malleability of the

epistemic processes as a result of consistently introducing information about various ethnicities and cultures through a multicultural psychosocial educational course.

Social expectations about outgroup members are referred to as the psychosocial norm for race or expected outgroup norms (Bradley et al., 2004). The expectations attached to the individual's belief in racial outgroup psychosocial norms include the assumption of knowing what is to be normally expected in the outgroup member's behaviors, beliefs, and attitudes. Research addressing the psychosocial norm for race or group norms has shown the EEE processes are instrumental in shaping the expectations an individual has regarding racial outgroups (Bradley et al., 2004; Nesdale, Maass, Durking, & Griffiths, 2005). When the EEE processes are stagnant, previously held skewed beliefs of the psychosocial norm for race have been shown to precipitate displays of prejudice, racial hatred, and disdain toward members of racial and ethnic outgroup members (Bradley et al., 2004; Nesdale et al., 2005).

Epistemic processes have been linked to an individual's propensity to hold prejudiced opinions, racist beliefs, and xenophobic attitudes (Ommundsen, Van Der Veer, Yakushko, & Ulleberg, 2013; Rodenburg & Boisen, 2013; Roets & Van Hiel, 2011b; Tadmor et al., 2012). When EEE processes are frozen and individuals harbor prejudice and xenophobic attitudes, race relations in a growing population of immigrants in the United States can be tenuous. Given the mix of racial groups in the United States, a study addressing harmonious racial and ethnic integration of outgroup members may promote positive social change.

Chapter 1 includes the background of the epistemic processes and decision-making, the lack of research addressing these processes, and their propensity to freeze or

become stagnant. I present the purpose of this study, research questions and hypotheses, theoretical framework, nature of the study, definitions of terms, assumptions, limitations, and delimitations. I also explain the significance of examining EEE processes as they relate to theory and race relations, as well as the implications for positive social change.

Background

Research has shown that epistemic processes are a catalyst in motivating an individual's construction of knowledge through the act of applying subjectivity to social reality (Kruglanski, 1989). The epistemic need for closure is a theory that addresses the motivational nature of the process of cognitively constructing perceived knowledge in an attempt to form firm answers to ambiguity (Webster & Kruglanski, 1994). Known to affect an individual's information processing and cognitive salience, the need for closure is a tendency to engage in quick judgments based upon perceived knowledge.

Information is processed with a sense of urgency and permanence in an attempt to gain rapid mental closure when ambiguous stimuli are introduced (Roets & Van Hiel, 2010). Epistemically, the need for closure assists in providing a desirable judgment made quickly and easily, while considering any additional information as inconvenient (Rangel & Keller, 2011) and unimportant. The need for closure additionally assists in the individual's depleted cognitive salience with regards to information considered ambiguous or contradictory. Possessing a tendency of permanence, an epistemic process protects the information, holds on to it, or freezes it in an effort to strengthen the consolidation of knowledge and protect the epistemic processes from any further contradictory information. This processing procedure is known to lead to stereotyping and prejudice (Roets & Van Hiel, 2011b).

The epistemic processes include decision-making processes (Kubota, Banaji, & Phelps, 2012) in which the amygdala, a subcortical structure in the anterior lobe of the brain, plays an important part. The anterior cingulate cortex (ACC) is another region of the brain involved in cognitive control tasks such as decision-making (Botvinick, Braver, Barch, Carter, & Cohen, 2001). Neuroimaging indicates these areas of the brain show less activity or inactivity when EEE processes freeze and do not allow for additional cognitive processing of perceived ambiguous information. Neuroimaging research has provided evidence of both ACC and amygdala activation, also known to be the process of unfreezing the individual's EEE processes with consistent viewing of phenotypic stimulus (Blair & Banaji, 1996; Fazio, Jackson, Dunton, & Williams, 1995). However, the ability to unfreeze the EEE processes through exposure to multicultural psychosocial education that teaches ethnic differences and similarities; culturally specific behaviors and beliefs; and concepts of stigma, stereotypes, classism, prejudice, and racism has not been studied.

Statement of the Problem

Researchers have not adequately addressed how the cognitive epistemic processes are affected through exposure to multicultural psychosocial education. Although previous researchers have shown that multicultural experiences have an enhancing effect on the simple cognitive and generalized motivation of learning in an individual, more specific cognitive processing that occurs at deeper levels related to the epistemic essentialist processes have not yet been studied (Tadmor et al., 2012). Research assessing an individual's cognitive tendency to endorse stereotypes through consistent and long-term exposure to multicultural experiences has shown that the individual may become

somewhat receptive to searching for additional new material following this consistent exposure (Tadmor et al., 2012). However, research has also shown that the exposure to multicultural indicators, such as phenotypical stimuli being experienced or brief interpersonal encounters in a consistent and long-term manner, has not been consistently correlated with epistemic change, either permanent or temporary. The lack of movement in the EEE processes has been demonstrated through the simple mentioning of a name in which cultural and semantic attributes are present. These attributes are powerful enough to activate stereotypes thought to be secondary to the epistemic essentialist entitativity processes becoming stagnant (Uhlmann & Cohen, 2007). This practice, frequently seen in discriminatory hiring situations, has been shown to be consistent with aversive racism and the freezing of the epistemic essentialist entitativity processes (Ahmed, 2010) and requires further study to examine the effects of brief and long-term exposure to multicultural experiences.

The intent of this study was to explore the effect of psychosocial educational materials about multicultural practices, languages, individuality, and outgroups on cognitive salience through the EEE processes and their malleability among college students. I examined whether this type of educational material prevents the freezing of EEE processes or unfreezes the processes to make them more malleable. I investigated whether consistent and informative portrayals of outgroups would result in a shift in xenophobic and prejudice discourse for individuals and social groups. Haas (1992) argued the epistemic community is one way to account for the influence a knowledge-based expert has in defining and explaining complex problems. A knowledge-based expert is considered a professional with recognized expertise as well as competence in a

particular discipline. By investigating the impact of a multicultural psychosocial course taught by an expert in the field, I hoped to catalyze further exploration of consistent exposure through learning about differing cultures and ethnic groups from those considered an epistemic community.

Purpose of the Study

The purpose of this quantitative study was to determine whether significant differences were observed in the malleability or unfreezing of the EEE cognitive processes between individuals who participated in a multicultural psychosocial educational course and those who had not. Previous research showed that multicultural experiences enhance simple cognitive generalized motivation rather than more specific cognitive processing at deeper levels, such as those related to the epistemic essentialist processes (Tadmor et al., 2012).

Nature of the Study

A quantitative approach was appropriate to examine epistemic essentialist entitativity. I employed a quasi-experimental design to compare the depth of cognitive salience of participants as managed by the EEE processes. The results obtained from the sample may be generalized to the college population of interest. In keeping with the essentialist theory of race (Chao et al., 2013), intergroup contact theory (Allport, 1954; Pettigrew, 1998) and Need for Closure (NFC) (Webster & Kruglanski, 1994), I examined how cognitive epistemic essentialist entitativity is affected by multicultural psychosocial information.

The introduction of the information was done through the presentation of psychosocial educational material in a standard one term, 8-week, multicultural

psychosocial course at a Midwestern community college. The educational material consisted of an introduction to the history, contributions, cultural patterns, and social customs of major ethnic and cultural groups located in the United States (see Appendix A). I examined whether participating in a psychosocial culturally rich educational course would promote the unfreezing or malleability of the cognitive epistemic essentialist entitativity processes. The unfreezing or malleability of the EEE processes is characterized by an individual's awareness of the incompleteness of his or her internalized representations of another culture or outgroup (Roets, Arne, & Van Hiel, 2011). The results of a posttest served as the dependent variable (DV) as measured by the Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011b).

Research Questions and Hypotheses

The following served as this study's research questions and hypotheses:

Research Question 1

Is there a difference in the depth of cognitive salience through the malleability of epistemic essentialist entitativity processing between college students who have participated in a multicultural psychosocial educational course compared to those who have not?

H₀₁: There is no difference in the depth of cognitive salience through the malleability of epistemic essentialist entitativity processing between college students who have participated in a multicultural psychosocial educational course compared to those who have not.

H_{a1}: There is a difference in the depth of cognitive salience through the malleability of epistemic essentialist entitativity processing between college students who

have participated in a multicultural psychosocial educational course compared to those who have not.

Research Question 2

Is there a difference in the epistemic essentialist-driven depth of cognitive salience through the malleability of the EEE processes that can be noted in the perception of the psychosocial norm for race between college students who have participated in a multicultural psychosocial educational course compared to those who have not?

H₀2: There is no difference in the epistemic essentialist-driven depth of cognitive salience through the malleability of the EEE processes that can be noted in the perception of the psychosocial norm for race between college students who have participated in a multicultural psychosocial educational course compared to those who have not.

H_a2: There is a difference in the epistemic essentialist-driven depth of cognitive salience through the malleability of the EEE processes that can be noted in the perception of the psychosocial norm for race between college students who have participated in a multicultural psychosocial educational course compared to those who have not.

Theoretical Framework

The theoretical framework for this study was partially grounded in the essentialist theory of race (Chao et al., 2013). This theory proposes that individuals believe race is a stable and natural entity and is the biologically based essence of an individual. The theory additionally refers to the freezing or stagnation of the epistemic cognitive processes involved in essentialism (Chao et al., 2013). The role of racial essentialism has been found to be influenced by the individual's cognitive need for racial categorization. Race-based categorization has been linked to increased race-based essentialism as well as to

individuals' heightened tendency to discern racial group membership quickly and easily (Chao et al., 2013).

Wagner et al. (2010) argued the essentialist theory of race presents a cognitively and culturally logical basis for thinking that enhances the tendency to essentialize or group together members of outgroups as mutually exclusive entities. Wagner et al. (2010) argued essentialist thinking is a form of cognitive processing in which the individual assumes an underlying essence or substance in others. The individual is then seen to have the tendency to possess both the ability and desire to process the outgroup as one having an essence. This reasoning is based on the individual's tendency to consider the genes of another to be the causal agent for the observable behavior. The effects of this cognitive process while compiling essentialist attributions based on social beliefs have been shown to have a significant influence on developing stereotypes, outgroup discrimination, racism, and xenophobia (Allport, 1954; Wagner et al., 2010; Wagner, Holtz, & Kashima, 2009).

Keeping this theory in mind, it is important to consider the individual's inclination to gather essentialist attributions based on social beliefs that have been shown to be cognitively processed. This is done in an attempt to group those of a similar essence. I applied this theory to help me answer Research Question 1 by examining potential differences in the depth of cognitive salience through the malleability of epistemic essentialist entitativity processing between college students who participated in a multicultural psychosocial educational course compared to those who did not.

Intergroup contact theory (Allport 1954; Pettigrew, 1998) also served as a theoretical framework for this study. Stemming from an extension of contact theory

(Cameron & Rutland, 2006; Nelson, 2009), intergroup contact theory suggests that individuals who interact with members of outgroups develop positive concepts regarding members of the outgroup. According to Pettigrew (1998), the prejudiced individual develops a propensity for essentialist entitativity from a lack of positive and personal interactions with those in outgroups. Pettigrew argued that individuals will cognitively guide themselves to essentialist entitativity without conscious effort when not exposed to outgroups.

The theory of cognitive need for closure (NFC; Kruglanski & Webster, 1996) also guided this study. NFC refers to an individual's cognitive epistemic need to draw quick and convenient conclusions while blocking or freezing against the cognitive processing of contradictory information; a reduced level of cognitive saliency is known to be precursor to racism and behaviors of essentialism (Rangel & Keller, 2011). This theory assisted in answering Research Question 2 and the possible unfreezing or malleability of the EEE systems. The essentialist theory of race (Chao et al., 2013), intergroup contact theory (Allport, 1954; Pettigrew, 1998), and NFC (Kruglanski & Webster, 1996) guided the examination of the epistemic essentialism entitativity processing known to be an important variable in the development of racist attitudes and behaviors. These theories are discussed further in Chapter 2.

Operational Definitions

Amygdala: The region of the brain considered to be highly involved in social decision-making processes as well as individuals' current racial attitudes (Botvinick et al., 2001).

Anterior cingulate cortex (ACC): A region of the brain that monitors the individual's response to stimuli and response competition.

Blood oxygen level dependent (BOLD) MRI: A noninvasive technique used to assess oxygenation under physiologic and pathophysiologic conditions (Neugaren & Golestaneh, 2014).

Electrophysiology: The study of biological cells and tissues as they relate to biological brain cells (Rule, Freeman, & Ambady, 2013).

Epistemic processes: Individual metacognitive systems of knowing that serve as the individual's knowledge-based regulatory validation of information (Hofer & Pintrich, 1997; Richter & Schmid, 2010; Roets & Van Hiel, 2011b).

Epistemic freezing: A neurocognitive process by which an individual's epistemic processing seizes and freezes social information while preserving it and strengthening it in an attempt to protect against any new or contradictory information (Kruglanski & Webster, 1996; Roets & Van Hiel, 2011).

Epistemic seizing: A metacognitive process by which the individual quickly processes information to fulfill the need for knowing (Chiu, Morris, Hong, & Menon, 2000).

Essentialism: The metacognitive process providing for the belief that all members of a social category share an unchangeable and fixed underlying nature (Rangel & Keller, 2011; Roets & Van Hiel, 2011b).

Entitativity: An epistemic process in which a collection of individuals are distinguished together as a singular group without possession of individual attributes (Campbell, 1958; Clark & Wegener, 2009; Rasinski, Crocker, & Hastie, 1985).

Executive control: Management and control of reasoning, problem solving, and cognitive processing (Botvinick et al., 2001).

Fusiform gyrus (FFA): A brain function known to assist in the processing of racial information and in-group facial recognition (Kubota et al., 2012).

Magnetic response imaging (MRI): A test using magnetic fields and radio wave energy to produce images of body organs (Aragona, Kotzalidis, & Puzella, 2013).

Medial prefrontal cortex (mPFC): A portion of the human brain that is stimulated when an individual is reasoning and explaining out-group behaviors and intentions (Mason & Morris, 2010).

Need for closure: An epistemic process by which an individual seeks clear and enduring answers to ambiguous social stimuli (Kruglanski & Webster, 1996; Roets & Van Hiel, 2010).

Mirror neurons: Brain cells known to fire when an individual acts and observes a behavior of another, in turn, allowing the individual to mirror the behavior as if the observer was the acting individual (Winerman, 2005).

Neuropsychology: A scientific field in which the relationship between the brain, behaviors, and mind are assessed (Mason & Morris, 2010).

Neuropsychological signaling: The process by which various areas of the brain, through neural activity and circuitry signals, influence an individual's executive control and processing (Botvinick et al., 2001; Mason & Morris, 2010).

Positron emission tomography scan (PET scan): Nuclear medical imaging technique providing 3-D images of body organs by detecting gamma rays (Millet et al., 2013).

Psychosocial norm for race: Psychosocial factors and social norms assigned to racial categories (Bradley et al, 2004; Nesdale et al., 2005).

Xenophobia: Fear or hatred of those from other countries, or any stimulus that is perceived as strange or foreign (Kumar & Seay, 2011); an attitude and behavioral prejudice toward immigrants and anyone who appears foreign (Ommundsen et al., 2013).

Assumptions, Limitations, and Delimitations

Assumptions

The Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011; see Appendix B) is a 12-item instrument used to assess the level of belief structure the individual holds about racial groups, and to assess the epistemic belief concepts of race uniformity, race inherence, and informativeness. I assumed this instrument had not been used previously with any of the participants in the study; therefore, bias from instrument exposure should not have been an issue in this study. I also assumed the sample size was appropriate for this study, and I followed the administration and scoring requirements as directed for the Essentialists Entitativity Beliefs scale (Roets & Van Hiel, 2011a). Finally, I assumed the participants would answer the questions honestly and completely.

Limitations

A primary limitation was external validity. I conducted a quasi-experimental study to examine malleability in the EEE processes, and participants' previous experiences with members of outgroups were acknowledged as assessed by the Participant Post-Study Questionnaire (see appendix C). The questionnaire asked the

participants about any unpleasant experiences with members of an outgroup during the eight week period of time in which the study was being conducted. Any negative experience may be considered a threat to the post-test beliefs and reflected on the participants post-test. Additionally, threats to internal validity were considered by comparing both groups' scores prior to the multicultural psychosocial educational material being introduced. Selection bias was also considered. To mitigate selection history and selection maturation threats prior to the study, I asked participants in the comparison group to refrain from engaging in a multicultural educational course during the 8-week research period.

To address construct validity, the generalizability of the IV was considered by which I considered the current course content as being generalizable to all participants and the population as a whole. The content of the 8-week course included cultural and ethnic information per the course curriculum guide. The course covered broad cultural differences and offered participants a thorough education regarding predominant cultures residing inside and outside of the United States. The curriculum addressed the face, predictive, and concurrent validity issues that should have been considered in research with an IV such as a multicultural psychosocial course. The current curriculum validity was addressed through periodic assessment of the participant's knowledge of the material that was presented. The measurement was taken several times throughout the term by tests and quizzes.

Last, a confounding variable was participants' daily encounters with those in outgroups while participating in the study. Any random encounters and experiences the participants had during the study could not be controlled. To mitigate this threat, I asked

participants to report any significant encounters outside of the course via the debriefing form.

Delimitations

I examined malleability of the EEE processes in individuals by measuring the processes both before and after participation in a multicultural psychosocial educational course. The EEE processes were assessed for any measurable movement in both male and female undergraduate college students age 18 and over from a large Midwestern community college. Participants included those who were enrolled in a multicultural psychosocial educational course and those who were not enrolled or had never enrolled.

I did not intend to examine the effects of short-term and inconsistent exposure to the educational material and did not include participants under the age of 18 years. As the EEE processes have not been shown to become stagnant or freeze in early childhood or adolescence (Tadmor et al., 2012), the inclusion of this age group would have been neither relevant nor feasible. The inclusion of graduate students was not considered because this population was not available at the community college of interest. Male and female college students who have never engaged in a multicultural psychosocial educational course were included as a comparison group.

The dependent variable was results of the Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011) measuring the level of belief structure of the individual as well as epistemic belief concepts. I chose this empirically sound scale to assess epistemic thought processes in the treatment and control groups.

The theoretical perspectives that grounded this study were the essentialist theory of race (Chao et al., 2013), intergroup contact theory (Allport 1954; Pettigrew, 1998), and

cognitive NFC. These theories served as frameworks for examining the participants' responses. The intergroup contact theory guided the immediate intergroup learning between the participants. This theory purports those experiencing intergroup contact are apt to develop increasingly positive concepts regarding outgroups. NFC, which is a process related to cognitive essentialism (Rangel & Keller, 2011), was also used to guide the study.

I used a convenience sample of 134 undergraduate college students 18 years of age and older. The sample included those enrolled in the multicultural psychosocial course and those who had not participated in such an educational experience.

Significance of the Study

I investigated the possible malleability of the epistemic essentialist entitativity processes, an underresearched area in social cognitive neuroscience and the social psychology disciplines. Prior research indicated that individuals who have experienced epistemic motivation have less implicit and explicit prejudice toward outgroup members (Lun et al., 2007). I examined whether malleability or unfreezing of the EEE systems occurred through consistent exposure to multicultural psychosocial information. Lun et al. (2007) illustrated through classic social psychology experiments that those who experience a motivation to acquire knowledge elicited by a state of uncertainty use the opinions currently held in the immediate social context in an attempt to form judgment. The results of these studies provided much needed insight into the epistemic cognitive processes and offered a catalyst in researching the role of a multicultural psychosocial education in reducing intergroup bias and stereotype endorsement.

The limited functioning or nonfunctioning of the EEE process is a known precursor of prejudiced behaviors (Roets & Van Hiel, 2011b), aversive racism (Rodenborg & Boisen, 2013), and xenophobic attitudes (Ommundsen et al., 2013). Because the epistemic system is known to freeze and become stagnant (Tadmor et al., 2012), this investigation into the malleability of the EEE processes through multicultural exposure may allow for social change in providing a greater understanding of the role of multicultural experiences and educational materials. The findings provided insight into whether the exposure to knowledge about outgroups can be considered as a possible means to encourage malleability and a positive change in attitudes and behaviors toward outgroup members previously viewed as sharing one essence.

Extended contact theory (Cameron & Rutland, 2006), which is based on intergroup contact theory, may assist in encouraging further research and exploration into the long-term outcome. Future examinations into the effect of exposure and contact through consistent multicultural exposure may assist in the knowledge of ways to keep the EEE processes from freezing or becoming stagnant. According to Monteith (1993) and Rudman, Ashmore, and Gary (2001), an individual requires conscious intention, time, and effort to achieve stereotypical judgments. My study addressed the more recent work that has indicated that in some cases prejudice and implicit stereotyping could be reduced or altered without the individual's deliberate attempt and efforts. Further research into the effects of exposure may enhance the understanding of the development and changing of what were once thought to be implicit cognitive judgments. This may be accomplished by presenting information that is no longer considered ambiguous or contradictory.

Implications for Social Change

In a country where segregation (Rodenburg & Boisen, 2013) and racial categorization (Tadmor et al., 2012) remain prevalent, the need for the investigation as to why these phenomena continue is necessary. The increasing demographic heterogeneity (Kumar & Seay, 2011) has augmented the necessity to recognize and address the continuing prevalence of outgroup discrimination, strained race relations, and racism. The unreasoned fear of anything perceived as foreign or strange is known to foster xenophobic reactions to outgroup members (Ommundsen et al., 2013). Based on these circumstances, there is a call to enhance individuals' adaptation and tolerance to a more culturally and socially complex society.

According to D'Souza (1996), individuals must cognitively process themselves and their in-group as being distinguishable based on the existence of biological differences. Additionally, D'Souza (1996) described the belief of superiority and inferiority and the individuals holding of these ranks as being innate or intrinsic. These beliefs are linked to the EEE processes as a whole and involve a proposition about the existence of racial essences (Roets & VanHiel, 2011b). Appiah (1990) and Ikuenobe (2010) argued the individual with extrinsic racial categorization and xenophobic tendencies suffers from a cognitive incapacity that is manifested by the resistance of contradictory information due to the freezing of the EEE processes.

When the outgroup is seen as possessing more entativity, the tendency for increased negative evaluations exists. Related to the development of xenophobia, the presumed entativity of the outgroup is perceived as being unified and working in an orchestrated manner, thereby enhancing the level of distrust and prejudice (Ommundsen

et al., 2013). This study served as an important catalyst into the continuing examination and dialog regarding multicultural psychosocial education to be required from Kindergarten through higher education. The socializing behaviors and xenophobic attitudes of individuals may be reduced by increasing familiarity with members of outgroups under consistent conditions, and offering the perceiver the ability to not allow for the subconscious freezing of the epistemic system.

Transition

The cognitive processes of EEE have been known to be instrumental in the quick seizing and freezing of information in an attempt to prevent and guard against ambiguity and contradictory information. Having seized upon this information, the individual guards against or freezes out any new or contradictory information. The malleability of the individual's EEE processes had yet to be addressed.

With the introduction of multicultural psychosocial material, the epistemic essentialist driven processes of the individual's currently held thoughts for the psychosocial norm for race may become malleable; however, there has been a lack of research on this topic. This study focused on the specific neurocognitive processing of the EEE system following the introduction and inclusion of culturally rich psychosocial material. The results of this research may provide valuable information about the individual's neurocognitive perceptions for the psychosocial norm for race and the flexibility of those perceptions and cognitive processes. Chapter 2 provides a comprehensive literature review on epistemic essentialism and entativity as the processes relate to outgroup membership and the theoretical frameworks that support each hypothesis.

Chapter 2: Literature Review

This chapter includes a review of the current and relevant literature on epistemic processes, including the essentialist theory of race and its components. Included as well are the elements of essentialism, the elements of the essentialist belief process (both psychological and genetic), the essentialist processes and race relations, essentialism and social and racial categories, neuropsychological processes as they relate to race, racial categorization, stereotyping, and prejudice.

Additionally, social class and essentialism, social cognitive tendencies, and causal attribution are explored. Thirdly, xenophobia, the belief in essentialist social determination, the lay theories of essentialism, gender differences, gender and essentialism, and subjective essentialism are investigated. Lastly, this chapter includes prior research regarding essentialism as it relates to epistemic cognition, epistemic attitudes, epistemic freezing. Further, the relationship between cultural neuroscience and cognitive incapacity, intergroup perception, and cognitive incapacity as they lead to essentialism are investigated. Chapter 2 also addresses the relevance of racism, xenophobia, epistemic cognition, the epistemic need for closure, and attitudes. Additionally, epistemic seizing and freezing, entitativity, culture and neuroscience as they relate to EEE are reviewed. Finally, the methods of the measurement of the EEE processes are reviewed.

The purpose of this quantitative study was to understand the epistemic essentialist entitativity (EEE) processes and their malleability through the introduction of multicultural psychosocial education. Currently, there is a significant lack of empirical

research regarding how, or whether, the individual's exposure to this type of curriculum contributes to any differences in his or her EEE level of processing.

Literature Search Strategy

A thorough review of the literature was conducted from 2012 to 2014 on research dating from 1954 to 2014. Included were the PsycINFO, PubMed, BIOMED Central Neuroscience, SocINDEX, and BIOMED databases. The key words and phrases searched were *epistemics, essentialist, essentialism, racism, stereotyping, outgroup prejudice, epistemic essentialist entitativity, neuro-psychological judgment, prejudice, unfreezing, PET scan, magnetic response imaging (MRI) bias, neuropsychology, prejudice, and need for closure*. Literature was retrieved from Walden University, University of Saint Francis Indiana, and Indiana University Medical School.

Theoretical Foundation

Considering the essentialist theory of race (Chao et al., 2013), this study was grounded in part on the premise that the individual believes that race is a stable and fixed natural entity. Furthermore, the theory posits the individual considers race as an entity that is biologically based and is the fixed essence of an individual. The seizing and freezing of the epistemic cognitive processes, the EEE, according to this theory, involve the individual's processing of essentialism (Chao et al., 2013) and is related to the cognitive motivation of the belief of the psychosocial norm for race.

The components of the essentialist theory of race were described by Chao et al. (2013) as depicted by an individual driven by the epistemic process of essentialism. Essentialism, as a component of the cognitive epistemic processes, references the individual who is epistemically motivated and is known to make ethnic categorizations

that serve as social reality (Roets & Van Hiel, 2011b). Entitativity, included in this theory, encompasses the individual's propensity to determine the identity and category of others, and in turn interpret them as fundamentally alike (Rodenburg & Boisen, 2013). As a sector of social cognitive neuroscience, these are collectively referred to as the epistemic essentialist entitativity (EEE) processes (Roets & Van Hiel, 2011b).

Intergroup contact theory (Allport, 1954; Pettigrew, 1998) proposes the individual who works with and learns about outgroup members in a consistent manner will develop more positive concepts about them. The unfreezing or malleability of the EEE processes are explored by the introduction of the face-to-face multicultural psychosocial educational course regarding differing cultures, ethnicities, and psychosocial norms. Cognitive NFC assists in the guidance of the theoretical aspects of this research as this theory addresses the individual cognitive epistemic need to procure convenient and quick judgments of members of perceived outgroups. This process relates to cognitive essentialism (Rangel & Keller, 2011) and assists in exploring the possibility of unfreezing and/or the malleability of the EEE processes.

Literature Review

Epistemic Processes

The epistemic processes are epistemological attitudes and beliefs that are components of the individual metacognitive systems of knowing (Hofer & Pintrich, 1997). Richter and Schimd (2010) described the personal epistemology systems of an individual as those that consist of their beliefs about the nature and processes of knowing in which the epistemic strategies serve as knowledge-based regulatory validation of the information received. Included in this process is individuals' capacity to be epistemically

motivated to make ethnic categorizations, which they believe to be a social reality (Roets & Van Hiel, 2011b).

Epistemological processes encompass the individual's beliefs about the nature of knowledge and personally knowing. These beliefs can be regarded as the "subjective equivalent of epistemology" (Roets & Van Hiel, 2011b, p. 54). Kienhues, Bromme, and Stahl (2008) described the theoretical philosophy of epistemology as one that is concerned with the criteria, characteristics, and justification characteristics the individual considers prior to engaging in essentialist thoughts and beliefs.

When comparing epistemological beliefs to metacognitive knowledge, Flavell (1979) noted that individuals experience like beliefs in the coherent, complete, and adequate beliefs systems in knowledge and knowing. Earlier models of epistemological beliefs show evidence of the epistemological and the psychological processes of metacognitive knowledge as those that are based upon the major theories that draw upon epistemological beliefs and those beliefs that are related to psychological mechanisms (Richter & Schmid, 2010). Epistemic motives inspire essentialist beliefs about racial groups according to Roets and Van Hiel (2011b). Additionally, Roets and Van Hiel (2011b) argued the epistemic essentialist entitativity (EEE) processes inspire essentialist beliefs about racial groups that influence the individual's "color blind" ideology.

Epistemic cognition (EC) is a significant component of human cognition and the epistemological process. This cognitive process instigates the epistemic beliefs in which an individual will view beliefs about current knowledge as that of knowing (Braten, Britt, Stromso, & Rouet, 2011). Chinn, Buckland, and Samarapungavan (2011) described EC is an umbrella term that is intended to encompass the reflective judgment process and the

epistemic beliefs of the individual. Additionally, the processes of epistemic cognition have been approached as a multidimensional structure of independent beliefs (Chinn et al., 2011).

Epistemic Signaling Systems

Self-esteem is considered to be an epistemic signaling system the individual accesses in an attempt to assess his or her global self-esteem. In other words, the individual will attempt to assess his or her understanding of the presented social reality (Stinson et al., 2010). The individual's self-esteem, as argued by Stinson et al. (2010), is one in which the epistemic signaling system alerts the individual as to whether the social feedback he or she perceives receiving is consistent with his or her chronically perceived values.

Leary and Baumeister (2000) argued the individual who embraces the epistemic acceptance signaling system will in turn exhibit a classification structure in which the signaling of acceptance or the rejection of phenomena changes the person's self-esteem. This change, according to the self-verification theory (Swann, 1997), suggests that the person has an epistemic signaling system that notifies the individual whether social feedback is consistent or inconsistent with his or her global self-esteem. This epistemic neuropsychological signaling system indicates the individual's global self-esteem is based upon the ability to regulate his or her social thoughts and behaviors (Stinson et al., 2010). When unsure or faced with an ambiguous situation, individuals with low global self-esteem will respond with avoidance, whereas those with a higher level of global self-esteem will respond with a healing or mending response (Stinson et al., 2010). This indicates individuals who rely on their global self-esteem will attempt to predict future

behaviors and social outcomes and base their interpersonal behavioral and cognitive thought processes based on that perceived reality.

Epistemic certainty has been characterized by Swann and Schroeder (1995) as the individual's feelings of certainty, control, and epistemic confidence, while the individual who is experiencing epistemic confusion will feel uncertainty, puzzlement, and psychological discomfort. The epistemic system may provide signals when a discrepancy between the individual's current perceived social feedback is processed. This will then activate the person's self-regulatory efforts in an attempt to reduce the perceived discrepancy, which has been shown to imitate the regulatory effort to decrease any perceived discrepancies between the self-view and social feedback (Stinson et al., 2010).

Epistemic Attitudes

Epistemological attitudes serve the individual with an important function in regulating the use of epistemological strategies. These may include knowledge-based validity of the received information, as well as the individual assessing internal consistency (Richter & Schmid, 2010). The epistemic attitudes and processes are described as cognitive activities that take place when the individual is faced with interrelated topics, including the source from which the knowledge originated. The current belief system, perceived evidence, perceived truth, and an understanding via cognitive processing mechanisms are all involved in epistemological attitudes (Chinn et al., 2011).

Epistemological attitudes are found to affect self-regulated learning, which in turn can lead to an individual's rapid attempt to engage in essentialist thinking and metacognitive processing. Additionally, these beliefs and attitudes are known to affect an

individual's self-regulated learning strategy (Richter & Schmid, 2010). Chinn et al. (2011) described a network of epistemic cognitive processes in which five distinguishable components are recognized. Included are the goals individuals adopt in which they pay special attention to the inquiry into a situation and the results of that inquiry as they perceive them. Additionally, the simple or complex structure of the individual's thought of knowing holds a significant role in the processing of information (Chinn et al., 2011).

Kruglanski, Pierro, Mannetti, and De Grada (2006) proposed the cognitive epistemic processes as those in which the individual is dependent upon epistemic authority when faced with ambiguity. As individuals develop within their socio-psychological environment, they will move away from considering the parents and other adults as epistemic authorities and will in turn move toward their peers and perceived in-group members. This move promotes the attempt to collectively form their opinions while the group consensus is sought to define a personal social reality.

The source of knowledge plays an important role in the individual's justification for his or her beliefs. The attitudes of believing, doubting, and endorsements of information intake are all considered (Chinn et al., 2011). Virtues and vices, as explained by Chinn et al. (2011), are to be considered when assessing the individual's perceived epistemic goals. These include the epistemic processes of open-mindedness and intellectual courage while accessing the need for the cognitive and epistemically motivated NFC.

Epistemic Need for Closure

The need for cognitive closure (NFC) is considered a cognitively accessible construct and a significant epistemic motivational component that affects the fundamental epistemic social nexus (Kruglanski et al., 2006). The NFC is identified as a major epistemic motivation associated with an individual's judgment and decision-making processes (Chiu et al., 2000; Pierro, Kruglanski, & Raven, 2012). This epistemic process has been defined by Kruglanski et al. (2006) as the individual's desire for a stable and firm answer to what has been perceived as an ambiguous or confusing situation. Webster and Kruglanski (1994) expounded on the definition by asserting that individuals who have a higher need for epistemic closure will seek closure quickly to an ambiguous stimulus in line with the immediacy principle. The process is included in the permanence principle of adhering to that quick decision without acknowledging and considering alternatives. The individual will seize the most accessible cognitive alternative and freeze their current mindset.

Individuals with a strong need for cognitive closure have been found to have an urgent and permanent seizure of the information leading to epistemic freezing (Pierro et al., 2012). These individuals that have been considered impervious to any additional relevant information and are prone to making strong judgmental commitments. Kruglanski et al. (2006) described the epistemic NFC as a nonspecific representation of an individual construct that determines how an individual will process information and adjudicate personal judgment. Kruglanski et al. (2006) proposed the possibility that the epistemic NFC induces and enhances group-centrism, a behavioral syndrome defined as a pattern of societal pressures the individual endures in an attempt to form an opinion of

uniformity, rejection of perceived deviants, resistance to change, and the perpetuation of group norms.

The concept of the epistemic need for cognitive closure has been identified as an important epistemic process assisting in the understanding of an individual's motivation of utilizing subjective knowledge and beliefs about the social world, as well as knowledge construction and protection (Kruglanski & Webster; 1996; Roets & Van Hiel, 2010). The individual's epistemic NFC leads to essentialism (Chinn et al, 2011). Found to be a reliable progressive source in an individual's cognition and social inquiry, NFC is thought to be based on the individual's epistemic needs and desires. Additionally, this epistemic cognitive framework has been found to assist in the individual's ability to differentiate social dimensions. This has been considered when exploring the individual's strategies for learning new information and the sources the individual seeks out to gain such information (Chinn et al., 2011). These processes, within the field of epistemic thought processes, have been studied by philosophers in an attempt to identify the interconnectedness of both concepts and issues that have influenced a person's epistemic processes and beliefs (Chinn et al., 2011).

Not unlike metacognitive knowledge, Richter and Schmid (2010) argued that epistemological beliefs are similar to stable learner characteristics in which the individual will exert a profound amount of influence on the individual learning process. Motivational states have been known to mediate this influence via the epistemic processes (Lalwain, 2009; Pierro et al., 2012; Richter & Schmid, 2010; Rubin, Paolini, & Crisp, 2011).

Motivational states in an individual are known to mediate the epistemic processes. Discussed by Richter and Schmid (2010) the level of motivation has been found that although possibly opposed to an individual's current standpoint it may continue to oppose the gathering and learning of contradictory information. When separate knowing had an effect on the use of epistemic strategies, it was found to depend upon the objective characteristics and the individual's familiarity with the information that was gathered (Richter & Schmid, 2010).

As an epistemic process, the cognitive NFC is identified in those who prefer predictability and stable knowledge across varying circumstances. Those with a high NFC are correlated with the individual feeling discomfort with ambiguity when experiencing aversive situations that are simultaneously void of closure (Roets & Van Hiel, 2011b).

Lalwani (2009) argued an important process in obtaining closure is the individual's need to possess epistemically secure information when using judgment and referencing cultural groups. Furthermore, those with high NFC grasp influences and often utilize perceived cultural differences in social responding to secure cognitive decisions. Additionally, in two studies conducted by Lalwani (2009) it was suggested that individuals who were influenced by the NFC, with regards to socially desirable reactions to cultural differences, were affected simultaneously by two different processes. The first is indicated by increasing the individual's tendency to engage in "culture-congruence" by responding in a socially desirable manner. Secondly, and simultaneously, is the individual that is shown to have a decreasing tendency to engage in cultural-incongruent socially desirable responses (Lalwain, 2009).

Kruglanski and Webster (1991) proposed the individual with a high level of NFC reacts in a significantly more negative way towards anyone who has undermined the ability of a group to make consensual decisions. Rubin et al. (2011) argued this phenomenon could not explain the NFC that relates to deviant bias, although it does offer alternative explanations to Kruglanski and Webster's (1991) argument. Rubin et al. (2011) suggested those with a high NFC may become frustrated when the need to maintain structured social categories is present. Additionally, Rubin et al. (2011) presented this as a possibility of being secondary to the individual feeling disdain in their inability to maintain a well-ordered and organized social situation and categorization.

The epistemic NFC assists the individual in providing the self with a desirable judgment that is made quickly and easily while considering any collateral information as an inconvenience (Rangel & Keller, 2011). The epistemic system additionally protects the individual's information and assists in making the information or knowledge permanent. This "freezing" of the information is done in an effort to strengthen the consolidation of the individual's knowledge and block any perceived contradictory information from being obtained (Roets & Van Hiel, 2011b). When attempting to create permanence, the epistemic system protects the current knowledge and disallows the ability to free up the process of knowing with regards to the current level of perceived knowledge regarding the outgroup subject.

A significant personal cognitive NFC is the individual's desire to have closure quickly and enduringly. The individual with a strong NFC will tend to seize upon judgment and information, and in turn, be closed off to any additional information (Kruglanski et. al., 2006) Additionally, this individual will greet new and ambiguous

information with a desire of comfort and result in a quick and rapid NFC that will be more suspicious of other possibilities and options (Chiu et al., 2000; Webster, & Kruglanski, 1994).

Chiu et al. (2000) described motivated cultural cognition as that of an individual who seeks to respond to an ambiguous social event by intensifying their reliance upon implicit theory. Individuals with a heightened NFC base their judgments on predominantly pre-existing cues and knowledge as opposed to any subsequent information. Furthermore, Kruglanski and Webster (1996) argued the NFC, when heightened, relies upon more stereotypes instead of case specific information due to stereotypes being based on pre-existing knowledge structures. The overuse of the pre-existing cues allows the individual to justify the tendency to use the perceived knowledge as accurate even when different subsequent evidence is presented.

Epistemic Seizing and Freezing

Pirttila-Backman and Kajanne (2001) argued the early stages of exploratory development in the individual acts as a catalyst for epistemic development, and in adulthood the need to explore any contradictive information is not a crucial need. The NFC motivates the individual in a way that may affect how information drawn from social interaction is processed. Kruglanski and Webster (1996) described two processes as a result of this effect, the act of seizing and freezing of information as one that is preceded by the individual's urgency and permanence tendencies. Those with a heightened NFC will attempt to avoid discomfort from bothersome ambiguous information and quickly seize the perceived information. The permanence tendency denotes the individual's attempt to immediately preserve past knowledge and protect

against processing any new information. Kruglanski and Webster (1996) presented the process as one of the “seizing and freezing” of information that may affect not only the individual’s information processing, but also the individual’s ability in processing the mediation of multiple social psychological information processing systems.

Based upon these theories the individual may feel more assured of their judgments and feel no need to process any additional information prior to committing to the judgment. This lack of additional situational hypotheses seeking leads to the seizing of the information. The person is comfortable and confident enough with the seized information sensing the credibility, plausibility, and certainty will then lead to epistemic freezing (Kruglanski & Webster, 1996).

The freezing process represents the avoidance of any further dissolution of the information possessed when the individual is confronted with new information. The blocking of new information is an attempt to maintain consensual judgments. When freezing information, and preserving it for future use, the individual has a tendency to prefer opinions that will potentially be unchallenged and associate with others who share the same. This surrounding of similar-minded others will additionally allow for positive regard for those groups and in turn allow negative feelings toward those with different or opposing opinions for fear of disrupting the consensus (Kruglanski & Webster, 1996).

Previously formed stereotypes, from a social psychological perspective, have been noted to offer early cues when considering formed attitudes that include stereotypes, prejudice, and memories. Thought to supersede prior knowledge, configurations of the seizing and freezing of memories suggest the individual may utilize a pre-existing knowledge base under a heightened state of NFC. This may be due to the processing of

case-specific information known to substantially slow down closure and thought to be stereotypes that are highly accessible in the individual's memory (Kruglanski & Webster, 1999).

Kruglanski, Peri, and Zakai (1991), described the crystallization stage as the epistemic process in which the individual's opinion is solidified, thereby enhancing the NFC during the pre-crystallization stage leading to a seizing intensity. In the post-crystallization stage the individual who has a heightened NFC will then strengthen the process of freezing leading the individual to a sense of gratification. Individuals are found to experience a decreased level of confidence in their judgment prior to crystallization whereas the individual in the post-crystallization phase have a relatively increased sense of confidence. While attempting to seize information, the extent and intensity in which a person will seek out information is known to be more aggressive and intense than when attempting to freeze information and judgments. The individual attempting to seize and freeze information, as explained by Kruglanski et al. (1991), results in an increase in epistemic reluctance to consider and search for additional or new information.

Kruglanski and Webster (1996) studied the epistemic process of freezing in individuals with a heightened sense of NFC who possessed a prior opinion and found that a considerable amount of disagreeing and conflict arose between those with a prior opinions and with those who held a different opinion. This "fight rather than switch" process is found to be potentially dysfunctional in those individuals who could not, or would not, exert the energy in what is considered an arduous task of further information processing. Even as the goal of closure is in the forefront of processing tasks, the

functional autonomy from those with differing input is seemingly shut down and shunned.

The NFC is an area of the epistemic processes which is focused upon identifying the cognitive foundations of prejudice. Included, in addition to Kruglanski & Webster (1996), is the theory for Need for Structure (NFS; Neuberg & Newsom, 1993). Both of these approaches focus upon the individual's epistemic processing. For example, the person's tendency to incorrectly process incoming information. These processes and outcomes have been linked to the person's cognitive processing style which have been indicated as being a pre-cursor to stereotyping and prejudiced behaviors towards disparaged groups (Hong, Chao, & No, 2009)

Hong et al. (2009) described the understanding that a person may have regarding the pure nature of race creates a lens in which he or she will perceive the acknowledgement and understanding of racial differences, and in turn, hypothesize a racial realness or reality. In turn, this will lead to the individual's personal way of encoding, representing, and organizing the information when it is related to race.

Epistemics and Emotions

To decide whether to engage in systematic thinking the individual must be epistemically motivated (Kruglanski, 1989). Individual differences have been found to affect a person's epistemic motivation (De Dreu & Carnevale, 2003) and an intensified level of epistemic motivation has been shown, according to Stuhlmacher and Champagne, (2000) to decrease the level in which the individual will utilize a selective information processing effort. Epistemic processing and motivation are shown to

influence this processing of information by way of the individual's current emotional state (Van Kleef, Homoan, Beersma, Knippenberg, Knippenberg, & Damen, 2009).

The processing of information and the strategy used to process information is dependent upon the person's epistemic motivation and emotions and in turn, the person's basis for their behavior is on the preponderant affective state (Schwarz & Clore, 1983). This epistemic metacognitive process is considered the manager of the cognitive resources. The individual will engage this epistemic action and direct it to cognition (Brink & Lilljenfors, 2013).

Emotion and attention were described by Brinck (2001) as a perceptual component of metacognition which institutes the "experimental" element of metacognition involving the individual's emotions and attention, as well as their beliefs and feelings. The link between emotions and intergroup relations, as based upon functional theories is consistent with the idea that emotions can function as adaptive mechanisms and are thereby linked to the production of clear cognitive, behavioral, and physiological responses as are perceived to be challenging to environmental stimuli (Dasgupta, DeSteno, Williams, & Hunsinger, 2009).

The appraisal of groups, in particular those groups unrelated to intergroup relations, affect the information processing of the perceiver. Serving as internal signals, in an attempt to assist the individual to steer through outgroup threats, emotions have been shown to influence an individual's processing of information regarding outgroups. As argued by Bodenhausen et al. (2001) not unlike NFC, rapid action is influenced by the emotion of anger which promotes the individual's heuristic style of information processing and increases the reliance upon stereotypes. This is done, in an attempt to

quickly satisfy the individual's cognitive and emotional signals. Sadness and the need for caution, as argued by Dasgupta et al. (2009) are the only emotions shown to promote information processing which did not rely heavily on stereotypes.

Described by Koriat (2000) this process consists of information and theory-based judgments in which the individual will access a form of cognition which entails a high degree of consciousness and control. When epistemic actions are felt to be needed, the individual will desire a "distance to the goal" (Brinck & Liljenfors, 2013, p. 90). This action being directed toward the person's epistemic cognitive functions will "alert" them when an inadequate cognitive goal is being reached. The individual will then implement a plan to enhance and re-organize the information and quickly search for new information, in an attempt to repair the perceived insufficiency.

The social perspective on epistemic processes was investigated by Van Kleef et al. (2009) and it was proposed that emotion is a by-product of the epistemic process which can influence the person by acting as a catalyst in conveying information. Found to have an effect on in-group relations, socially based epistemic processes have been investigated as the processes pertain to outgroup relations as well. The interpersonal effects of the individual's emotions can largely develop with isolation, further solidifying the freezing effect of the epistemic process. Dependent upon the individual's motivation epistemic processes, emotions are found to influence judgment and decision making, both affecting outgroup and in-group relations (Van Kleef et al., 2009).

Finding the individual's epistemic emotions being developed within isolation, Van Kleef et al. (2009) argued he or she may be guided by not only their own emotions, but the emotions of others, dependent upon their epistemic processing. This finding may

be relevant to future research regarding the continuing attempt to keep the epistemic processes malleable regardless of the mind-set and emotions of others.

Proposing emotional contagion co-ordinates with the individual's contagion and interacts with social circumstances, Keltner and Haidt (1999) posited the reactions of an individual are predictive of the person's level of epistemic motivation. Social information and the emotional reaction of others have most commonly only been investigated in a social context. However, the emotional reaction of an individual may be dependent upon the dynamic appraisal process. Van Kleef et al. (2009) described by Allport (1953) an individual will make an effort to explain if their thoughts, feelings, and behaviors are prejudiced by true, actual, imagined, or implied preferences of others.

Social preferences and social dimensions, as described by Manstead and Fischer (2001) may be incorporated and specified as an emotional response in which the concept of social appraisal introduced as behaviors, feelings, and thoughts. The association between cognitive emotional appraisal and emotional experience was described by Mumenthaler and Sander (2012) as one in which the individual will assess the emotional event and at the same time be affected by the way others feel about the same situation. This epistemic occurrence was investigated (Mumenthaler & Sander, 2012) and found to influence the individual's self-reported emotions based upon the presented event.

Functional theories can also be relied upon in the consistent linking of emotion and intergroup relations. The linking is recognized as taking place when emotion is considered a mechanism which is flexible and malleable, in an attempt to create responses to external stimuli. The sought after responses result from the individuals attempt to alleviate ambiguity, competitiveness, or confliction via specific cognitive,

physiological, and behavioral actions (Dasgupta et al., 2009). Furthermore, Fisk (1998) described emotions as influencing an individual's cognitive processes when assessing outgroup members.

Promoting the reliance on stereotyping judgments, through epistemic processes, Bodenhausen, Sheppard, and Kramer (1994) argued both the emotions of anger and happiness are correlative. Dasgupta et al. (2009) investigated the primary way in which emotions increase stereotyping, finding that the emotions, anger and disgust had similar effects upon the individual's implicit attitude toward outgroup members. Implicit attitudes and stereotypes commonly function within the individual's subconscious. Dovidio, Gaertner, Kawakami, and Hodson (2002) maintained this to be especially noted in aversive racism. Finding larger effect sizes in a 2009 study, Dasgupta et al. argued the individual will show an increased level of implicit bias against outgroups. This occurrence was also noted even when the individual had not identified any previously existing biases against the group, until experiencing the emotions of disgust or anger. Additionally, a significant correlation was found between the incidental emotion of disgust and implicit anti-gay bias as well as bias against individuals who identified as Arabs as presented by Dasgupta et al. (2009). Dasgupta et al. (2009) argued, the significant impact of emotions on implicit outgroup evaluations, especially when implicit biases are applicable to the stereotypes and threats the individual has attached to the target group.

Essentialism

Using the inductive potential, the first element of the essentialist belief process has been identified as the process in which the individual uses inferences to allow the assumed knowledge of group membership (Rangel & Keller, 2011). Social categories are

considered as having an existence, reality, or ontological status which allows the perceiver to cognitively process members of another social group as having an underlying “sameness” or coherence which is immutable (Haslam & Levy, 2006; Rangel & Keller, 2011; Yzerbyt et al., 1997).

Haslam, Rothchild, & Ernst (2000) noted typically identified within the aspects associated with essentialist beliefs were categories comprising several dimensions of cognitive processing. One dimension is “judged naturalness” considered the process in which the individual judges the naturalness, immutability, and stability of another category. Further categories identified include, “rated uniformity” and “exclusiveness” (Haslam et al., 2000, p. 117).

Psychological Essentialism

Essentialism or essentialist thinking has been defined as the belief that all members of a particular social category, share stagnant, unchangeable, and a fixed underlying nature (Roets & Van Hiel, 2011). Essentialist thinking is exhibited by an individual who infers another’s core characteristics are easily identifiable by their group membership. According to Rangel and Keller (2011), the individual does not typically base their beliefs on a biological basis, but upon a person’s characteristics. It is more often a result of identifying the proposed correlates and consequences of psychological essentialism from which a person will draw upon to identify group membership. This would include the observed behaviors of others, the habitual attributes, and disposition assumed to be associated with the individual’s upbringing and background by assisting in explaining who the person is and what makes them who they are (Rangel & Keller, 2011).

Kashima et al. (2005) described the process of essentialism as one in which a person is considered to have the same essence-like and unchangeable characteristics, even more than those within the social group in which the individual was considered to have equal agency. As long ago as 1958, Campbell questioned whether essentialism was to be considered as the ontological status of social groups. Campbell argued the individual possessed particular “wholes” or sums which make up entities where others do not. Entitativity, claimed Campbell, (1958) was simply the degree in which a person will have the nature of an entity, or in other words, a real and tangible existence. Kashima et al. (2005) argued this concept was often taken for granted by which the individual believed others are more a real entity than that of a social group.

As long ago as 1924, Floyd Allport made references to social psychology as a practice in which the belief in the philosophical study of the being and its nature, existence, and reality, or ontological status of an individual is present. This as opposed to groups, argued Allport as reported by Yzerbyt, Judd, and Corneille (2004) was not essentially encompassing the psychology of human beings and should not be categorized as a contraindication to the psychology of the individual themselves. However, Yzerbyt, et al. (2004) presented Entitativity as a useful method to clarify how the ontological concept indicates the extent to which a group of individuals is a true and real entity.

Two aspects of entitativity are essentialism and perceived agency (Brewer, Hong, & Li, 2004). Psychological essentialism according to Hamilton (2007) was presented in 1992 by Rothbart and Taylor as an aspect of social categories, race and gender for instance, that are perceived by the individual to have their existence deeply entrenched in nature. Therefore, they are considered to have essential properties based

upon surface appearances and causal connections that cannot be changed by human intervention.

Kashima et al. (2005) described essentialism as the process in which an individual relates the inductive potential of another based upon one observation. This observation is attributed to a single social category and may be considered as one which makes the members of that social category analogous to each other, both in their appearance, but behaviors as well. This perceived group entitativity is utilized to form group impressions as opposed to individual perceptions.

An additional form of essentialism is that of conceptualized thoughts in which there is perceived inalterability or the belief the properties of the social entity targeted are not changeable by human intervention. Those individuals who prescribe to the entity theory are apt to believe the underlying characteristic of a social group or entity is the essence which is viewed as causal for the group's appearance and behaviors. This entity is therefore incapable of changing the underlying group membership, either easily or at all (Kashima et al., 2005).

Biological Basis for Essentialism

An element of the essentialist lay theory provided an explanation of the causal nature of essentialist beliefs according to Rangel and Keller (2011). These authors suggested a key element of conceptualization was essentialism and causal factors. Bastian and Haslam (2006) referred to this as a genetic determination factor of essentialism and explained how the lay theory of endorsing essentialism explains social perception.

As shown in research conducted by Bastian and Haslam (2006), Hoffman and Hurst (1990), and Keller and Bless (2004) the biological basis for essentialist beliefs

introduced both the plausibility of the reference to the genetic basis for essentialist theorizing as well. Additionally, these authors argued that the biological basis for the individual assigning attributes through essentialist processing was equal to the perception of naturalness.

Essentialist Process and Race

The essentialist theory of race addresses the theory that individuals view other races in totality, as an essence in which all person belonging to that race and share immutable and unalterable physical and psychological markings (Chao et al., 2013). When the essentialist processes are accessed, the individual is likely to determine the identity and category of the outgroup member as fundamentally alike. According to the theory, they will then use this identity to determine “inferences”, also referred to as entitativity (Roets & Van Hiel, 2011).

When discussing the essentialism of race, Hong et al. (2009) argued the individual will deny the “real” race as a racial essence. For some, contended Hong et al. (2009) the average person will often invent racial classification in an attempt to provide convenient and readily accessible labels for persons who are perceived to be unequal between groups. Some individuals will simply utilize the racial classifications as a form of convenience and quick NFC processes in an attempt to categorize others when social circumstances may be potentially challenged (Fairchild, Yee, Wyatt, & Weizmann, 1995).

Race as a social construct may be viewed as one which is arbitrarily fashioned by the individual secondary to social circumstances and historical events. This process being recognized as one which is malleable and fluid appears to provide for any differences the

individual observes between racial outgroups as those who do not represent the inherent differences between groups (Hong et al., 2009). Essentialism is considered a process in which the individual who believes in this feature of social group support the notion the social group can never be changed and therefore support and tend to form more robust stereotypes (Levy, Plaks, Hong, Chiu, & Dweck, 2001).

Essentialism and Social Categories

Dar-Nimrod and Heine (2011) argued that race and ethnicity might just be the most relied upon of social categories in modern times. Essentialism has come to be recognized as a productive catalyst in the activation and application of stereotypes (Pereira, Estramiana, & Gallo, 2010). Dependent upon the visually observed characteristics of another, the individual seeks categorization based upon clearly observed appearances. Visual characteristics in turn, allow the perceiver to assume all members appearing alike share the identical inherent essences (Piereira et al., 2010). Yzerbyt and Rogier (2001) claimed the essentialism process provides for the individual to perceive both similarities and differences in the outgroup member.

When observing the differences between categorization theories and essentialism, Medin, Goldstone, and Gentner (1993) discussed essentialism as the by-product process in which assumptions of similarities are made as a result of categorization. Based upon these assumptions of essence, those belonging to the group will also be assumed to have a deep quality of “likeness” such as in behaviors and values (Pierira et al., 2010).

Social categorization via the essentialist process has been found to further support the inferences an individual makes regarding which shared group members are thought to possess the same attributes and qualities of all others within the group (Pereira et al.,

2010). Social psychologists, such as Medin and Ortony (1998) considered essentialism to be a psychological process in which the individual's representation of others reflects their belief that others all share the same essence. Cognitive psychologists such as Hirschfeld (1996) argued that the cognitive biases an individual maintains allows for the creation of social categories as well.

The individual's essentialist beliefs may manifest through the implicit assumption that individuals possess regarding the structure and categories that surround them in the world (Gelman, Clay, & Gottfried, 1994). Haslam (2011) commented on Dar-Nimrod and Heine's 2011 research and claimed the findings provided a clear and articulate reasoning based upon the cognitive essentialist processing an individual engages in.

Racial Essentialism

Smith (2001) references racial essentialism as playing a significant role in the formation of prejudice. Ethnic nationalism according to Smith (2001) is one such form of psychological racial essentialism. Chao (2007) and No et al. (2008) discussed race as being a meaningful source of human division that was based upon the inferred essence of racial groups. It's suggested by utilizing an individual's race to engage in racial essentialism offers the person the opportunity to make judgment based upon what were believed to be fundamental and biologically clear differences.

This process, maintain Chao (2007) and No et al. (2008) offers the perceiver assistance in understanding and making sense of their social world by allowing race to indicate a member's abilities and traits. This social psychological reasoning regarding stereotyping and prejudice led researchers, Yzerbyt et al. (1997) to theorize the traditional view of stereotypical behavior, explanations, and rationalizing of stereotypes were

cognitive strategies used by an individual to simplify the processing of social information. Additionally, these cognitive strategies are thought to serve as a functional role for stereotypes by assisting the individual in rationalizing social situations (Yzerbyt et al., 1997).

The stereotyping process is more than the individual viewing others attributes as a list associated with a particular social category. This will take place as well as the individual performing an all-encompassing and underlying explanation linking all attributes together. This linking process provides the individual an account for the category association between stereotypical attributes and category labels. Social inequalities refer to unjust treatment that is rationalized based upon the Yzerbyt et al. (1997) explanation of essentialist behaviors and beliefs. Additionally, it's known the individual who makes essentialist inferences is more apt to harbor aversive racism, a covert and modern form of discrimination (Rodenburg & Boisen, 2013).

Culture and Essentialism

When perceiving an individual in an entitative way, in psychological essentialism, the individual is clearly perceived to be more entitative than others. When the individual's characteristics are perceived as being more consistent between two observations, as well as perceived as being more difficult to change, the individual will identify with these characteristics more so than those of another family or group membership. This was found to be especially prevalent in English-speaking and European cultures (Kashima et al., 2005).

When assessing the essentialism of social targets, culture appears to play a role in the moderations of the perceived essentialism of the target. In continental European

cultures, East Asian cultures, and English speaking cultures, the tendency to view an individual with possessing a greater perceived consistency is found predominantly in the English speaking cultures (Kashima et al., 2005). When assessing the perceived agency, those individuals within the English speaking cultures find the individual to have the most naturally attributed thoughts, intentions, yet for perceived inalterability, the culture does not appear to show a strong correlation, nor does perceived inalterability when considering the culture of the actors. This is thought to propose the individual is more essentialized than that of a group (Kashima et al., 2005).

Essentialism and Racial Categorization

Although not widely researched, the link between racial essentialism and racial categorization has been identified as an emerging neuroscience of culture and as an emerging field in social psychology, cognitive neuroscience, cultural psychology, and essentialism driven behaviors (Markus & Kitayama, 1991; Rule, Freeman, & Ahbad, 2013). However, racial categorization includes important psychological aspects and racialized perceptions (Chao et al., 2013) and is being researched and explored more at the present time.

In one study, Chao (2000) investigated the individual's tendency and willingness to categorize others as racially distinct through racial categorization, as one influencing several psychological aspects of race-based categorization (Chao et al., 2013). Haslam (2011) discussed the essentialist way of cognitive processing had, and will, have negative implications for social behaviors as well as social attitudes. The researchers proposed this theory following a path analysis being conducted using the structural equation modeling (SEM) measuring essentialist beliefs. Zagefka, Nigbur, Gonzalez, and Tip (2013) used

equation modeling software (EQS). This software specifically targeted to predict both perceived possibility of culture adoption by immigrants who serve as the minority and the level of identity threat the majority group participants experienced. Following the measurement, the results indicated those with essentialist beliefs had a significantly indirect effect for the “demand of culture adoption” (Zagefka et al., 2013, p. 63). Additionally, the SEM analysis indicated those with essentialist beliefs were simultaneously associated with negative perceptions about the possibility the outgroup members could eventually culturally adapt (Zagefka et al., 2013).

The results of the path analysis indicated, according to Pereira et al. (2010), the majority group member desired the minority population to accomplish the impossible which was directly correlated with prejudice. Essentialism is thought to further encourage inequality in both social and political power of one group over another (Pereira et al., 2010). These recent assessment tools have assisted in the current research on the epistemic process of essentialism and the measurement of its functioning.

The hypocedent to racial classification begins as early as childhood when children whose parents are from differing racial groups are assigned to one racial group considered as subordinate (Chao et al., 2013). This has been suggested as making the hypocedent to racial classification harmful. Chao et al. (2013) and Brunsma (2006) argued racial categorization has been shown to have significant social implications dating back to the day of slavery and requires constant consideration in social psychology today.

Essentialism and Stereotyping and Prejudice

Prejudice is largely defined as a negative attitude toward an outgroup or the individual outgroup members (Blincoe & Harris, 2009). Conger, Dygdon, and Rolleck

(2011) additionally described prejudice as a phenomenon in which society has addressed however interpersonal and race-based prejudice continues to exist. Furthermore, Conger, Dygdon, and Rolleck (2012) presented discrimination as a continuum in the employment arena, education, and housing front regardless of the current efforts of society to address these issues. Although strides have been made, the group-based solutions have not addressed the effects of racism and how to tackle the psychological aspects of adopting ways to look at the neuropsychological and cognitive aspects of this occurrence.

When addressing perceived group homogeneity, epistemic processes, stereotyping, prejudice, discrimination, and discriminatory tendencies, there has been distinguished an important association between the belief in social determination (BSD) theory and socio-cognitive concepts (Rangel & Keller, 2011). As early as childhood, Gelman and Wellman (1991) proposed the individual has a propensity for forming a “basic cognitive disposition” (p. 220) toward psychological essentialism. Essentialist beliefs, in which the individual believes in underlying social category “essences” being drawn upon in an attempt to assist in explain and rectifying sociocultural inequities is an important phenomenon (Keller, 2005).

In previous research the essentialist cognitive process has been shown to be present in children who have a firm understanding of the essences of others, and the distinction of those who are felt to be in-group and outgroup members. This epistemic processes are also known to reinforce the hypocedent principle that serves to reinforce white privilege (Chao et al., 2013).

The process of essentialism is one which is correlated with problematic social relations and includes the notion that cognitive essentialism deepens the social divide and

promotes social segregation (Haslam, 2011). Dar-Nimrod and Heine (2011) addressed the “broad implication” that cognitive essentialism has on understanding simple human diversity. Finding cognitive essentialism leads to the notion the individual’s epistemic process of essentialism warrants further review as it relates to being a catalyst to race relations.

Essentialist processing allows the individual to “attach” social distinctions, which may result in forms of prejudice and discrimination (Dar-Nimrod & Heine, 2011). Further, Haslam (2011) suggested this type of essentialism is not only included when considering racial differences, but also when considering those who have mental disorders, gender differences, and sexuality differences.

Although the empirical findings regarding the correlation between essentialist beliefs and prejudice are mixed, in 1954, researchers such as Allport speculated the individual with a prejudiced personality believed in an in-group essence which is a fundamental part of the prejudiced attitude. Additionally, the essentialist group justification is often the pre-cursor to outgroup as well as in-group hostility and conflict (Yzerbyt et al., 2004). In addition to the Keller (2005) research, a significant number of empirical studies have shown the individual who holds essentialist conceptions are more likely to endorse racial stereotypes, “misremember” minority group members through stereotypical notions, and many times, show less interest or concern in interacting with those from racial outgroups (Eberhardt, Dasgupta, & Banaszynski, 2003; Plaks, Stroessner, Dwek, & Sherman, 2001; Keller, 2005).

When addressing the individual who endorse the color-blind theory, it is known the person will believe an individual’s race should not be emphasized due to the

enhancement of group membership categorization, therefore reducing the individual's feeling of the need to "get to know" the individual as opposed to basing judgment upon the presented race. However, since the perception of the color-blind theory, social psychologists have been taking note of the backlash secondary to those individuals of color reporting feelings of being negated and dismissed as an entity (Rosenthal and Levy, 2012).

Belief in Essentialist Social Determination

Differentiation between the acceptance and judging behaviors, both in the in-group and outgroup scenario is described as a combined function of perceived similarity of the members. This is known to take place during the processing of outgroups as well as members who are considered to possess similar traits. This is accomplished by assigning the group members a category prototype. This assumption invites concern in that a group is confined to a perceived rational and moral social categorical representation. This categorical representation many times will result in a conflict of liberal norms and the injunction of generalization (Condor, 2006).

Yrzebyt et al. (2007) underscored the subjective essentialist behaviors and beliefs are not always based upon the biological features of another, but also include the individual taking into consideration the factors that profoundly and permanently shape a person. This lay theory, referred to as BSD, introduced the possibility the individual's personal characteristics are shaped by the "outside" person as they relate to an "immediate situation" (Rangel & Keller, 2011). Socially constructed thought processes such as these are known to play a part in the malleability of the essentialist's processes.

This is also observed when an individual attributes behaviors based upon social influence in societal and economic contexts (Rangel & Keller, 2011).

Investigating the individual's tendency toward the BSD is known as the individual believing a person's fundamental social character is shaped by social factors such as peer contact, upbringing, and socialization. Additionally, it is considered to constitute the belief that others personal essence is socially determined. This component of essentialist thinking is utilized by attaching ideological and epistemic processing, and in turn is involved in the tendency to stereotype others (Rangel & Keller, 2011). No et al. (2008) considered the belief in the social construction of race such as BSD suggests, implies race is an artificial grouping and is easily changed.

The BSD is specific to the perception of group characterization based upon social features and results in group homogeneity. This process then assists the individual in providing final and unambiguous answers (Rangel & Keller, 2011). Additionally, BSD offers the justification to the group's status in social hierarchy. The person with the belief of group homogeneity of social groups has a centralized belief pattern in which the specific social group is considered to have a common essence and underlying nature both leading to essentialism (Haslam et al., 2000; Yzerbyt, Rocher, & Schadron, 1997).

This lay theory is considered as one that can be related to social hierarchy and ideological constructs. These constructs enhance the viewed differences in individuals, groups, nations, and social dominance orientation (Rangel & Keller, 2011). Young, Sanchez, and Wilton (2013) argued that it is imperative to test the conditions that are indicative of essentialist thinking, and how and why they persist, as well as why essentialist thinking is particularly strong and relevant among high status groups.

Belief in Genetic Determinism

An additional lay theory in essentialist perception is the belief of genetic determination (BGD). Addressing a less complex structure than that of BSD, BGD focuses upon a strong endorsement of attentional focus being on the biological and genetic origins and how they make up a person's character. Both the BGD and BSD are considered as important contributors to the study of essentialist processing and socio-cognitive concepts, however, BGD is also considered a component in the perception of social group homogeneity (Rangel & Keller, 2011).

When investigating the role of "perceived" intelligence, the drive for success, and violence, it is known those who make more genetic attributions to an individual's character score higher when measuring traditional racism as well as modern or aversive racism. Additionally, noted is specifically the Asian-American population. Asian-Americans who held the belief that genetic essentialism is true, are more likely to find it increasingly difficult to relate to both Asian and American cultures in turn increasing the ambiguity of messages processed by both groups (Chao, Chen, Roisman, & Hong 2007; Jayatene et al., 2006, 2009).

Function of Lay Theories and Essentialism

Serving as a catalyst in socio-cognitive motives, essentialist thinking is known to assist in the explanation and justification of others behaviors and essence. Yzerbyt et al. (1997) argued this in part, would endorse stereotypes as well as justify the treatment of outgroup members and assist the individual in rationalizing social inequities. Referred to as "fundamental beliefs", this process serves three individual socio-cognitive needs (Jost, Glaser, Kruglanski, & Sulloway, 2003). The first is essentialist thinking, in which the

person is provided epistemic motives in which the desire for definitive answers is presented. Additionally, the person's ideological motives are met. These include assisting in justifying social inequalities. And lastly, the existential motives, referring to the person's desire to buffer any perceived threat to self. The reliance upon lay theories to explain racial differences is thought to enhance stereotyping and in turn lead to increased out-group judgments.

Consequences of Lay Theories and Essentialism

The lay theories of essentialist processing serve as a suppression-justification model of prejudice. The process endorses prejudice by those who are highly motivated to justify others and any ambiguous information. Additionally, this permits the expression of prejudiced attitudes as well as the expression of prejudiced attitudes, leading to the individuals believing they have authenticated negative reactions toward other social groups (Crandal & Eshleman, 2003).

Proposing the essentialist lay beliefs serve as status-preserving beliefs, Rangel and Keller (2011) highlighted the negative attributes associated with social groups and those who endorsed the lay theories of essentialism. It's suggested the endorsement of these theories could be the reaction secondary to the prejudiced attitude and the person's need to justify the activism of such attitudes.

Entitativity

Entitativity is described as being an epistemic process in which a collection of individuals are considered as being together and form a coherent group (Clark & Wegener, 2009). First introduced by Campbell (1958), the term refers to the nature of and entity which has a real and present existence. Entitative groups represent a singular unit

as compared to group who are perceived as less coherent. Perceived knowledge about the target group is shown to result in an increase in effort needed in the processing of new or different information gleaned about the group (Clark & Wegener, 2009). Entitativity, when considered as generalized beliefs, is known to be closely related to the act of stereotyping.

The conceptualization and estimates of probability of an individual possessing particular attributes, due to belonging to a group, or entitativity, is analogous to the individual attempting to identify a normative standard. In studies investigating social judgments and subjective probability, the individual's judgment is shown to be based upon one of three categories in the Bayes' theorem which offers the normative standard for all social judgments. One category in the Bayes' theorem suggests the conservative individual will give individualized information too little attention while entertaining a significant amount of influence from prior probabilities (Rasinski, Crocker, & Hastie, 1985).

Social entities on a wide scale are known to mirror the perception of "imagined communities". While considering the Gestalt approach to social entitativity this perceived similarity is one of four separate components, which include factors that enhance the perception of group entitativity. Included are the perception of the group having a common fate, salience, boundedness, and similarity, and the most important being the individual's perception of entitativity leading to the belief in a common fate of group members (Campbell, 1958).

In-Group and Outgroup Entitativity

Perceived group entitativity is described as the degree a group is perceived as a homogenous unit and is known as an important precursor when considering inter-group, in-group, and outgroup perceptions and stereotypical thoughts (Yzerbyt et al., 2004). Several empirical studies show the individual with negative attitudes or extreme opinions about an outgroup are significantly more entitative than those who are not (Grzesiak, Feldman, & Suszek, 2008). In addition to these findings, Whildschut, Insko, and Pinter (2004) argued the perception of groups considered as entitative may lead to significant negative impressions and distrust of outgroups. Additionally, the phenomena coined “collective retribution” by Denson, Lickel, Curtis, Stenstrom, and Ames (2006) is thought to be the result of judging a group as an entitative group as well (Phelps, Ommundsen, Turken, and Ulleberg, 2012).

Entitativity is indicated as being significant in the perceiver’s beliefs of group similarity. A group whose members look the same, are perceived as thinking and acting the same, thereby considered a highly entitative unit. This unit is then assumed as one having many similarities (Crump, Hamilton, Sherman, Lickel, & Thakkar, 2010). Entitativity ratings are found to be higher dependent upon how often group members interacted, according to research performed by Crump et al. (2010). When investigating similarity among group members, this same study indicated entitativity ratings are subject to more strongly predicted significance when information about the similarity of the group members was presented (Crump et al., 2010).

In congruence with this research when utilizing Campbell’s (1958) four dimensional categories to test the level of entitativity of the group members it is shown

that in-group influences affect the level of the identification within the group as well (Castano, Yzerbyt, & Bourguignon, 2003). The individual will use epistemic entitativity by using the degree of similarity within the group, the situational salience of the in-group, the clarity of boundaries, and the degree of similarity within the group to base judgments upon (Castana et al., 2003).

When considering in-group behaviors and EEE processing, the individual considers their own group as being highly entitative. These group members will in turn exclude group members who may deviate from the perceived group norms. This may be considered as a motivation in the freezing of the EEE processes. These findings might lead to the expectation that in-groups may be considered in more entitative terms and outgroups be considered in a more homogenous manner (Crump et al., 2010).

The effects of valuation and devaluation in the individual's goal-congruent activities are known to be more valued and epistemically sought while goal-incongruent activities are devalued. This occurs within group members as it does with outgroup perception. These processes are shown to be in line with the epistemic process of NFC and a preference for group homogeneity or entitativity (Lalwain, 2009).

Perceived group homogeneity lends itself well to the individual's preference for predictability and certainty, both thought to be pre-cursors to the NFC (Fox & Elraz-Shapira, 2005; Roets & Van Hiel, 2010). Group level information and the perception of group homogeneity is shown to be in those individuals with a high NFC (Roets & Van Hiel, 2010). Entitativity, as presented by Ableson, Dasgupta, Park and Banaji (1998) may be identified as an agency described as the individual who perceives a social being as being agentic. Agentic social beings, those who exhibit actions toward a common goal

and consist of differentiated yet interacting parts, are considered entitative. The individual who epistemically processes to the extent in which an entity is as one, and which consists of differentiated parts that are entirely interdependent upon each other is considered agentic (Lickel et al., 2000). When the agentic individual has previously examined the entitativity of either in-group or outgroup members, the process entails the recognition of the group as a whole as opposed to individuals.

Groups may present as those that vary along a continuum of entitativity, with some that are perceived by others as having a higher propensity for entitativity than others. Groups with a high level of entitativity are also perceived differently than groups with a low level as noted by extensive research. Groups with members that are perceived to all look the same, as well as behave the same, and think the same, are more likely to be considered a highly entitative unit (Crump et al., 2010).

An individual's motive for social identification may elicit stronger levels of entitativity to reduce the individual's uncertainty. Because the individual is in constant search for symmetry when faced with both assimilation and differentiation, group members may find a greater bond with those with which they feel assimilated. This feeling of assimilation further raises the level of perceiving an increased differentiation of others who are perceived as being different. This may be considered an additional precursor to the freezing of the EEE processes (Brewer & Roccas, 2001).

A person with high levels of entitativity is known to make exacting and harsh evaluations of those thought to be negative group members. Those that have a higher level of perceived entitativity are argued to possess a higher social identity value. The outgroup member that is perceived as being a stand-out outsider, or "black-sheep" and

are members of a highly considered entitative group are found to pose a more serious threat than even those from groups considered more inconsequential (Lewis & Sherman, 2010).

Perceived Agency and Entitativity

Perceived agency occurs when a social being is recognized as having mental states which include intentions and beliefs. Those who hold theories of agency will, when referring to an individual or group, consider this group as one with intentionality and autonomy. When utilizing group agency, the group is thought to be as one and is responsible for its action. Perceived agency, as it refers to expectations about shared group intentions and goals is found to increase perceived entitativity by the extent to which the perceiver attributes dispositional tendencies (Morris, Menon, & Ames, 2001; Welbourne, 1999). When a group is thought to be entitative, one member can be considered responsible for another member's actions therefore suggesting a conceptual association between agency and entitativity (Lickel, Schmader & Hamilton, 2003).

In 2000, Lickel et al. provided empirical evidence suggesting essentialism and agency depict the interrelated aspects of the individual's perceptions of social objects as true entities. This evidence followed a study in which the judgments of collections of people were examined as a perceived entitativity. The results indicated the extent to which social entities were thought to have a shared goal was strongly correlated as were a common outcome and frequent interactions with other members. Additionally, this same study provided evidence of perceived similarity and un-alterability although the correlation was smaller than those implicating assumed common goal and fate as with agency.

Entitativity, Stereotyping, and Prejudice

In highly entitative groups the individual traits that are abstracted are associated with the group, as well as the members of the group, thus providing a stereotype. When the perceiver has processed the stereotype, the group is continued to be processed as a whole as opposed to individual members (Crawford, Sherman, & Hamilton, 2002). When highly entitative groups are cognitively processed, the perceiver develops considerations beyond the characteristics of individual group members. This, and additional associations provide for a more difficult time recollecting any specific information about the individual group member. Groups who have a high level of entitativity are considered as being those who are more associated with an increased number of prototypic representations.

Demonstrated by Welbourne, Harasty, and Brewer (1997) entitativity may reconcile the association between the group members being stereotyped and the more generalized opinions of the individual group members as being whole representatives of the group. The intensity of the relationship between stereotyping and generalizations depends upon the strength of the expectancy the individual holds regarding the stereotype (Stangor & McMillan, 1992). This takes place in addition to assessing the motivation the individual must have in an attempt to form simple and coherent impressions of the group (Crawford et al., 2002).

The individual with perceived entitativity will be positively correlated with the expectancy strength of a group as well as stereotyping (Brewer & Harnisty, 1997). When considering the groups expectancies, this finding is important in that it shows the individual group member is more likely to be evaluated in terms of the expectancies of

others and those expectancies are based upon the group dynamic when the group is considered highly entitative. In turn, this group is seen as one in which increased stereotyping behaviors are in tandem with an increased level of assimilation of the individual as compared to the group stereotype (Hilton & Hipple, 1990).

Yzerbyt and Schadron (1994) argued that one of the most pertinent aspects to entitativity and prejudice was the suggestion the stereotype was not only descriptive of social groups but also the explanation of the group which one might consider to be their essence. Researching the relevance between entitativity and stereotyping, an important question to be answered is assessing when the individual is perceived as a member of a group and when they are perceived as an individual. This is done in an attempt to identify how both individual and group-relevant information affects the individual's impression of others (Crawford et al., 2012). This will provide additional information as to when the individual processes only to the point of behavioral-trait association further encouraging the freezing of the EEE processes (Crawford et al., 2012).

When a group is considered in the context of a contrasting entity, the perceived information is known to motivate the formation of a stereotype and in turn, results in the formation of the maximal differentiation between the two. This has been shown to occur even when the group in question is not considered as one that is highly entitative (Crawford et al., 2012). The information the individual processes traits will stop at a level of individual trait inference when processing information about members from a low entitative group. When the trait of another has been abstracted from their behavior the supplementary links to the given group and its members are not completed (Crawford et al., 2002).

Individual traits are associated with groups as whole entities when considering the process of stereotyping and traits. Crawford et al. (2002) demonstrated this when noting an individual who cognitively processes behaviors performed by members of a highly entitative group, processes the traits of others as those that become associated with the individuals within the group. Based upon a continuum or “in-line” group impressions, as opposed to individual members, these epistemic processes provide for an increasingly high association with the direct members of the group.

Those with underlying explanations for stereotypes, as described by Crawford et al. (2002), identify substantially with highly entitative groups or those with highly entitative characteristics. Groups who are highly entitative are known to perceive in-group members as those who are more effective in supporting a similar agenda in order to fulfill personal needs. The in-group members are in turn protected by others in an attempt to guard against perceived external threats (Moscatelli & Rubini, 2014). Social psychological research indicates the phenomena of stereotyping and prejudice between inter-groups might benefit from a closer examination of the entitative processes. Relatively few research studies have been dedicated to the exploration of the individual’s beliefs and subsequent influence upon judgment of groups as a whole entity (Dasgupta, Banaji, & Abelson, 1999).

Groups with an increased entitativity level are more apt to glean an in-group strategy which leads to discrimination and the member maximizing the differences between the in-group and the outgroup. This leads to increased discrimination as a result of the member utilizing maximum effort to gain in-group profits. As a result, high entitativity groups are found to be less cooperative with outgroup members and

demonstrate little concern with equality and joint efforts to improve an outcome. This also leads to the perception that outgroups are more harmful and easily produce more negative attitudes (Moscatelli & Rubini, 2013) in the individual perceiver.

Entitativity is reflected as a reference to the psychological cohesiveness in social groups when salient cues of perception are presented. This can include both physical and special similarity. Additionally, it is expected individuals who share membership in a particular racial group are also considered to share similar race-related characteristics (Campbell, 1958). Minority groups are considered to be highly entitative. As demonstrated by Dasgupta et al. (1999), individuals belonging to non-entitative groups are more likely to be individualized by out-group members, more so than those from highly entitative groups.

Social groups who appear to be interconnected and unified are less likely to be considered by perceivers as having individual differences and are more apt to focus upon the groups invariant similarities. Furthermore, the influence of perceived group entitativity encourages the notion the groups may engage in aggressive and harmful actions against members of outgroups. The understanding of the malleability of the EEE processes and the development of stereotypes in particular is an important topic when investigating individuals who are presented with new or unfamiliar social groups (Dasgupta et al., 1999).

Social groups who resemble each other are expected to have shared characteristics which are invariable. These beliefs are ones that play an important role in both the development of new stereotypes in which perceivers will search for a typical member to assist in the explanation to not include the members as those who are perceived as

atypical (Dasgupta et al., 1999). Salient physical properties, provide the individual with the tools thought needed in order to develop stereotypical mind sets that have been amenable to salient physical properties. These physical properties are shown to relate to the assumption of psychological assimilations as well (Dasgupta et al., 1999). This argument is in tandem with Campbell's (1958) presentation suggesting that physical similarities might be considered as overt manifestations of the underlying psychological nature of the group. The creation of stereotypes may be related to the perceiver attempting to derive their beliefs from observable features and characteristics of the group. Cognitive associations, between both physical and psychologically assumed characteristics may present additional justification of the individual's freezing of the EEE processes in the individual's attempt to protect and guard against newly presented information.

The development of prejudice with regards to outgroups was demonstrated by Dasptuga et al. (1999) as being accurate for entitative groups and are considered as being those that are "active agents" poised to engage in harmful judgments and actions against outsiders. These findings are parallel with the Campbell's (1958) argument that even when group-relevant knowledge is absent, when an out-group members are considered similar, the perceived purposeful organisms can appear as threatening to those observing from outside of the group. This phenomenon has been extensively researched since the original postulation by Campbell (1958) and numerous researchers have demonstrated that group interactions are interspersed with distrust and competition (Dasgupta et al., 1999). Inter-group relations and the entitative process continue to be researched in an attempt to understand and reduce stereotyping and prejudice.

Entitativity, Essentialism, Stereotypes, and Prejudice

Yzerbyt et al. (1997) proposed two factors that reinforce each other in the individual's perception of groups. These factors include the level of organization and similarity of the group, also known as entitativity and the essence of the group which references the perceived and detected similarities, also referred to as essentialism. Well documented are the reactions of an individual and their subsequent EE behaviors toward not only their in-group but outgroups as well. The entitativity of a social group is found to encourage the perceiver to conjure an underlying essence for others, thus providing an account for the individual's observed regularities and irregularities.

This process could inspire the perceiver to induce a causal essence in which the group is viewed as that in which observed regularities are noted. Another view is the designation of the deep characteristics viewed to be possessed by a social group are likely to reinforce the individual's search for organization and similarities and therefore result in the individual construing the group as an entity (Yzerbyt, Corneille, & Estrada, 2001).

When considering the role of entitativity and information processing and behaviors, researchers have explored multiple copulations of the intertwined processes of social perceptions (Dasgupta et al., 1999; Hamilton, Sherman, & Lickel, 1998; Yzerbyt, Castano, Leyens, & Paladino, 2000; Yzerbyt, Rogier, & Fiske, 1998). As early as 1996, Hamilton and Sherman demonstrated the individual perceiver will engage in observable differing mental operations dependent upon the assumed entativity of the encountered target. These findings, in part, are analogous with the concept of essentialism as a whole.

The theory based concept of essentialism according to Murphy and Medin (1985) and Medin and Ortny (1989) often refers to the layperson's belief that many categories

possess essences. The perceiver often utilizes concepts that are grounded in essentialist implicit theories. More recent research indicates this to be the case in lay people holding essentialist theories living things, but not about the human itself. Essentialism, as it relates to social categories, for example, Italians, Jews, or a group at a sporting event (Murphy & Medin, 1985; Medin & Ortny, 1989) others are often treated as those of a “natural” type of group and the notion of the true essence. In turn, it is rare for the individual to process the group members as individual artifacts. This social categorization is viewed as a consequence of the individual’s established needs, desires, and conventions when based upon the concept of essentialism (Rothbart & Taylor, 1992).

When allowing for the notion of entitativity and essentialism it’s important to contemplate the connection between the two processes. Entitativity as defined by Campbell (1958) was described as the degree to which an individual has the ability to consider the nature of an entity as one having a real existence. This notion was explored by Yzerbyt et al. (1997) and was referred to as the impact of numerous group properties regarding the individual’s judgment of entitativity. The distinction between entitativity and essentialism within the perception of group’s domains has been shown as having reminiscent characteristics of other distinctions in social psychology. Subjective essentialism indicates the stereotype, in addition to being considered as a convenient means to facilitating the individual’s dealing with a confusing environment, also serves the individual by providing an important subjective meaning to the surrounding world (Oaks, Haslam, & Turner, 1994; Yzerbyt et al., 1997).

Stereotypes are known to function as the individual’s enlightening due to their perception of the stereotype supplying them with additional information to be added to

the existing set of interrelated information that has already been possessed. These stereotypes, being perceived as interconnected information, assist the individual in compiling a more complete list of attributes that in turn is perceived as assisting in the more thorough description of a social group (Yzerbyt et al., 2001).

Additionally, these cues can encompass the basis for the individual's understanding of the relationships among the group member's attributes. Yzerbyt et al. (2001) argued the linking of not only observable features but the individual's deeply inherent characteristics are involved. This association may assist in the justification and understanding of an individual's aptness to steer towards making social arrangements based upon the representation of social divisions.

Neuroscience and Race Relations

Neuroscience and culture is an evolving field of research in which cultural differences and behavior are investigated as they relate to neural activity and circuitry. The method of neuroscience is especially important when considering social perception (Mason & Morris, 2010) Social scientists have long depended upon the investigation of galvanic skin response or non-specific brain activity via the use of the electroencephalogram (Aragona, Kotzalidis, & Puzella, 2013). Important to this research is the inclusion of the neural processes, as they relate to the individual's EEE processes. In an attempt to provide the answers to questions and problems entailing the processes of behavior, brain functions, and race, Kubota, Banaji, and Phelps (2012) and Rule et al. (2013) investigated and reviewed the capacity of cultural neuroscience, the insights, and breakthroughs of past and current research.

The benefits of understanding neuroscience as it relates to race can be seen by observing both the plasticity and capacity for the individual's ability to adapt. Rule et al. (2013) claimed the brain can become static, in other words processes are known to freeze, such as the EEG functions. Being considered the invention of the individual's genes and innate biological copulations, recent studies indicate the experience an individual has and/or the exposure to such circumstance that they experience can be the pre-cursor to both structural and functional changes in the brains design (Han & Northoff, 2008).

Human brain genes, and innate biological processes, are shown to be involved with the individual's experience and exposure to situations and are considered viable instigators of functional situational changes within the brain (Han & Northoff, 2008; Rule et al., 2012;). In a study conducted by Freeman, Rule, Adams, and Ambady (2009) the individual was found to possess cognitive neuropsychological processes in which the cultural dispositions of an individual influence both the behavior of the individual and the brain function of that person. Found as well was evidence that American participants were apt to endorse dominant values and in turn, behaviors would be exhibited in a more dominant way. This was corroborated by Magnetic Resonance Imaging (MRI) scans, mirror neurons and electrophysiology, showing the involvement of the amygdala and the anterior cingulate cortex (ACC; Aragona, Kotzalidis, & Puzella, 2013; Kubota et al., 2012).

The medial prefrontal cortex (mPFC) is linked to the stimulation of assessing others intentions through the use of reasoning about the out-group member's intentions. These tasks are assessed by the perceiver in an attempt to explain the others motive and hidden intentions. Additionally, when analyzing the assessment of another's mental state,

the mPFC has been linked to inferences about the out-group member's traits and dispositions. Involved in the EEE processes the mPFC is among the neural activation centers which is implicated as a strategy mechanism when consciously interpreting others mental states and disposition through attribution (Mason & Morris, 2010).

The amygdala and its connections to the cortex is the area of the brain that is considered the region most affected when related to race attitudes and social decision-making. These areas are also affected during the social processes of learning fear, processing emotionally relevant stimuli, attention, and memory. Another region frequently reported in neuroimaging studies of race is the ACC dorsal region of the brain. This area monitors for the individual's response and any response competition. If conflict is noted the ACC will engage the person's executive control (Botvinick, Braver, Barch, Carter, & Cohen, 2001) allowing for the justification and reasoning of judgment.

The psychological model of brain systems and racial attitudes suggest there are two stages involved when an individual processes racial stimuli. Neuroimaging indicates the amygdala and the fusiform gyrus (FFA) are two such systems. The amygdala is involved in the detection of racial stimuli and the evaluation of such as indicated by both physiological responses and the implicit association assessment (IAT). Additionally, shown is the FAA region quickly processing race information, especially in response to in-group race faces, and the amygdala is linked to implicit race preference and judgments of trust (Kubota et al., 2012).

Neural Activity and EEE Seizing

The anterior cingulate cortex (ACC) in the brain is known to play an important part in the individual epistemic essentialist entitativity and the seizing of perceived

information. The ACC is described as being the alarm in which the need for conscious analytic processing alerts the individual to perform further conscious analytic processing (Mason & Morris, 2010). Additionally, the ACC is known to be sensitive to a variety of perceived external conflict. Specifically, how an individual recognizes and processes the need for deliberation. Cognitive neuroscientists have long studied the need of the individual to engage in the controlled processing (Mason & Morris, 2010). This process, the ACC, as argued by researchers may play an important role in both detecting conflict as well as signaling the individual to proceed in a top-down method of control (Botvinick et al., 2001).

When conflict is introduced, ACC activity is increased. This conflict may include the perceiver as one who is experiencing various forms of conflict. For instance, this has been noted when the individual's expectations are somehow violated. This conflict will in turn, be indicated by an increase in the blood oxygen level dependent (BOLD) and signal this region of the brain to increase the individual's neuro processes when confronted with ambiguous problems that lack obvious solutions. The need for an individual's timely deliberation is likely signaled by the need to prevent automatic processes from taking the lead in the individual's social sense making (Mason & Morris, 2010).

When detecting conflict or an inconsistency, the individual's neurological process of ACC will detect this encounter and signal the dorsolateral prefrontal cortex to assist in drawing more time in conscious deliberation. This process can also be related to the individual's NFC in an efficient and expedient manner relating back to the seizing of the EEE processes. Believed to support executive functioning, that is described as a function in which reasoning is a prevalent result, this process allows for the neural activation in

which the individual will engage in conscious manipulation of information even when it's no longer present in the sensory environment (Mason & Morris, 2010).

When attempting to quickly assess incoming stimuli social neuroscientists tend to agree when a behavior is considered ambiguous or inconsistent with a previously formed schema the ACC alarms other neural activation centers. This alarm signals the perceiver to use careful deliberation when attempting to decipher the meaning of the stimulus and integrate additional information prior to forming causal judgment (Mason & Morris, 2010). However, in the seizing and freezing of the EEE processes, the individual may make a conscious or unconscious effort to ignore these signals.

Amygdala Activation and Gender

Derntl et al. (2012) argued the processing of faces caused the stronger and more sustained activation of the amygdala when processing outgroups. Findings between the activation of this processing when referencing outgroups, as well as the differences in the processing between genders, has been heterogeneous and inconsistent in the past. However, when comparing two culture specific male and females, Derntl et al. (2012) presented findings in which the Asian male, when processing male outgroup members showed a significantly stronger bilateral amygdala and neural activation than that of Caucasian males. Furthermore, Asian females responded similarly. This same result was presented when comparing Caucasian genders, finding there was no significant gender specific differences in amygdala and neuro activation, Derntl et al. (2012) do argue the female from a western region shows greater amygdala activation when associated with implicit emotional processing of out-group members. The two emotions showing the most significant amount of neuro activations in these females were empathy and humor.

However, these two emotions have not been shown to have a noteworthy correlation to stereotyping and prejudice (Dasgupta et al., 2009).

Both females and males exhibit only slight differences in the lateralization in amygdala activation. This difference might reflect differing cerebral strategies between genders when processing emotions. This slight difference may then be manifested through behavioral or functional outcomes. However, the male gender demonstrates a significant correlation between amygdala activation to fearful stimuli. Although the female gender also showed significant neuro activation, the data presented shows the male gender dominating this activation (Derntl et al. 2009).

Culture and Neuroscience

Both cultural and cognitive psychologies are interdisciplinary fields. Mason and Morris (2010) argued the consideration of culture when investigating behaviors through neuroscience is important in that culture has been shown to permeate the individual's attributions and in turn will provide a more complete account of underlying cultural differences. Furthermore, the inclusion of cultural neuroscience research may assist in the better understanding of the EEE processes among groups.

Both cultural neuroscience and the EEE processes have encouraged the consideration of the role of cultural functions in the individual's brain, as well as its development. This further investigation may begin to breed and contribute to the relatively new field of cultural neuroscience. When considering cultural neuroscience as well as cognitive neuroscience, it important to consider these as interdisciplinary fields. Doing so will offer the researcher the two fields which create ties with both the

background of the diverse fields, but also an enhanced understanding within both of these heterogeneous fields.

Culture and ethnicity can both affect how the individual behaves as well as affect how they view and interpret the world through attentional processes and cognitive processing. For instance, the Westerner in particular those born and raised in the United States are found to possess dominant thinking and behaviors that are positively reinforced by assertive and skepticism of authority (Rule et al., 2013).

When exploring cross-cultural differences, the cognitive neuroscience methods of investigation are presented as worthy additions to the social psychology approaches by providing additional insight into revealing differences that have in the past gone undetected when using traditional behavioral assessments (Mason & Morris, 2010). Brain imaging and cognitive neuro-scientific measures will allow for the additional exploration in the cognitive processing of individual's EEE processing and may provide further insight into the freezing of neurocognitive activation centers.

Summary and Conclusions

Studies of the EEE processes emphasize its functions as a proxy to the individual's cognitive processing of individuals and groups based upon perceived similarities. Prior research has indicated the epistemic processes are a catalyst in motivating the construction of perceived knowledge resulting in the individual's act of applying subjectivity to social reality (Kruglanski, 1989, 2004). In addition, these studies draw attention to the individual's tendency to engage in quick judgments based upon perceived knowledge via the need for closure. Epistemically, the need for closure assists

in providing a desirable outcome to ambiguous information in a quick and easy fashion, thereby making any additional information as an inconvenience (Rangel & Keller, 2011).

The EEE processes are also known to possess a tendency for permanence through the epistemic need to protect information through the act of freezing. This epistemic freezing is done in an attempt to strengthen an individual's current knowledge and protect the epistemic process from receiving any further contradictory information (Roets & Van Hiel, 2011b). Recent studies indicate the relationship between brain systems and the individual's EEE processes (Mason & Morris, 2010; Rule, Freeman, & Ambady, 2013) and introduce the importance of further investigation into the mechanisms involved with the unfreezing of the EEE processes.

Furthermore, these studies have provided insight into how the individual calls upon the EEE processes to assist in the judgment of outgroups, in particular racial outgroups, as well as the outgroup members who are perceived to share unchangeable characteristics based upon the receiver's perception of the group as a whole. Little research has been provided in the area of social cognitive neuroscience and social psychological discipline into what, if anything, might be considered a facilitator in the unfreezing of the EEE processes as well as act as an agent in the continued malleability of the EEE processes. Chapter 3 will outline the quasi-experimental study design that was chosen for this exploration including the rationale, population, sampling procedure, data collection strategy, constructs, and threats to validity.

Chapter 3: Research Method

This study adds to the body of research on the neurological processes of epistemic essentialist entitativity (EEE) as they relate to racial relations and outgroup processing. The purpose of this study was to assess the effectiveness of an 8-week multicultural psychosocial educational course on outgroup behaviors, customs, and beliefs on the malleability of the EEE processes. This chapter is a detailed description of the study's research design. The following topics are covered: the descriptors and setting from which the sample was taken, the justification for the sample size, an explanation of the instruments to be used, ethical considerations, data collection, and data analysis plans.

Research Design and Rationale

A quantitative study was appropriate to examine the cognitive state of the EEE processes to measure any movement in the participants' EEE processes. The data obtained from the sample can be generalized to the population of interest. In keeping with the essentialist theory of race (Chao et al., 2013), intergroup contact theory (Allport, 1954; Pettigrew, 1998), and cognitive need for closure (Webster & Kruglanski, 1994), I examined how cognitive EEE (dependent variable [DV]) may be affected by the academic introduction to psychosocial differences, practices, and social norms of various cultures. The cultural psychosocial differences, practices, and social norms were introduced through the presentation of educational material in a standard one semester, 8-week, multicultural psychosocial college course that served as the independent variable (IV). I investigated whether participation in a psychosocial culturally rich educational course curriculum promoted the unfreezing or malleability of the cognitive EEE processes.

To assess the effect of multicultural psychosocial information on the EEE processes, I measured the depth of cognitive salience by way of unfreezing and malleability prior to and following the introduction of the IV. The IV, an established college course, followed the college-wide course outline of record in which the major course objectives included the participants' introduction to the history, contributions, cultural patterns, and social customs of major ethnic groups in the United States. Additionally, the participants taking the course examined the cultural impact of socioeconomic class and the cultural influence on time and space orientation. This course, offered by an accredited university, consisted of one meeting per week over an 8-week term; each meeting lasted 2 hours and 50 minutes.

I employed a quasi-experimental nonequivalent groups design in an attempt to answer the research questions. A quasi-experimental design was appropriate for this study because although participants were randomly selected for the comparison group from a list of undergraduate students, those participating in the course were not randomly assigned (see Blanton & Jaccard, 2008). The participants who received the IV (the multicultural psychosocial educational course) were those who willingly registered to take the class for college credit.

The nonequivalent groups design was appropriate because participants in the course and the comparison group were administered a pre- and posttest. The unfreezing and malleability of the EEE processes, in which the individual becomes more aware of the incompleteness of his or her internalized representations of another culture or outgroup, as well as an increase, decrease, or stagnation of belief dimensions in uniformity, inherent core dimensions of race, and informativeness (Roets & Van Hiel,

2011b) served as the dependent variable (DV). The DV was measured using the Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011a).

Tadmor et al. (2012) showed the effect of multicultural experiences in enhancing simple cognitive generalized motivation rather than more specific cognitive processing at deeper levels, such as those related to the epistemic essentialist processes. Additionally, Tadmor et al argued the individual shows a cognitive tendency to endorse stereotypes through consistent and long-term exposure to cultural experiences. This same research indicated the individual may become somewhat receptive to searching for additional new material following this consistent exposure. However, studies have also shown that the brief exposure to multicultural indicators has not been consistently correlated with epistemic change (Tadmor et al., 2012).

Epistemic change has been demonstrated through the simple mentioning of a name in which cultural and semantic attributes are present, as shown in a 2007 study by Uhlmann and Cohen. Brief exposure to multicultural indicators, and epistemic change are powerful enough to activate stereotypes thought to be secondary to the epistemic essentialist entitativity processes becoming stagnant. This practice, frequently seen in discriminatory hiring situations, has been shown by Ahmed (2010) to be consistent with aversive racism and the freezing of the epistemic essentialist entitativity processes regardless of the brief or long-term exposure to multicultural experiences.

This study contributed to previous research through the introduction of the consistent culturally rich educational material, which in turn addressed the exploitation of heuristics in metacognition. Addressing metacognition, as argued by Brinck and Liljenfors (2013), allows for the examination of information and theory-based judgments,

which are known to involve high degrees of consciousness and control. Additionally, as noted by Conger et al. (2012), metacognition serves as the classical conditioning-based explanation for adverse race-elicited emotions that have been noted in individuals when racially relevant stimuli are introduced. Any exploitation of the heuristics of metacognition have been addressed in this research with the consistent introduction of the multicultural psychosocial educational material over the course of the study.

Methodology

A convenience sample of 67 college students who had not previously engaged in or registered in a psychosocial multicultural course constituted the comparison group (Group A); 67 participants who were registered in a multicultural psychosocial course constituted the treatment group (Group B). After providing informed consent, both groups were asked to complete the Essentialist Entitativity Scale (Roets & Van Hiel, 2011) prior to the start of the 8-week course. The participants in Group A were not enrolled in a multicultural psychosocial educational course and had not taken this type of course in the past. Group B comprised those students registered in an 8-week multicultural psychosocial course. Following the 8-week course, both Group A and Group B were asked to complete the Essentialist Entitativity Scale (Roets & Van Hiel, 2011) to assess any malleability in EEE processes. The data were analyzed using the IBM Statistical Package for the Social Sciences Version 21 (IBM SPSS -21).

Population

The population included 9,218 college students enrolled for the 2015-2016 academic year in the Northeast region of the statewide college. The population included adult male and female students in their first, second, third, or fourth year. I obtained

approval from Walden University's institutional review board (IRB # 01-14-16-0397528) and from the institution where participants were enrolled. The total sample consisted of 134 male and female college students age 18 years and older. The average enrollment in this course had consistently been between 70 and 120 students per semester.

Sampling and Sampling Procedures

The comparison group (Group A) was recruited via a college-wide list of enrolled students ages 18 years and older. The potential participants for Group B were contacted via e-mail inviting their participation. The sampling criteria included students 18 years and older who were enrolled in a multicultural psychosocial course or who had not previously participated in such a course. Group A consisted of a convenience sample of 67 students who were not currently enrolled in and who had never taken a multicultural psychosocial college course. Any student participants who took part in a previous multicultural psychosocial educational course were excluded.

I conducted a G*Power analysis to determine the required number of participants based upon an effect size of 0.5. This effect size was chosen to represent the effect or significance of the multicultural psychosocial course on the participants' posttest results. An intermediate effect size of 0.5, a power of 0.80, and $\alpha = 0.05$ resulted in a total sample size of 102 participants, 51 in each group. When the G*Power analysis was conducted based on an effect size of 0.5, power of .90, and $\alpha = 0.05$, the total sample size was 134 participants. I knew that there were 67 students enrolled in the multicultural psychosocial course for the semester in which data collection was to take place, so I chose this sample size.

Procedures for Recruitment, Participation, and Data Collection

The recruiting procedure for the comparison group consisted of accessing the list of all students enrolled in the college following the approval of Walden's IRB and the institution's IRB. The convenience sample of Group B included those students registered for the multicultural psychosocial course. The demographic information collected was the participant's age, year in school, gender, and ethnicity. Class attendance and absences were additionally noted throughout the study. A pretest was administered face to face via paper and pen to both groups prior to the term start, and a posttest was administered at the end of the term. Data were collected using the Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011a; see Appendix B) to measure the participants' level of EEE beliefs.

In addition to the Essentialist Entitativity Beliefs scale post-test, I asked Group B participants to complete a debriefing document providing information regarding ethnic and cultural support groups, volunteer opportunities with various cultures, and a list of local resources catering to specific cultures and ethnicities. I included a questionnaire inquiring as to whether the student experienced any significant interactions with members of outgroups during the study and the number of class meetings attended during the 8-week course.

Instrumentation and Operationalization of Constructs

The IV was the 8-week multicultural psychosocial educational course that adheres to the college's course of record (COR; see Appendix A) as mandated by the state of Indiana and the educational instruction accreditation body as well as the required milestones that were addressed throughout course delivery. The educational material

delivered was developed by course developers qualified under the Indiana state board of education and certified course writers. The statewide approved core curriculum was written as an introductory social science college course and included lecture and video material encompassing multiple cultures, the customs within the cultures, as well as culturally based variations in attitudes, values, language, and gestures. The course was approved to be offered statewide at 32 campuses and was open to a student population of approximately 200,000 students.

The course consisted of weekly, 2 hour and 50 minute sessions of exposure to various cultures, interaction with others representing these cultures, lectures, and video for a total of 8 weeks. The participants were assessed throughout the course on the material presented. These assessments were a part of the multicultural psychosocial course and were required by the college. These assessments were not included in this study's data analysis. A sample of content questions developed by Hays and Erford (2014) is included in Appendix B. The data collected from the Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011a; Appendix B) were collected prior to the course and after the course and were the only data analyzed for the purpose of assessing any movement in the EEE processes.

Essentialist Entitativity Beliefs Scale

The Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011a) was used to measure participants' current beliefs about racial groups and their homogeneity, informativeness, and inherence on a 7-point Likert scale of 1 (completely disagree) to 7 (completely agree). Written permission was not needed to use this scale as indicated in the PsycTESTS databank permissions stating the test and its contents may be reproduced

and used for noncommercial research and educational purposes without seeking written permission (Roets & Van Hiel, 2011a). I agreed to distribute the scale in a controlled manner as mandated by the use of assessment permissions (Roets & Van Hiel, 2011) and only to the participants engaged in the study.

The scale was previously used by Roets and Van Hiel (2011a) in a study of undergraduate and adult participants of Flemish descent and was developed based on the three components of essentialist entitativity: uniformity, informativeness, and inherent core of racial groups. The scale was loaded on a single factor and demonstrated convergent validity when considering an alternative measure of essentialist entitativity (Roets & Van Hiel, 2011a). Additionally, divergent validity was indicated when measuring entitativity beliefs considered not to be essence based, a form of essentialist processing.

According to Roets and Van Hiel (2012), this scale was found to be significantly related to racial prejudice and indicated a superior level of predictive value when compared to other scales measuring essentialist entitativity. Internal consistency was shown to be good and was demonstrated across the samples to which it was administered as indicated by alphas of .78 to .85 (Roets & Van Hiel, 2011b). Additionally, the scale has been implemented in varying cultures in the United States (Haslam & Levy, 2006) and Canada (Haqanee, Lou, & Lalonde, 2014).

Data Analysis Plan

I used IBM SPSS -21 to conduct the statistical analysis. The data cleaning consisted of repeatedly screening for any data abnormalities such as missing data or patterns that may require further examination. All examination dates, duplication of

records, or inclusion of those in the comparison group who previously engaged in a multicultural psychosocial educational course were carefully observed. I used IBM SPSS-21 to screen the data via histograms and scatter plots, and double data entry was done as an additional method of screening.

To measure the internal consistency to test for a unidimensional measure a Cronbach's alpha was conducted. There were no additional tests required to measure unidimensionality; therefore, an exploratory factor analysis was not run. Lastly, the means and standard deviations of the variables were conducted and ANCOVA assumptions were confirmed (Schmider, Ziegler, Danay, Beyer, & Buhner, 2010). In order to address the following research questions, I ran a repeated measures ANOVA.

Research Question 1: Is there a difference in the depth of cognitive salience through the malleability of epistemic essentialist entitativity processing between college students who have participated in a multicultural psychosocial educational course compared to those who have not?

H01: There is a difference in the depth of cognitive salience through the malleability of epistemic essentialist entitativity processing between college students who have participated in a multicultural psychosocial educational course compared to those who have not.

H02: There is no difference in the depth of cognitive salience through the malleability of epistemic essentialist entitativity processing between college students who have participated in a multicultural psychosocial educational course compared to those who have not.

Research Question 2: Is there a difference in the epistemic essentialist driven depth of cognitive salience through the malleability of the EEE processes that can be noted in the perception of the psychosocial norm for race between college students who have in a multicultural psychosocial educational course compared to those who have not?

H12: There is a difference in the epistemic essentialist driven depth of cognitive salience through the malleability of the EEE processes that can be noted in the perception of the psychosocial norm for race between college students who have participated in a multicultural psychosocial education course compared to those who have not.

Ha2: There is no difference in the epistemic essentialist driven depth of cognitive salience through the malleability of the EEE processes that can be noted in the perception of the psychosocial norm for race between college students who have participated in a multicultural psychosocial education course compared to those who have not.

Threats to Validity

External Validity

A random selection of participants in the comparison group assisted in addressing the external threat of any lack of generalization (Blanton & Jaccard, 2008). However, as the participants engaging in the multicultural psychosocial course consisted of a convenience sample, a concern with generalization was recognized. Additionally, the interaction of personal factors or treatment effects, which describe the extent to which the IV might differentially affect the participants, was considered an external threat to validity.

The ecological threats to external validity to be considered included the Hawthorne effect in which the extent of the extra attention provided to the participants

during the 8-week course serving as the IV limits the generalization to situations when the attention is not present (Chiesa & Hobbs, 2008). This possible threat was controlled for by assuring the IV was presented in a uniform manner as outlined in the COR.

Internal Validity

To control for the internal threat of maturation and history, the participants were asked to complete a debriefing document (see Appendix C) in which any historical events or natural maturational changes were considered for possible future research. An example question this debriefing document included was to inquire if during the 8 week research period the participant personally encountered or engaged in any significant or noteworthy interactions with an individual or group of individuals who they consider members of an outgroup which may have affected their answers on the post-test. Additionally, the testing and instrumentation threats was considered by removing any incomplete questionnaires. Regression to the mean was addressed through the attention paid to extreme outliers on the individual scores.

Construct Validity

The Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011a) measured the construct of essentialist entitativity. In the development of this scale an exploratory factor analysis indicated the structure of the essentialism construct measured with high primary loadings. These loading ranged from .37 to .75 describing the 16.3% of variance on the items reflecting inherence, uniformity, and informativeness. The items addressing immutability, necessity, stability, and naturalness showed a variance of 8.63%. With this high internal consistency being demonstrated, as well as the empirically distinguishable findings, it was shown that racial essentialism consists of two broad dimensions

demonstrating a powerful predictor of racism (Roets & Van Hiel, 2011a). These findings assisted in decreasing the threat to construct validity.

Ethical Procedures

The agreements to gain access to participants were obtained from the Walden IRB and the institution's IRB. Prospective participants freely registered for the multicultural psychosocial course. Prospective participants who registered for the course as well as those in the comparison group were presented with an informed consent.

The multicultural psychosocial course consisted of weekly two-hour and 50-minute classroom lectures, videos, and multicultural education as outlined in the COR (see Appendix A). Participants were informed of their legal rights in terms of understanding the nature and purpose of the study, their rights to consent to participate, and their right to retract from participation at any time during the study without fear of penalty, consequence, or harm.

Both the comparison group participants and the participants in the class were asked to use the last four numbers of their phone number to be noted on their pre- and post-tests. This number was written on the informed consent and the participants were asked to note this number on both their pre- and post-test to serve as their private identification number. The informed consent forms were kept off-site in a locked file cabinet separate from the pre- and post-tests for the duration of the study.

Data collected from pre- and post-tests were also stored off-site in a locked file cabinet. I was the only person with access to both the informed consent forms and data. The data and the informed consents will be destroyed after being kept securely off-site for five years. There were no issues related to conflict of interest or power differentials.

Ethical concerns relating to data collection included early withdraw from the course and poor attendance by the participants. To address these possibilities, the participants were asked to follow the college policy of attendance, equaling class point penalties for unexcused absences. The participants withdrawing early would have been contacted via e-mail to inquire as to their possible continuing participation in the course as would any student would be, in accordance with college-wide retention efforts.

Summary

A quasi-experimental design was implemented due to a non-randomized sample of all participants. A non-equivalent group design was appropriate in that a pre- and post-test were administered to two groups of participants. These two groups consisted of a comparison group and a group of college students who participated in a multicultural psychosocial course. The curriculum of the class included an introduction to various cultures and ethnic outgroups during an 8-week period of time as per the approved course curriculum.

A convenience sample of the target population, college students 18 years and older served as the participants, and encompassed two groups with 67 in each group for a total sample size of 134. The sample of participants were those college students who enrolled in the multicultural psychosocial course and the comparison group was comprised of student participants recruited via a college-wide list of currently enrolled students. The comparison group participants were invited to participate via an e-mail invitation using the contact information provided within the enrolled student roster.

In order to address the research questions as to if the introduction of a multicultural psychosocial educational course can be instrumental in the unfreezing or

malleability of the EEE systems in those who participate and those who do not, I examined the role of consistent multi-cultural education and experiences and how they affect the EEE systems. The findings may have positive social change implications for informing the potential use of consistent and required multicultural psychosocial course throughout the educational grades of kindergarten through higher education.

Grounded in the essentialist theory of race (Chao et al., 2013), intergroup contact theory (Allport, 1958; Pettigrew, 1998), and the NFC (Kruglanski & Webster, 1996), I utilized the empirically sound Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011a) to discover if differences exist in EEE processing in and between students participating in a multicultural psychosocial education course and those who did not. The results are discussed in the following chapter.

Chapter 4: Results

The lack of movement or the stagnation of the EEE processes has been considered a catalyst for the development of stereotypical assignments to members of outgroups (Kruglanski & Webster, 1996). Cognitive processing, as related to the epistemic processes after the introduction of multicultural psychosocial educational material, had not been adequately addressed in the literature. The purpose of this quantitative research study was to investigate possible differences in the depth of cognitive beliefs about racial groups through EEE processes in college students who participated in a multicultural psychosocial course and those who did not. A nonequivalent control group design was used to assess college students' beliefs about racial groups before and after an 8-week multicultural psychosocial course. Students who did not participate in the course served as the comparison group.

The research questions and hypotheses addressed the possible difference in the depth of cognitive beliefs about racial groups between college students who participated in a multicultural psychosocial educational course compared to those who did not. This chapter contains the data collection procedures including the timeframe for data collection, participant recruitment, and response rate. Demographic information and statistical findings are presented in tables to display the study's results.

Data Collection

The potential participants were contacted via a school-wide invitation on electronic boards/television screens located throughout the college campus for a period of 2 weeks prior to the next scheduled multicultural psychosocial course that began the week of March 14, 2016 and continued through May 10, 2016. Additionally, I made a

Blackboard invitation to students already registered in the multicultural psychosocial educational course. Those registered in the course who chose to participate served as Group B. Participants who were not registered to take the course served as the comparison group (Group A). The participants responded to the invitation by attending sessions in which they were asked to provide informed consent and complete a pretest. There were no incentives offered.

Pretest data collection consisted of a face to face pretest administration of the 12-item Essentialist Entitativity Beliefs Scale developed by Roets and Van Hiel (2011a). The pretest was administered from March 7, 2016 through March 11, 2016. All 134 participants indicated they had not previously participated in the multicultural psychosocial educational course or in any other multicultural psychosocial course as a college student.

The posttest reminders were displayed beginning the week prior to the final class. These reminders were presented via monitors throughout campus and in the classroom Blackboard venue. Both Group A and Group B were invited to one of three meeting times in which they were asked to complete the Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011a) posttest. The meeting times were offered on three different days and in three different meeting rooms on campus between May 4, 2016 and May 9, 2016. Following the completion of the posttest, all participants were given a three question questionnaire (see Appendix C) that addressed any possible adverse events taking place during the testing period that might be considered as possible threats to internal validity. No adverse events were reported by any participants in either Group A or Group B. Additionally, all participants were given a participant resource list consisting

of community cultural and ethnic support groups, volunteer opportunities within various cultures, and culturally specific resources (see Appendix D).

There were no discrepancies in the data collection as presented in Chapter 3. After each of the three meetings, the surveys, demographic information sheets, consent forms, and poststudy questionnaires were transported in brown inner-office envelopes to a locked file draw off site. All documents will remain in this secure location for 5 years. There were no markings identifying participant information on the outside of the envelopes. Each was marked with the envelope contents and Group A or Group B as appropriate. The pre-and posttests were matched to each participant using the last four numbers of his or her phone number.

Descriptive and Demographic Characteristics

Study participants consisted of 134 college students 18 years of age and older enrolled in a community college in the Northeast United States. The descriptive and demographic descriptive data were cleaned and all outliers were analyzed and corrected where appropriate. A post-hoc power analysis was conducted based on the 134 participants and an effect size of 0.5, resulting in power of .89.

As shown in Table 1, the total participant sample included 52 male students (38.8%) and 82 female students (61.2%). Table 2 shows the race the participant identified with. A chi-square analysis revealed no significant differences in race between participants in Group A and Group B.

Table 1

Participant Gender Groups A and B

Gender	%	<i>n</i>
Male	38.8	52
Female	61.2	82

Table 2

Participant Race Groups A and B

Race	%	<i>n</i>
White	42.5	57
Black or African American	25.4	34
Hispanic or Latino	14.9	20
Asian	8.2	11
Native Hawaiian or Pacific Islander	3.0	4
Two or More Races	6.0	8

Table 3 shows the participants (Group B) college grade level as well as the comparison group's (Group A) college grade level. A chi-square analysis revealed no significant differences in the age of participants in Group A or Group B.

Table 3

Participant Year in School Groups A and B

Year	%	<i>n</i>
Freshman	17.2	23
Sophomore	33.6	45
Junior	32.8	44
Senior	16.4	22

The ethnic and gender demographics of the 67 participants in Group A, the comparison group, are shown in Table 4. The mean age of the participants in Group A was 29.9 years of age.

Table 4

Demographic Characteristics of Comparison Group (Group A)

Characteristic	<i>n</i>	%
Ethnicity		
White	28	41.2
Black or African American	20	29.4
Hispanic or Latino	10	14.7
Asian	5	7.4
Native Hawaiian or Pacific Islander	0	0
American Indian or Alaska Native	0	0
Two or More Races	4	5.9
Other	0	0
Gender		
Male	29	42.6
Female	38	55.9

Table 5

Year in School of Comparison Group (Group A)

Year in School	<i>n</i>	%
Freshman	11	16.2
Sophomore	22	32.4
Junior	22	32.4
Senior	12	17.6

Table 6 shows the ethnic and gender demographics of Group B participants. The mean age of participants in Group B was 28.1 years old ($SD = 8.7$) compared to participants in Group A, whose mean age was 29.2 years old ($SD = 10.1$).

Table 6

Demographic Characteristics of Course Participants (Group B)

Characteristic	<i>n</i>	%
Ethnicity		
White	29	43.3
Black or African American	14	20.9
Hispanic or Latino	10	14.9
Asian	6	9.0
Native Hawaiian or Pacific Islander	4	6.0
American Indian or Alaska Native	0	0
Two or More Races	4	6
Other	0	0
Gender		
Male	23	34.3
Female	44	65.7

All races were not fully represented in both Group A and B as per the demographic data of the state of Indiana and the United States census data (United States

Census Bureau, 2010, 2014) as neither group included a participant of American Indian or Alaska Native descent.

In the state of Indiana, as of 2014, the White population comprised 86.1%, which was an increase from 2010 when 84.3% of the population identified as being White. Those individuals identifying as Black or African American were 9.6% of the population. This total was also an increase in the Black or African American population from 2010 when 9.1% of Indiana's population identified as members of this race. American Indian and Alaskan natives in Indiana totaled 0.4%, Asian members represented 2.0% of Indiana residents, and Hawaiian or other Pacific Islander group members represented 0.1% of the population in 2014. Indiana residents who identified as being two or more races decreased in 2014 and totaled 1.9% of the state's population. This was a decrease from the 2010 census data when 2.0% of Indiana residents identified as being two or more races (United States Census Bureau, 2014).

According to the United States Census Bureau (2010), the U.S. demographic structure was estimated to consist of 76.3% of the population identifying as White and 13.7% as Black or African American. Additionally, the U.S population was represented by 5.9% of Asian descent, 1.7% as American Indian or Alaska Native, and 0.4% Native Hawaiian or other Pacific Islander. Those within the U.S. population identifying as two or more races equaled 5.2%.

Multicultural Psychosocial Educational Course

The multicultural psychosocial course was administered over an 8-week period consisting of weekly meetings lasting 2 hours and 50 minutes each. No adverse events took place during the delivery of the course. All participants in Group B continued to

participate in the course for the full 8-week period. There were no reports of adverse events during or following the 8-week period, nor were there any environmental influences noted by any participants in the poststudy questionnaire (see Appendix C).

Results

The hypotheses asserted that through the malleability of the EEE processes the depth of cognitive salience and the perception of the psychosocial norm for race would differ between college students who participated in a multicultural psychosocial course and those who did not participate in the course. To test these hypotheses, an ANCOVA was performed after the participants completed the EEE Scale (Roets & Van Hiel, 2011a) before and after an 8-week multicultural psychosocial course in which 67 of the participants (Group B) received psychosocial information and instruction regarding multiple cultures and perceived outgroups. A comparison group of 67 participants (Group A) was composed of college students who did not participate in the multicultural psychosocial course. Following administration of the Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011a) posttest all data were entered into IBM SPSS -21 for analysis.

Results of an independent sample *t*-test showed that the mean score of the EEE Scale (Roets & Van Hiel, 2011) between the comparison group ($n = 67$), Group A ($M = 4.08$, $SD = 1.81$) and participant group ($n = 67$), Group B ($M = 4.02$, $SD = 1.88$) was not significant $t(132) = .187$, $df = 132$, $p > .05$.

A one-way ANCOVA was performed to examine any significant differences between the two groups. The assumptions of an ANCOVA were met such that data were collected from two independent groups and displayed homogeneity of variance.

Additionally, for the IV, the relationship between the DV and the covariate was linear, and the linear relationship was parallel, therefore satisfying the assumption of homogeneity of regression. The covariate was independent of the treatment effects. Internal consistency of the EEE scale (Roets & Van Hiel, 2011a) was analyzed using Cronbach's alpha with results indicating a reliability coefficient of .72. A 2 (group) x 2 (pre-post) multivariate ANCOVA was conducted. The multicultural psychosocial course served as the IV and the post-test scores of the items contained in the Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011a) served as the DV. As measured by the Likert scale items, the level of the participant's depth of cognitive salience and cognitive beliefs as related to racial groups were noted (see Table 8).

Age was a covariate to control for participants' life experiences. This covariate was chosen based upon research that found level of individual entitativity is related to life experience, group membership, and social identification (Brewer & Roccas, 2001; Crump et al., 2010).

An ANCOVA was run to compare any malleability in the EEE processes as measured by the EEE pre-test, between the comparison group (Group A) and the participant group (Group B). The results revealed a significant difference, $p < .05$ $F(1,132) = 10.6$, $p = <.001$. Additionally, the results indicated that the malleability or movement in the EEE processes, as measured by the EEE post-test, for those in Group B who participated in the multicultural psychosocial course ($M = 47.5$, $SD = 3.73$) was statistically different than those in Group A who did not participate in the multicultural psychosocial course ($M = 47.7$, $SD = 5.32$), as shown in Table 7. A Bonferroni test

indicated that the adjusted means for Group A and Group B were 46.8 and 46.2, respectively.

Table 7

Between Groups EEE Posttest Results

Group	<i>M</i>	<i>SD</i>	<i>n</i>
Comparison Group A	47.7	5.32	67
Participation Group B	47.5	3.73	67

While continuing to control for the covariate, the age of the participants, an ANCOVA was conducted on each the analysis of the post-test for each of the 12 items of the Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011). The differences between the groups on all 12 scale items of the post-test were significant. (see Table 8).

Table 8
Between Groups EEE Posttest Results by Item

EEE Scale	<i>M</i>	<i>SD</i>
Item 1. Members of a racial group are usually very similar.		
Group A	4.56	1.66
Group B	2.16	.863
Item 2. If you know to which racial group someone belongs, you know a lot about his/her personality		
Group A	4.02	1.63
Group B	1.31	6.78
Item 3. Despite apparent differences between members of the same racial group, in essence they are the same.		
Group A	4.40	1.75
Group B	2.01	.945
Item 4. Members of a racial group usually are identical in many respects.		
Group A	4.07	1.77
Group B	1.95	.842
Item 5. Membership of a racial group largely determines someone's identity.		
Group A	3.68	1.66
Group B	2.85	1.36
*Item 6. Members of a racial group share only superficial attributes, but actually they are quite different.		
Group A	3.67	1.77
Group B	5.55	.909
*Item 7. Members of a racial group usually differ a lot from each other.		
Group A	3.25	1.51
Group B	5.44	.892
*Item 8. Knowing that someone belongs to a racial group, is not sufficient to judge a person.		
Group A	4.74	1.52
Group B	6.62	.775
Item 9. Members of certain racial groups share a large number of underlying characteristics besides their superficial resemblances or differences.		
Group A	4.85	1.35
Group B	3.34	1.37
*Item 10. Members of a racial group often have not much in common.		
Group A	3.07	1.25
Group B	4.23	1.14
*Item 11. Membership of a particular racial group says nothing about a specific person.		
Group A	4.34	1.63
Group B	6.38	1.23
*Item 12. Members of certain racial groups are often very different although they might look similar at first glance.		
Group A	3.70	1.64
Group B	5.86	.935

Note. $n = 67$, for Group A and Group B. *Items 6,7,8,10, and 12 are reverse coded. .

The test of between-subject effects in the one-way ANCOVA are displayed in Table 9 for each of the 12 items in the post-test Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011a). These results indicated that for each of the 12 post-test items there was a statistically significant difference between the groups. Please see Appendix B for the scale items. This difference was noted in the results by item. The mean score of Group B and the post-test item scores were significantly lower following participation in the multicultural psychosocial course and significantly higher on those items that were reverse coded. These results indicate movement or malleability of the EEE processes following participation in a multicultural psychosocial educational course.

Table 9

Between-Subject Effects of the EEE Posttest by Item

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>ES</i>
Item 1. Members of a racial group are usually very similar.	169.4	1	169.4	244.6	.65
Item 2. If you know to which racial group someone belongs, you know a lot about his/her personality.	171.3	1	171.3	188.0	.58
Item 3. Despite apparent differences between members of the same racial group, in essence they are the same.	137.1	1	137.1	179.9	.57
Item 4. Members of a racial group usually are identical in many aspects.	145.6	1	146.6	179.6	.58
Item 5. Membership of a racial group largely determines someone's identity.	28.1	1	28.1	24.3	.50
*Item 6. Members of a racial group share only superficial attributes, but actually they are quite different.	63.4	1	63.4	87.1	.39
*Item 7. Members of a racial group usually differ a lot from each other.	91.0	1	91.0	131.2	.50
*Item 8. Knowing that someone belongs to a racial group, is not sufficient to judge a person.	53.8	1	53.8	70.1	.34
Item 9. Members of certain racial groups share a large number of underlying characteristics besides their superficial resemblances or differences.	62.3	1	62.3	45.9	.26
*Item 10. Members of a racial group often have not much in common.	37.8	1	37.8	35.2	.21
*Item 11. Membership of a particular racial group often have not much in common.	148.8	1	148.8	144.0	.52
*Item 12. Members of certain racial groups are often very different although they might look similar at first glance.	91.7	1	91.7	116.3	.47

Note. Items 6, 7, 8, 10, 11, and 12 are reverse coded.

* $p < .01$.

Summary

The statistical analysis supported the research question asking if there is a difference in the depth of cognitive salience regarding racial groups and if there is a difference in the perception of the psychosocial norm for race between college students who have participated in a multicultural psychosocial educational course compared to those who have not. Each group differed significantly on all items with item 10 on the EEE scale, “Members of a racial group often have not much in common” (Roets & Van Hiel, 2011b) showing the greatest statistical difference between groups following the 8-week period, $F(1,2) = 35.2, p = < .001$.

When noting the effect size for each post-test item between groups, the difference in the item answers within the total sample varied. The pre-test and post-test answers on item 1 showed the largest mean difference of approximately 65%. Item 1 asked if the participant considered members of racial groups to be very similar (Roets & Van Hiel, 2011b). The least amount of variance in the pre-test and post-tests answers, although it may be considered moderate, was an approximate 21% difference in the mean score for the item which asked the participants their belief that members of racial groups often times do not have much in common (Roets & Van Hiel, 2011b).

When asked their thoughts regarding the belief that members of racial groups share only superficial attributes and are usually quite different, the largest mean difference (63%) was noted between the participants pre- and post-test answers. The covariate, the pre-test question with the least amount of influence at 27% was noted when participants were asked their beliefs regarding members of certain racial groups sharing a large number of underlying characteristics in addition to superficial differences or

resemblance. These findings reveal that there is a significant difference in the depth of cognitive salience through the malleability of the EEE processing between college students who have participated in a multicultural psychosocial course compared to those who have not as asked by the research question.

The following chapter will include an interpretation of the study's findings, limitations, potential implications for positive social change, and recommendations for future research in the area of the cognitive EEE processes as they relate to individuals' belief in racial and cultural differences and the role the cognitive EEE processes play.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to assess the effects of an 8-week multicultural psychosocial educational course on an individual's depths of cognitive beliefs about racial groups and the depth of cognitive salience that could be noted in the perception of the psychosocial norm for race as indicated through the malleability of the EEE processes. The findings indicated a statistically significant difference in the movement of the EEE processes with the introduction of a culturally informative and rich course and the participant's cognitive and salient beliefs about race. The EEE processes were shown to be malleable by the measurement of the participant's beliefs. Those participants who did not take part in the multicultural psychosocial course did not show any statistically significant movement in EEE processes over the 8-week period.

This study was conducted to investigate the malleability of an individual's EEE processes after being solidified during an individual's life maturation, which is known to lead to the freezing of the EEE processes (Kruglanski & Webster, 1996; Pirttliä-Backman & Kajanne, 2001; Roets & Van Hiel, 2011). The malleability of the EEE processes was investigated through the introduction of culturally rich information regarding the similarities in different races as well as the differences within races regardless of their superficial similarities, such as appearance and racial categorization.

Interpretation of Findings

Research in the area of the EEE processes has highlighted the function of these processes as a substitution for an individual's cognitive dispensation. An individual's processing of both individuals and outgroups is known to be based on perceived similarities (Roets & Van Hiel, 2011b). When addressing perceived similarities, research

has indicated that the individual is apt to view members of outgroups as essentially the same in their behaviors, beliefs, and thought processes based on their physical characteristics and racial category (Roets & Van Hiel, 2011b). Additionally, studies have indicated an individual's epistemic processes are a powerful incentive while forming and constructing perceived knowledge regarding outgroups (Kruglanski, 1994). The outcome of the application of this subjectivity into social reality is due to EEE freezing and stagnation resulting in the individual grouping outgroup members who appear the same or identify with a particular ethnic group (Kruglanski, 1989, 2004).

The theoretical groundwork for the study was the essentialist theory of race (Chao et al., 2013), NFC (Kruglanski & Webster, 1996), and intergroup contact theory (Allport, 1954; Pettigrew, 1998). The essentialist theory of race refers to the individual's EEE processes becoming stagnant or frozen, especially those involved with essentialism (Chao et al., 2013). NFC (Kruglanski & Webster, 1996) refers to the individual's cognitive epistemic need to engage in quick inferences and those that are most convenient. Intergroup contact theory also assisted in examining whether there was an epistemic essentialist drive depth of cognitive salience by examining the EEE processes following the introduction of a multicultural psychosocial course (Allport, 1954; Pettigrew, 1998).

The findings of this study indicated that the seizing and freezing of the epistemic and depth of cognitive salience through the EEE processes can become malleable following the introduction of culturally rich and informative material. Although an individual may theoretically engage in the NFC through intergroup contact, the essentialist individual's EEE processes may be changed or moved with the introduction of culturally informative information regarding the members of a perceived outgroup.

This study's finding indicated that the depth of cognitive salience had been changed, and malleability of the EEE processes had been revealed. The essentialist theory of race (Chao et al., 2013) suggests that the EEE processes may become frozen and stagnant. The findings in this study support this theory as indicated by the comparison group's minimal movement of the EEE processes as shown in their posttest results. With the introduction of multicultural psychosocial educational material, this study was grounded in intergroup contact theory by providing an open arena for the course participant group to address current and previously held beliefs about outgroup members. Additionally, the data supported NFC (Kruglanski & Webster, 1996) by which an individual engages in quick, convenient inferences that may be slowed through the intergroup contact theory. NFC was indicated in the posttest data where the participant group provided significant evidence of the cognitively driven consideration of essence-based differences in outgroup members as compared to the pretest data.

Previous literature addressed the epistemological attitudes and beliefs of an individual's metacognitive systems of knowing (Hofer & Pintrich, 1997); those epistemological systems consist of beliefs about nature as well as perceived processes of knowing. Epistemic strategies serve as the individual's knowledge-based regulatory validation system in which the intake of information is received. Additionally, these processes are known to assist the individual in making ethnic categorizations, which they perceive as social reality (Roets & Van Hiel, 2011b). Supporting the previous literature, the pretest data indicated that both Group A and Group B differed only slightly in the participants' perceived processes of knowing and conscious or subconscious perceptions of ethnic categorizations. I assumed the volunteer sample of participants provided

accurate information viewed as the individual's social reality by the participant's responses to the pretest and posttest survey.

Epistemic cognition (EC) has been found to be a significant component of human cognition as well as the epistemological processes (Chinn et al., 2011). Epistemological attitudes serve as an important component of an individual's ability to ascertain the validity of information that has been received and cognitively processed. When presented with interrelated topics, the individual's current belief system will consider a perception as truth. The understanding of all of these factors contributes to an individual's epistemological attitude (Chinn et al., 2011).

Described as an occurrence in infancy (Kruglanski et al., 2006), the cognitive epistemic processes the individual utilizes are based on ambiguity, lack of information, and assumption. This study included the introduction of additional and new information regarding various racial groups in an attempt to unfreeze or make malleable the individual's EEE processes by presenting new and previously unknown thoughts, attitudes, and characteristics about differing racial groups. The results of this study support prior research suggesting that the EEE processes may be affected by consistent exposure to learning experiences and interaction with and about those in perceived outgroups.

Limitations

External validity was considered a primary limitation based on previous experiences participants may have had prior to the study. Additionally, the degree of uniformity of both groups prior to the multicultural psychosocial educational course was considered as a possible threat to internal validity. This possible selection threat was

addressed by asking the participants in the comparison group not to participate in any multicultural educational courses for the duration of the study. Because it was not possible to thoroughly examine the degree of participants' current level of essentialism based on previous experience with members of outgroups and their previous and current environmental influences, generalizability of this study's findings is not possible. However, the results may be generalizable to men and women of various ages and ethnic backgrounds who have experienced a variety of environmental, social, and psychological influences when considering the introduction of intergroup contact and psychosocial multicultural information.

The pretest data provided information regarding the participants' current state of their EEE processes. I did not consider how previous experiences with members of outgroups may have affected each participant's level of cognitive salience and processing of these experiences. I addressed another confounding variable through a posttest question asking participants to report any positive or negative interactions, life-changing events, or trauma they endured during the 8-week period of the study. Participants in Group A and Group B reported no personal life-changing events, trauma, or negative interactions with outgroup members during their participation in this study. The participants' pretest scores were appropriately controlled for statistically through the application of the ANCOVA to account for prior life experience, age, and sociocultural environment that may have influenced the individual's current EEE status. Participants who took the multicultural psychosocial course experienced an opportunity to address any personal prejudice or assumptions regarding outgroup members. I assumed that participants would be honest and forthright in their responses.

Recommendations

This study provided statistically significant findings regarding the malleability of the EEE processes between two groups while considering pretest EEE beliefs and cognitive salience about racial groups. Although I considered the age of participants as a covariate, future research might address other covariates as well. Investigating gender differences may offer additional insight into the movement or malleability of the EEE processes between men and women. Gender may prove to be an important consideration in future research in an attempt to assess the differences in the malleability of the EEE processes.

Given that the freezing of the EEE processes is known to occur early in life (Roets & Van Hiel, 2011b) and has been shown to protect the information an individual currently processes, investigating the age of participants may offer additional knowledge about the depth of the individual's solidification of the EEE. Additionally, future studies should include elementary and middle school participants to measure their beliefs about race through the EEE processes following a multicultural psychosocial course.

Implications for Positive Social Change

This study contributes to positive social change by providing statistical support for how the EEE cognitive processes regarding the individual's beliefs and cognitive salience about racial groups can be affected by a multicultural psychosocial course. This knowledge could serve as an important catalyst in demonstrating that given the opportunity to engage in an open and informative education that addresses not only the differences but similarities of outgroups, an individual's EEE processes may be malleable to change.

In a multicultural society, the categorization of anticipated behaviors, intelligence, and attitudes based upon a person's race and culture and an understanding of the neuro-psychological processes an individual possesses would add additional knowledge to an individual's beliefs about outgroup members. An investigation of the individual's processing of differences in an attempt to address the particular process of how he or she arrives at a certain judgment may enhance knowledge and awareness that his or her perceived solidified beliefs might be changed.

As has been shown in the present study, the current beliefs and cognitive salience an individual holds regarding outgroups, as indicated through the EEE processes, can be manipulated or changed with consistent dialog, information, and exposure to outgroups. The consistent exposure through an 8-week multicultural psychosocial course has shown to have a statistically significant effect on the EEE processes.

The purpose of this study was to assess the participants' beliefs and cognitive salience about outgroup members by measuring any movement in their EEE processes. The age of the participants was a covariate to control for previous life experiences. This study supports the malleability of an individual's current beliefs and cognitive salience regarding members of outgroups through the introduction of multicultural psychosocial educational material. These findings support the notion that with the opportunity for individuals to participate in a multicultural psychosocial educational course, stereotypical beliefs, racist actions, and xenophobia may be reduced.

Conclusion

The EEE processes are a catalyst for the development of stereotypical assignments to members of outgroups (Kruglanski & Webster, 1996); Pirttli-Backman

& Kajanne, 2001); Roets & Van Hiel, 2011b). This is an empirically based assumption that along with the results of the present study lends support for additional investigation. With the increase in racial violence, the Black Lives Matter movement, and racial tension on U.S. and foreign soil resulting in attacks based on perceived outgroup beliefs, behaviors, and essence, the basis of an individual's psychological and biological driving forces should be investigated. Research into the social and biosocial aspects of social psychology has become more important and timely than ever.

Based on findings from the current study as well as prior research, the malleability of the EEE processes is possible regardless of the age of the individual. This study has shown that with participants ranging from 18 years of age and above, the EEE processes can be influenced by an 8-week multicultural psychosocial educational course. The consistent exposure in such a course to the similarities, beliefs, and differences in cultural and ethnic groups may be advantageous throughout the formal educational years.

Future studies should address age, gender, and race as factors in the introduction of culturally rich information introduced to individuals of all ages. Additionally, based on findings from this study supporting the malleability of the EEE processes, investigating the consistent offering of multicultural psychosocial rich information and exposure to outgroups should be considered and possibly mandated throughout the formal educational years. Findings from the current study offer hope in the possibility of human cognitive change, change in beliefs, and change in assumptions that an individual has regarding members of outgroups.

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Appendix A: Collegewide Course Outline of Record

HUMS 270, MULTICULTURAL PRACTICE

COURSE TITLE: Multicultural Practice

COURSE NUMBER: HUMS 270

SCHOOL: Public and Social Services

CREDIT HOURS: 3

CONTACT HOURS: Lecture: 3

DATE OF LAST REVISION: Fall, 2013

EFFECTIVE DATE OF THIS REVISION: Fall, 2014

CATALOG DESCRIPTION: This course examines, from a theoretical and experiential social work perspective, the personal behaviors and institutional factors that have led to oppression of ethnic minorities, persons of color or other oppressed populations and those practices that serve to maintain inter-group tensions.. Attention is given to discriminatory practices as related to gender, age, religion, disablement, sexual orientation, culture, etc. It will explore the strategies that the various groups have employed to deal with discrimination. Implications to the individual, society, and professions are explored.

MAJOR COURSE LEARNING OBJECTIVES: Upon successful completion of this course the student will be expected to:

1. Expand the level of awareness of attitudes toward human diversity including race, ethnicity, class, gender, religion, and sexual orientation, physical or mental limitations.
2. Explain the dual/multiple perspective frame of reference and its importance for socialization and society.
3. Explicate the concepts of stigma, stereotypes, prejudice and racism, minority, classism, homophobia, etc.
4. Obtain a historical and contemporary perspective on ethnicity in American society.
5. Explain the significance of ethnicity, race, gender, class, and sexual orientation in human development and family life.
6. Discuss the strengths of various groups as evidenced in survival strategies.
7. Understand the significance and impact of human diversity on society.
8. Obtain a frame of reference for examination of issues and practices as related to diversity, economic and social justices.
9. Utilize a research perspective in the study of ethnicity, race, gender, class, sexual orientation or other differences that impact society.
10. Develop a commitment to empowerment strategies.
11. Learn ways in which to operationalize a personal and professional commitment to the eradication of racism, classism, sexism, disablement, homophobia, etc.

12. Demonstrate critical thinking skills in examination and application of the course content.

COURSE CONTENT: Topical areas of study include:

Understanding diversity.

Define culture.

Determine need for culturally diverse socialization.

Explore changing demographics, White privilege, and culturally diverse values.

Understand socially constructed concepts for diversity.

Develop strategies for effective cross-cultural relations.

Discuss stress management and culture shock adaptation.

Explore social interaction and communication rules.

Discuss value orientation and history of ethnic communities in America.

Understand importance of immigration, gender, and religion and sexuality difference in America.

Develop culturally sensitive practice skills to promote empowerment.

Appendix B: Essentialist Entitativity Scale

1. Members of a racial group are usually very similar.

7	6	5	4	3	2	1	
Completely Agree							Completely Disagree

2. If you know to which racial group someone belongs, you know a lot about his/her personality.

7	6	5	4	3	2	1	
Completely Agree							Completely Disagree

3. Despite apparent differences between members of the same racial group, in essence they are the same.

7	6	5	4	3	2	1	
Completely Agree							Completely Disagree

4. Members of a racial group usually are identical in many respects.

7	6	5	4	3	2	1	
Completely Agree							Completely Disagree

5. Membership of a racial group largely determines someone's identity.

7	6	5	4	3	2	1	
Completely Agree							Completely Disagree

6. Members of a racial group share only superficial attributes, but actually they are quite different.

7 6 5 4 3 2 1

Completely
Agree

Completely
Disagree

7. Members of a racial group usually differ a lot from each other.

7 6 5 4 3 2 1

Completely
Agree

Completely
Disagree

8. Knowing that someone belongs to a racial group, is not sufficient to judge a person.

7 6 5 4 3 2 1

Completely
Agree

Completely
Disagree

9. Members of certain racial groups share a large number of underlying characteristics besides their superficial resemblances or differences.

7 6 5 4 3 2 1

Completely
Agree

Completely
Disagree

10. Members of a racial group often have not much in common.

7 6 5 4 3 2 1

Completely
Agree

Completely
Disagree

11. Membership of a particular racial group says nothing about a specific person.

7 6 5 4 3 2 1

Completely

Completely

Agree

Disagree

12. Members of certain racial groups are often very different although they might look similar at first glance.

7	6	5	4	3	2	1
Completely Agree						Completely Disagree

Items 6, 7, 8, 10, 11, and 12 are reverse coded.

Uniformity Items: 1, 4, 7, and 10.

Informativeness Items: 2, 5, 8, and 11

Inherence Items: 3, 6, 9, and 12.

Total Essentialist Entitativity score = mean of all items.

Appendix C: Participant Post-Study Questionnaire

Identifier _____ Date _____

Please answer the following:

1. During the 8-week period of the study were you the victim of a crime at the hands of a member of a different race or ethnic group?

Yes

No

2. During the 8-week period of the study were you involved in any major life events involving a member(s) of a different racial or ethnic group?

Yes

No

3. If you were a participant in the multicultural course, how many of the weekly class meetings did you attend?

_____ or _____ I did not take the course

Appendix D: Participant Post-Study Resource List

Following is a list of resources where you can find information regarding cultural and ethnic support groups, volunteer opportunities, and culturally specific resources.

IMMIGRANT SERVICES

BURMESE ADVOCACY CENTER

2424 Lake Avenue
Fort Wayne, IN 46805
(260) 755-2048
<http://www.bacindiana.org>
center@bacindiana.org

WCA NORTHEAST INDIANA

1610 Spy Run Avenue
Fort Wayne, IN 46805
(260) 424-4908 Main Office
<http://www.ywca.org/nein>

ASIAN HELP SERVICES

609 East 29th Street
Broadway United Methodist Church
Indianapolis, IN 46205
(317) 924-4827
<http://www.asianhelpservices-in.org>

NORTHERN INDIANA HISPANIC HEALTH COALITION

444 North Nappanee Street
Elkhart, IN 46514
(574) 522-0966
<http://www.nihhc.com>
info@nihhc.com

IMMIGRANT WELCOME CENTER

2236 East 10th Street
John H. Boner Community Center
Indianapolis, IN 46201
(317) 808-2326 English and Spanish
<http://www.immigrantwelcomecenter.org>
help@immigrantwelcomecenter.org

IMMIGRANT WELCOME CENTER**IMMIGRANT WELCOME CENTER BRANCH AT HAWTHORNE COMMUNITY CENTER**

70 North Mount Street

Indianapolis, IN 46222

<http://www.immigrantwelcomecenter.org>help@immigrantwelcomecenter.org**IMMIGRANT WELCOME CENTER****IMMIGRANT WELCOME CENTER BRANCH AT SAINT MONICA CHURCH**

6131 North Michigan Road

Indianapolis, IN 46228

<http://www.immigrantwelcomecenter.org>help@immigrantwelcomecenter.org**IMMIGRANT WELCOME CENTER****IMMIGRANT WELCOME CENTER BRANCH AT SOUTHEAST COMMUNITY SERVICES**

901 Shelby Street

Indianapolis, IN 46203

<http://www.immigrantwelcomecenter.org>help@immigrantwelcomecenter.org**MARION COUNTY PUBLIC HEALTH DEPARTMENT**

3838 North Rural Street

Hasbrook Building

Indianapolis, IN 46205

(317) 221-2106 Foreign Born Services

<http://www.mchd.com>**CATHOLIC CHARITIES OF FORT WAYNE-SOUTH BEND****CATHOLIC CHARITIES OF FORT WAYNE-SOUTH BEND - SOUTH BEND COMMUNITY CENTER**

1817 Miami Street

South Bend, IN 46613

(574) 234-3111

<http://www.ccfwsb.org>**NORTHERN INDIANA HISPANIC HEALTH COALITION****NORTHERN INDIANA HISPANIC HEALTH COALITION - WARSAW OFFICE**

1515 Provident Drive, Suite 140

K21 Health Services Pavilion

Warsaw, IN 46580

(574) 372-3536

<http://www.nihhc.com>info@nihhc.com**NEIGHBORHOOD CHRISTIAN LEGAL CLINIC****NEIGHBORHOOD CHRISTIAN LEGAL CLINIC - ALLEN COUNTY**

347 West Berry Street, Suite 101

Fort Wayne, IN 46802

(260) 456-8972 Automated Information Line
<http://www.nclegalclinic.org/ftwayne>
fwcontact@nclegalclinic.org

Immigration/Naturalization Legal Services

Programs that provide legal assistance for immigrants, nonimmigrant visa applicants, asylum seekers and lawful permanent residents who are seeking naturalization. Services are generally provided by nonprofit immigration law offices and may involve information and consultation about benefits under immigration law including procedures for obtaining student, visitor and employment-based visas; family immigration; asylee status; lawful permanent residence status; or citizenship.

CATHOLIC CHARITIES OF FORT WAYNE-SOUTH BEND

915 South Clinton Street
Fort Wayne, IN 46802
(260) 422-5625
<http://www.ccfwsb.org>
fwoffice@ccfwsb.org

INTERNATIONAL INSTITUTE OF NORTHWEST INDIANA

4433 Broadway
Gary, IN 46409
(219) 980-4636 Administrative Office
<http://icanwi.org/>
iilc4433@hotmail.com

NEIGHBORHOOD CHRISTIAN LEGAL CLINIC

NEIGHBORHOOD CHRISTIAN LEGAL CLINIC - LAKE COUNTY

940 Broadway
Catholic Charities
Gary, IN 46402
(317) 429-4131 Automated Information Line
<http://www.nclegalclinic.org>
contactus@nclegalclinic.org

LACASA

202 North Cottage Avenue
Goshen, IN 46528
(574) 533-4450
<http://lacasainc.net>
lacasa@lacasainc.net

NEIGHBORHOOD CHRISTIAN LEGAL CLINIC**NEIGHBORHOOD CHRISTIAN LEGAL CLINIC - HUNTINGTON COUNTY**

255 West Park Drive
Huntington Library
Huntington, IN 46750
(260) 456-8972 Automated Information Line
<http://www.nclegalclinic.org/ftwayne>
fwcontact@nclegalclinic.org

CENTER FOR VICTIM AND HUMAN RIGHTS

201 North Illinois Street, 16th Floor South Tower
Indianapolis, IN 46204
(317) 610-3427
<http://www.cvhr.org>
contact@cvhr.org

INDIANA LEGAL SERVICES**IMMIGRANTS AND LANGUAGE RIGHTS CENTER**

151 North Delaware Street, Suite 1800
Market Square Center
Indianapolis, IN 46204
(866) 964-2138 Toll-Free
<http://www.indianajustice.org>

LATINO COALITION AGAINST DOMESTIC AND SEXUAL VIOLENCE

300 East Fall Creek Parkway North Drive, Suite 200
Julia M. Carson Government Building
Indianapolis, IN 46205
(317) 926-4673
(866) 442-4627 Toll-Free
<http://www.indianalatinocoalition.org>
info@indianalatinocoalition.org

NEIGHBORHOOD CHRISTIAN LEGAL CLINIC

3333 North Meridian Street, Suite 201
Trinity Outreach Center
Indianapolis, IN 46208
(317) 429-4131 Automated Information Line
<http://www.nclegalclinic.org>
contactus@nclegalclinic.org

NEIGHBORHOOD CHRISTIAN LEGAL CLINIC

128 East Main Street
First Presbyterian Church of Lebanon
Lebanon, IN 46052
(317) 429-4131 Automated Information Line
<http://www.nclegalclinic.org>
contactus@nclegalclinic.org

**DEFERRED ACTION FOR CHILDHOOD ARRIVALS (DACA)
THE BRIDGE COMMUNITY CHURCH**

301 East Linden Avenue
Logansport, IN 46947
(574) 753-8316
<http://www.thebridgelogansport.com>

NEIGHBORHOOD CHRISTIAN LEGAL CLINIC

1207 Conner Street
First Presbyterian Church of Noblesville
Noblesville, IN 46060
(317) 429-4131 Automated Information Line
<http://www.nclegalclinic.org>
contactus@nclegalclinic.org

EL CENTRO COMUNAL LATINO

303 East Kirkwood Avenue, Room 200
Monroe County Public Library
Bloomington, IN 47408
(812) 355-7513
<http://www.elcentrocomunal.com>
elcentrocomunal@gmail.com

**ELKHART COUNTY HEALTH DEPARTMENT
ELKHART COUNTY HEALTH DEPARTMENT - LINCOLN CENTER**

608 Oakland Avenue
Lincoln Center
Elkhart, IN 46516
(574) 523-2283
<http://www.elkhartcountyhealth.org>

MEDICAL RESERVE CORPS (MRC)**AUDIO READING SERVICE**

7615 DiSalle Boulevard

Fort Wayne, IN 46845

(260) 421-1376

<http://www.acpl.lib.in.us/home/audioreadingservice>
audioreadingservice@acpl.info

EXODUS REFUGEE IMMIGRATION

1125 Brookside Avenue, Suite C9

Indianapolis, IN 46202

(317) 921-0836

<http://www.exodusrefugee.org>

WFYI INDIANAPOLIS

1630 North Meridian Street

Indianapolis, IN 46202

(317) 614-0404 IRIS

<http://www.wfyi.org>

Source-United Way of Allen County - 2015

Appendix E: Course Participant Post-Study Questionnaire

Please enter the Personal Identification Number you recorded on your consent form here:

Date (MM/DD/YY): _____

Instructions: Please answer the following.

1. If you were enrolled in HUMS 270, Multicultural Practice, this quarter, how many of the eight class meetings were unable to attend?

____ 0-2

____ 3-5

____ 5-8

____ I did not take the course.