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The Impact Of Biculturalism On Human Learned Helplessness With Northern Plains Native Americans

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THE IMPACT OF BICULTURALISM ON HUMAN LEARNED HELPLESSNESS WITH NORTHERN PLAINS NATIVE AMERICANS

by

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A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Grand Forks, North Dakota
August, 2007
This dissertation, submitted by Alan H. Storey Jr. in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

(Chairperson)

This dissertation meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

Dean of the Graduate School

August 17, 2007
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ACKNOWLEDGEMENTS

I would like to express my appreciation to all the individuals who assisted in the completion of this dissertation. I would like to thank my doctoral dissertation advisor, Dr. Doug McDonald, who gave his guidance and time throughout this project. I would also like to thank my other committee members, Dr. Jeffrey Weatherly, Dr. Joseph Miller, Dr. Richard Crawford, and Dr. Alan King for their suggestions and encouragement of this dissertation project. I would like to extend a special thanks to Kenny Jiminez, Stephanie Parisian, Samantha Chase, Guy Keener, Janna Azure, and Erica Azure of the Indians intPsychology Doctoral Education (INPSYDE) program research team for all their countless hours of assistance. I would like to acknowledge Dr. Sankara N. Sethurman for his statistical help and Dr. Ken Dobbins and Dr. Marie Wilkie for help in reading and oversight of my dissertation while on Internship. For these people, I am grateful for their teamwork and support. Finally, I would like to offer a special thanks to my wife, Joy Storey, and my children, Nikki and Christopher for all their love, patience, understanding and support.

In loving memory of my grandmother, Margaret Welch.
ABSTRACT

This study investigated the effects of participant ethnicity, research ethnicity, and either failure, success, or neutral feedback on performance on letter anagram tasks. The failure feedback represented a standard learned helplessness paradigm with the dependent measures focused on the interferences and behavior of the participants in response to feedback from either a Native American or European American researcher. A total of 55 Native Americans and 73 European Americans were assigned randomly to one of three feedback conditions (success, failure, neutral) conducted by a study blind examiner of either American Indian or Caucasian ethnicity and appearance. Participant level of biculturalism was assessed using the Northern Plains Biculturalism Inventory (NPBI), a 30 item questionnaire which assesses the degree of cultural competence on two orthogonally related cultural dimensions. Learned helplessness effects were inferred for groups as a function of anagrams completed as well as through the Concept Formation Task Questionnaire (CFTQ) measure of individual participant self-perceptions regarding the adequacy of their performance. Feedback was manipulated by the examiners with random assignment of participants to either a 100% Failure group, 100% Success condition, of accurate and neutral feedback. Additional questionnaire items were used to assess participant perceptions of the examiner's cultural orientation. Native American participants were expected to show higher levels of learned helplessness than European Americans particularly when the feedback was provided by examiners from the different
ethnicity. Native American participants did complete the fewest anagrams in the failure condition as predicted when European American examiners provided the feedback. Native American participant confidence and satisfaction in their performance on the anagram task (CFTV) was curiously lower when the feedback came back from a European American examiner as opposed to someone from the same ethnicity. It was also hypothesized in this study that American Indian subjects exhibiting higher levels of Traditional or Marginal cultural orientation would show greater frustration and learned helplessness in the Failure group than their more Assimilated or Bicultural peers, as well as the Caucasian subjects. Trends were shown suggesting resiliency to these effects among American Indian participants with Bicultural or Assimilated, as opposed to Traditional or Marginal cultural orientations.
CHAPTER 1

INTRODUCTION

The concept referred to as acculturation, assimilation, and now biculturalism, remains both elusive and accepted as important by cross-cultural researchers. Anthropologists and cross-cultural psychologists have explored and debated its existence for decades. Biculturalism is believed to be an important concept in understanding an individual's level of functioning and psychological well-being (LaFromboise, Coleman, & Gerton, 1993; McDonald, Morton, & Stewart, 1993). Accordingly, the more bicultural one is, the better he or she can relate to cultural realms. This is why it is important for psychologists to understand an individual's level of biculturalism. Oetting & Beauvais (1990) proposed the Orthogonal Theory of Biculturalism that has become widely accepted. The theory authors suggest that a member of one culture attains some degree of cultural competence not only in his or her own, but also many times in more than one culture. This degree of cultural competence in more than one culture reflects the individual's bicultural competence, or Biculturalism. Figure 1 depicts the relationship between these dimensions, as well as the four quadrants within an individual's score that may place them in terms of their Biculturalism. (LaFromboise, 1988) further suggest that higher degrees of Biculturalism are positively correlated with increased mental health and other life-successes. What does not seem to be well understood, however, is to what degree biculturalism affects certain or specific mental health issues and related behavior. There is a small but growing literature base on certain
mental health issues overall with minority groups, and a smaller literature base specifically investigating mental health issues and Native Americans. What has not been investigated is to what degree certain concepts, such as learned helplessness, play a role in Native American mental health issues, or more specifically, to what degree biculturalism plays a role in the development or maintenance of learned helplessness with Native Americans.

Learned helplessness has been widely researched and referenced, first by Seligman & Maier (1967) and Overmeier & Seligman (1967). Seligman and his colleagues first used the term learned helplessness to describe an escape-avoidance behavioral phenomena produced in dogs by prior inescapable shock, and subsequently was theorized that humans also produce learned helplessness effects when exposed to unsolvable tasks and perceived inescapable problems. Learned helplessness therefore deals with performance effects of exposure to unsolvable problems (Mikulincer, 1996).

Many others have hypothesized that learned helplessness is also associated with specific mental disorders, specifically anxiety and depression (Mikulincer, 1996 and Seligman, 1967). Others have also investigated depression and some of the contributing factors to depression in Native Americans (Dignes & Duong-Tran, 1993; Manson, 1995; and Manson et. al., 1990). What has not been researched is learned helplessness and Native Americans, or more specifically, bicultural impacts on learned helplessness with Native Americans.

There have been hundreds of theoretical and empirical papers that have been published on learned helplessness over the past few decades, and the concept is widely reflected in many sub-fields of psychology, ranging from social and cognitive psychology.
to clinical and experimental psychology (Mikulincer, 1994). In addition, researchers have investigated many possible factors related to learned helplessness, such as sex, age, locus of control, mood, achievement motivation, and extraversion, to mention only a few (Jones, 1997; Sue & Sue, 1999; Winfield, 1982). Others have also theorized a strong relationship between learned helplessness and depression (Mikulincer, 1996 and Seligman, 1967). One relationship that has not been researched is that of an individual’s cultural background and relevance to learned helplessness.

In addition, many minority researchers and psychologists have also theorized that not only does an individual’s level of cultural competence impact performance and mental health (LaFromboise, 1988; and McDonald, Morton, & Stewart, 1993), but it also may be related to the development of their overall world-view and their place within that world (Jones, 1997, Sue & Sue, 1999). Researchers have also postulated that a Native American’s level of cultural competence impacts certain disorders, such as anxiety, alcohol abuse, and depression. Very little research specifically addressing Native American mental health issues exists, and there is no known research regarding Native Americans and learned helplessness, or the effects of authoritative figures on Native Americans and learned helplessness.

The underlying premise of this study was that Native Americans’ level of cultural competence, or biculturalism, may be related to their propensity for experiencing learned helplessness.
Definition of Key Terms Used in this Study

Native American/American Indian is described by McDonald, Morton, and Stewart (1993) as belonging to a federally, state, or locally recognized tribe through blood quantum or descendency, or adoption through a tribal ceremony and living within tribal customs.

European American is an individual who belongs to, or is associated with the majority, or American, culture (Allen & French, 1994; Oetting and Beauvais, 1990).

Cultural competence is described by LaFromboise, Coleman, and Gerton (1993) as, "a person who has a strong, personal identity, knowledge of and facility with the beliefs and values of the culture, communicates clearly in the language of that specific cultural group, performs the socially sanctioned behaviors, maintains the active social relationships within that cultural group, and negotiates the institutional structures of that culture (p. 396)."

According to the Orthogonal Theory of Biculturalism, an individual's level of bicultural identification may be defined within one of four quadrants (see Figure 1). The first quadrant, Bicultural, would define an individual displaying cultural competence in both cultural domains. The second quadrant, Traditional, is reserved for individuals displaying high degrees of cultural competence in their culture of origin, but low degrees of cultural competence in another. The third quadrant, Marginal, defines an individual with low cultural competence in both realms. The fourth quadrant, Assimilated, is reserved for those displaying high cultural competence in their adopted culture and low competence in their culture of origin.
Learned helplessness is a conditioning experience of behaviors that reflect an interference produced by uncontrollable outcomes on otherwise adaptive responses (Mikulincer, M. 1994).

Literature Review

The Orthogonal Theory of Biculturalism

Oetting and Beauvais (1990) suggested that individuals were more successful and well adjusted if they are more culturally competent in both their native and majority cultures. These highly bicultural individuals will also display better cognitive, emotional, and behavioral coping skills and strategies. They will participate in cultural activities, have good communication skills, and are knowledgeable about cultural norms and customs in both cultures (LaFromboise, Coleman, & Gerton, 1993). Very little research empirically testing the Orthogonal Theory of Biculturalism exists, however, and even less research investigated the effects of biculturalism on Native Americans. There is no known research or literature that investigates or even mentions the effects of biculturalism on learned helplessness with many cultural groups in general, specifically Native Americans.

General Cross-cultural Issues

Cultural differences between therapists and clients, as well as teachers and students (e.g., authority figure), may also increase the likelihood that symptoms may be misunderstood, misdiagnosed, or simply not recognized (LaFromboise, 1988). Native American students' achievements and progress, or the lack of it, may also be misunderstood. It is important that majority culture therapists and teachers become as
culturally competent and sensitive as possible when working with Native American clients and students. Cross-cultural competence is believed to be critical in properly recognizing symptomology and enhancing treatment plan development when working with those from different ethnic groups. Clinicians and academicians who are more knowledgeable regarding the unique challenges faced by and dealing with their academic needs than their non-culturally competent colleagues are more aware of the cultural sensitivities when interacting with minorities (Dana, 1993; Maser & Dignes, 1993; McDonald, Morton & Stewart, 1993). In order for professionals to become culturally sensitive and competent in properly dealing with Native Americans, they must attain some degree of understanding as to what factors may or may not impact Native Americans and their psychological well-being. Therefore, if a Native American’s level of biculturalism does indeed impact mental health issues, such as depression and inevitably learned helplessness, we must empirically and sufficiently investigate these unique and important concepts of biculturalism and learned helplessness.

General Learned Helplessness Issues

Maier and Seligman (1976), reviewed many of their prior experiments and theories, as well as others, surrounding their research and theories involving learned helplessness, as well as learned helplessness with humans. In their primary research with learned helplessness, the researchers used dogs that were exposed to inescapable and unavoidable electric shock, and the dogs later failed to learn to escape the shock in another situation where escape was possible (Overmeier & Seligman; and Seligman & Maier, 1967). Seligman and his colleagues termed this conditioning experience of behaviors that reflect an interference produced by uncontrollable outcomes on otherwise
adaptive responses as learned helplessness (Mikulincer, M. 1994). Maier and Seligman also reviewed experiments that involved other species besides dogs that were used in learned helplessness studies such as cats, fish, and rats, and found similar results. When the animals were exposed to an aversive situation, such as shock, with no escape, most of the animals failed to learn how to avoid the situation when escape was possible.

Most of the laboratory studies with animals, and specifically dogs, on learned helplessness effects reflected Seligman and his colleagues' original work of triadic designs using yoked groups with dogs. Of the hundreds of studies done, the most typical design and referenced work was done by Overmeier and Seligman (1967); Seligman and Maier (1967); Overmeier (1968); and Seligman and Groves (1970). In Seligman & Maier's original study (1967), they used three groups of eight dogs. The escape group was conditioned to turn off the shock by pressing a panel with their nose while their heads were constrained in a hammock device. A yoked group received shock identical in duration, number, and pattern to the escape group. The yoked group differed in respect to the escape group in that panel pressing did not terminate the shock as did with the escape group. The third group was the naïve control group, and received no shock while in a hammock devise. The researchers then waited twenty-four hours after initial hammock treatment, all three groups received escape/avoidance training in a shuttle box. The escape group and the avoidance group performed similarly, in that they jumped a safety barrier consistently to avoid the shock. Of the yoked group, however, six of the eight dogs either did not escape, or were significantly slower than the other two groups at avoiding the shock. Maier and Seligman further mention that, like this particular study, of all the studies they reviewed in regards to studies involving dogs and inescapable
shock (approximately 150 dogs), they found that about two thirds showed learned helplessness effects, and one third did not. Furthermore, they mention after investigating multiple studies involving several hundred dogs that were exposed to the shuttle box studies, approximately 95% responded with learned helplessness effects, while approximately 5% did not. They concluded that the prior history of the dogs might have been the determining factor in why some dogs did not produce learned helplessness effects. This extensive work involving learned helplessness effects in dogs was experimentally replicated using other species, in order to support or refute the findings of learned helplessness in dogs.

Many other researchers examined the effects of learned helplessness with cats (Zielinski & Soltysik, 1964; Seward & Humphry, 1967; & Masserman, 1971). The researchers used identical designs like the ones used with dogs: hammock designs followed by shuttle box experiments. Similar to the results of the dog studies, most of the cats produced the learned helplessness effects.

Padilla et al, (1970) gave inescapable shock to goldfish and then tested them in an aquatic shuttle box experiment. The fish that were given the inescapable shock were significantly slower to avoid the shock than naïve control groups, suggesting that the goldfish also could be easily conditioned to learned helplessness. Until now, all species appeared to respond to conditioning experiments involving learned helplessness.

As mentioned above, research involving the use of different species and learned helplessness produced similar results, until conditioning of learned helplessness was attempted in rats, and eventually, humans. In early research involving rats, it was difficult to produce learned helplessness effects in rats using the original design used with
dogs, cats, and fish. Many researchers (Maier, Albin, & Testa, 1973; Maier, & Testa, 1975; Seligman & Beagley, 1975; and Seligman, Rosellini, & Kosak, 1975) eventually did produce learned helplessness effects with rats. In early research using dogs, cats, and fish, it was relatively easy to produce learned helplessness effects using a simple escape response, such as pressing a bar one time or jumping to the other side of a shuttle box. Learned helplessness effects were not produced in rats if simple escape responses were needed. Instead, when response requirements were increased, say to lever pressing three times, or jumping over the other side of the shuttle box and back, the rats did not learn to escape. This interesting and more complex procedure also was needed to produce learned helplessness effects in humans as well.

With this early and extensive research investigating and demonstrating learned helplessness, it was suggested that learned helplessness therefore must consist of three interrelated areas of disturbance (Seligman 1974; 1975). These three areas are (a) motivational: the phenomena when species are exposed to inescapable shock later do not initiate any escape responses. (b) cognitive: an inability to associate relationships between behavior and outcome, even when shown, and (c) emotional: uncontrollable aversive events produce a greater emotional disturbance than controllable events, in other words, a fear response (Miller III, I. W., and Norman, W. H., 1979). With Seligman’s suggestions of three interrelated areas of disturbance being needed for learned helplessness to exist, many began questioning if these effects could be replicated in humans, because humans were believed to be the species that most directly reflects Seligman’s suggestion.
Once learned helplessness was believed to be demonstrated in animals, and with Seligman's suggestion that learned helplessness consists of three interrelated areas of disturbance, research on learned helplessness began to focus on humans. One of the earliest experiments of human learned helplessness was conducted by Hiroto (1974). Hiroto exposed a group of college students to 50 trials of unsignaled loud noise, and could be terminated by a pressing of a button four consecutive times, which was the escape group. In addition, this higher degree of "complexity" was consistent with earlier rat experiments, and is necessary with humans. A second group, the helplessness-training group, was exposed to inescapable noise, which ceased independently of their responses. The two groups received the same amount, duration, and pattern of noise, and the noise ended at the same time for both groups. The two groups differed in the degree of control over outcome. A third group, the control group was not exposed to any noise. The results were similar to the earlier animal experiments. What was not known is if humans would react similarly to less evasive studies, such as developing learned helplessness in tasks involving cognition.

Hiroto and Seligman (1975) investigated possible human learned helplessness effects on unsolvable cognitive problem solving tasks. The researchers asked participants to perform three 10-trial Levine concept formation tasks. In each trial, two different geometrical patterns, which were each composed of five attributes, appeared on each side of a card. Each subject was asked to determine which of the five attributes the experimenter designated as target attributes. Also, in each of the trials, the participants were asked to indicate whether a target attribute appeared on the left or right side of the
cards. The experimenters told the participants whether their choices were correct or not. Finally, after the tenth card, participants were asked what they thought the target attribute was, and received feedback on correctness of their solutions.

The researchers used three groups of human participants. They used one group of participants that performed no task in the training phase, the control group. A second group, the solvable group, received positive feedback from their responses. This enabled participants to learn the target attributes and control experimenter's feedback. In addition, they could control "correct" feedback and avoid "incorrect" feedback. The third group, the failure group, was exposed to uncontrollable feedback. In this group, the experimenter selected no attribute, and selected a predetermined, random schedule of "correct" and "incorrect" responses during the trials. In addition, by the tenth trial, participants were consistently told "incorrect" each time they responded. Results again paralleled the earlier learned helplessness studies. Participants in the unsolvable condition were less likely to learn a controlled outcome than participants in the solvable and no-problem conditions. In addition, no difference was found between the solvable and no-problem conditions. This study supports the concept that frustration and control issues play an important role in the development and maintenance of learned helplessness in humans. Unfortunately, there was no mention as to what, if any, cultural groups were used in the study. What is not known, therefore, is how culturally diverse groups would respond to frustration tasks and learned helplessness.

Mikulincer (1994) also mentioned that learned helplessness effects are not limited to noise escape learning, but similar effects have been found in a wide variety of cognitive problem-solving tasks, including anagrams, intelligence tests, block designs,
digit-letter substitution, discrimination learning, and Raven matrices. To date, there appears to be no standard task that is used in human learned helplessness studies. What is known, however, as mentioned in the earlier rat experiments and Hiroto’s early human experiments, and those that followed, is that the response requirements necessary for human learned helplessness effects must be more difficult than simple animal studies as evidenced by the simple procedures that were conducted by animal studies, and the task must be something that the participant does not do consistently (Maier and Seligman, 1976). In addition, there are a few studies that investigated some factors that may influence learned helplessness, however, there is no known research looking specifically at culture as a factor in learned helplessness. More specifically, there is no known research that mentions bicultural impacts on learned helplessness with any minority group, let alone Native Americans.

Witowski and Stiensmeier-Pelster (1998) compared two competing explanations of performance deficits following failure: the self-esteem protection theory and the learned helplessness theory. The researchers explained that the self-esteem protection theory has to deal specifically to an individual attributing failure to more specific causes. For example, an individual shifts the cause of failure from more central, such as himself or herself, to the cause of failure to being less central, or make excuses, such as everyone fails. This is different from the original learned helplessness theory where failure is attributed to the self. The authors mentioned that generalizing the failure therefore protects the participants’ self-esteem, defined as an individual’s self-perception of themselves as positive and useful.
This experiment had some degree of cultural importance in that it was conducted in Germany. A total of forty high-school students were used in the first study looking at the self-esteem protection theory, and 45 high-school students in the learned helplessness study. Wilowski and Stiensmeier-Pelster conducted two laboratory experiments comparing the two explanations following failure tasks first using first mathematical problems and second using matrices, and these tasks were performed in either private or public. In both studies, failure in the first task (mathematical) caused significant performance deficits in the second task (matrices) only if the participants had to attempt to solve them in public. No significant results were found between gender or age. The authors concluded that although there is support for the original learned helplessness theory, the finding of performance deficits only in public lent more support to the self-esteem protection theory. Supporting evidence for this, according to the authors, was in the self-report follow-up and debriefing where the participants were told that the tasks were indeed unsolvable. Once the participants were made aware that the tasks were unsolvable, they attributed their failure to other factors, therefore protecting their self-esteem.

One methodological concern with this study may have confounds. Self-esteem is often seen as a cognitive and emotional issue. Seligman (1975) mentions that learned helplessness in humans is comprised of emotional and cognitive phenomena. If this is indeed true, then the authors may have misinterpreted the results by not considering the combined or additional effects impacting the participants. There are a few important findings in this study, however. The experiments found an increased learned helplessness phenomenon when participants had to perform unsolvable tasks in public, rather than
Furthermore, the authors did mention that learned helplessness occurred when the participants had to perform a number of unsolvable tasks. This lends support to prior research that mentions this same issue that the tasks must be more complex than simplified animal tasks. Furthermore, this project was conducted on participants from a culture other than European Americans. Empirical research investigating learned helplessness must be conducted on other non-European groups, such as Native Americans.

Cemalcilar, Canbeyli, and Sunar, (2003), investigated three aspects of learned helplessness phenomenon: induction of learned helplessness using unsolvable maze tasks, the effects of a therapy technique using direct retroactive reevaluation of the helplessness experience, and the role of personality characteristics in both the helplessness induction as well as the therapy. There were 92 Turkish university undergraduates were recruited (42 men, 50 women). All participants were exposed to the failure task and one group received the therapy afterwards and the other did not. Results supported that learned helplessness effects were successful and the therapy technique used was effective when reversing the effect. There were no gender differences found between helplessness induction and therapy outcome. However, there was an interaction effect between gender and personality characteristics. In men, agreeableness was related to lower learned helplessness effects, and in women, neuroticism was related to higher learned helplessness effects.

Again, this study involved a different culture other than European American, and in addition, this research supports the need to immediately debrief participants following learned helplessness studies in order to alleviate any effects of learned helplessness. The
authors report that using simple success feedback immediately following exposure effectively reverses negative effects of uncontrollable failure. This finding may be important in research involving learned helplessness studies with humans and may be crucial when debriefing other, possibly more susceptible minority groups, such as Native Americans.

**Learned Helplessness and Specific Variables**

A large number of studies indicated that certain variables might be important in mediating the effects of experiencing human learned helplessness (Winefield, 1982). Some of these variables that are mentioned are locus of control, age, sex, mood, achievement motivation, extraversion, and even coronary prone behavior pattern. Interestingly, no known research found mentioned race, culture, or ethnicity as a direct variable that may impact human learned helplessness. In addition, there is no known research looking at cultural orientation of authority figures on learned helplessness effects with certain ethnic groups.

Wilson, Seybert, and Craft (1980) looked at the impact of gender on human learned helplessness on high school and college students. A total of 60 participants (30 male, 30 female), were recruited for the study. The participants were broken down into 30 freshman (15 male, 15 female) students from a small midwestern college, and the other 30 (15 male, 15 female) were freshman and sophomores from a nearby high school. The effect of partial control over aversive auditory stimuli was examined in a classic learned helplessness paradigm. During the pretreatment phase, three groups of female and three groups of male participants were allowed control termination of an aversive tone on 0%, 50%, or 100% of the trials. In a second phase, participants performed an
escape-avoidance task, and the subject was allowed complete control over termination or prevention of the tone in each trial. Results showed that only the female subject group showed significant differences in partial control over aversive stimuli and was markedly different than those groups who had complete or complete lack of control. The authors suggest that females differ in susceptibility to learned helplessness treatments and this effect may be related to differences in perceived lack of control. Again, there was no mention of the cultural orientation of groups, if any. What is still unknown is the impact of culture on learned helplessness. Learned helplessness studies did, however, begin to attract attention as a model for investigating certain psychopathologies, especially anxiety and depression.

Learned Helplessness and Depression

Bodner and Mikulincer, (1998), conducted a meta-analysis on five separate experiments done by the authors themselves examining different empirical studies on depressive and paranoid like responses in learned helplessness studies that looked at depression and learned helplessness. All participants were exposed to a no-feedback, “universal” failures, and “personal” failures while the attention of the participants was either focused on the experimenter or themselves, respectively. Follow-up questionnaires looked at depressive or paranoid symptoms, interfering thoughts, self-schemata, and autobiographical memories. Overall findings indicated that when the attention of the participants were focused on themselves, “personal” failure was effective in producing depressive-like symptoms. When attention was focused on the experimenter, “universal” failure was effective in producing paranoid-like reactions. These results also parallel the study conducted by Witowski and Stiensmeier-Pelster (1998), where learned helplessness
effects could be produced and empirically supported, placing blame on self or others often resulted. More specifically, Witowski and Stiensmeier-Pelster’s study investigated the effects of an experimenter on learned helplessness and found that learned helplessness effects can be produced by an experimenter as well. Research investigating the effects of learned helplessness as well as effects of an experimenter on learned helplessness needed to be conducted with Native Americans, primarily because although it is often mentioned clinically, no empirical research supports that theory.

Depression and Native Americans

Halpin, Halpin, and Whiddon 1981 compared locus of control and self-esteem between 97 Native American (51 male, 46 female) and 128 European American (68 male, 60 female) junior and senior high-school students. All the Native American participants were from the Rocky Mountain region Flathead tribal reservation. Results suggested that the two groups did not differ in locus of control, sex, or grades; however, there was a significant difference in self-esteem between the two cultural groups. Native Americans showed lower self-esteem than their majority culture counterparts. The authors point out that self-esteem is often used in literature to explain a broad variety of behavioral phenomena, and positive self-esteem is directly related to worthiness that is expressed in the behaviors and attitudes that the individual holds towards himself or herself. The Native Americans in the study regularly characterized themselves as “below average” and “poorly prepared.” Their self-image had been constantly beaten down by repeated failure as reported in the follow-up questionnaire. In addition, their attitudes towards Caucasian teachers and administrators had not helped in many instances of their self-image either. Finally, the authors suggest that of those Native American students who did not report
low self-esteem, the students' success weighed heavily on the proper development of self-esteem so that negative images and negative societal views were unrelated to individual achievements, and were therefore replaced by more positive self-images reflecting their own successes. They also point out that very little research has been done to substantiate this hypothesis. In addition, low self-esteem was generally seen as a related symptom of depression. More specifically, the Native Americans in this study mentioned that repeated failures were a contributing factor to low self-esteem, as did perceptions of European American teachers and administrators. Low self-esteem, depression, and failure were believed to be related to, and contributed to, learned helplessness.

Perceptions of European American authority figures were believed to be contributors to learned helplessness as well. There is a small amount of research that investigates certain concepts related to learned helplessness with Native Americans, such as low self-esteem or depression. Again, there is no known research directly investigating the concepts of learned helplessness, or perceptions of European American authority figures with Native Americans.

O'Neil, (1993) conducted a culturally sensitive, yet complicated, study of comorbid diagnoses of depression and problem drinking on a Flathead reservation in Montana. A total of 20 of the respondents were used in the study, and all had currently met, or were previously diagnosed with major depressive disorder. In addition, all were currently drinking, or have had prior problems with drinking. Of the 20 used, 8 of the participants attempted suicide at some time in their life. Equal numbers of 10 men and 10 women ranging in age from 29 to 79 (median years of age were used in the study.
Results suggested that the comorbid diagnoses of depression and problem drinking were associated with the concept of interdependence on one another, a positive expression of belonging, and feelings of worthlessness. The authors suggested that although depression and drinking did capture a dimension of distress, O’Nell found a cultural uniqueness with Native Americans and the Western expectation of depression and drinking. O’Nell concluded that depression, drinking, and even suicide held meanings beyond demoralization with Native Americans and the reservation environment. They mentioned that depression and drinking on the reservation also had positive connotations, in that drinking was seen on the reservation as a behavior associated with belongingness and acceptance. This unique finding of depression and drinking on the reservation having a positive connotation and that drinking was seen on the reservation as a behavior associated with belongingness and acceptance raised questions as to the relative nature of the current diagnostic system of the Western culture and complications associated with other cultures. The author also concluded that there must be a level of cultural sensitivity to using the current diagnostic system and an understanding of different cultures when assessing and diagnosing disorders with different cultures, primarily Native Americans. These conclusions support the need to properly assess and understand the complexities of minority groups, specifically Native Americans. Assessing the impacts of biculturalism on mental health issues, such as learned helplessness, may provide a better understanding to these complicated and unique findings with Native Americans.

Other researchers have investigated other issues that contribute to depressive symptoms with Native Americans, such as alienation and prejudice (Trimble, 1987; and
Duckitt, 1992). Trimble mentioned that Native Americans in general perceive themselves negatively and feel alienated, while Dunkitt mentioned that prejudice is important in determining an individual’s susceptibility to social influences and mental well-being. Alienation and prejudice are believed to be major contributing factors to mental health problems, particularly depression. There is a small amount of literature that discusses these concepts. However, almost no empirical research is available that investigates a Native American’s level of cultural competence, or biculturalism, and mental health concerns, such as depression or learned helplessness.

Many professionals in the psychology field, such as researchers, counselors, therapists, clinicians, as well as teachers, have mentioned that there are indeed variables that affect learned helplessness, such as those mentioned above. One variable in particular is culture; unfortunately, no research exists looking specifically at cultural influences on learned helplessness. More specifically, no research is known looking at bicultural impacts on human learned helplessness, particularly Native Americans and human learned helplessness. Finally, and as mentioned above, no known research exists looking specifically at authority figure influences on learned helplessness with Native Americans.

Study Hypotheses

It was hypothesized that the higher the level of biculturalism or assimilated an American Indian subject scores (on the NPBI), the lower their expression of learned helplessness would be. Conversely, the lower the individual’s level of biculturalism is (e.g., traditional or marginal), the higher their degree of learned helplessness. In addition, it was also hypothesized that the examiner’s culture (e.g., Native American or European
American) may also affect human learned helplessness in that the Native participants who are more Traditional or Marginal will record higher levels of learned helplessness when the examiner is Caucasian than their Bicultural and Assimilated peers, as well as their Caucasian peers.
CHAPTER II
METHODOLOGY

Participants

Native American and European American Freshman college students were recruited for this study. The sample consisted of 55 American Indian and 73 European American college students from the University of North Dakota. All of the Native Americans were members of a federally recognized tribe. Participants scoring above 28 (Moderate Depression) on the BDI-II were excluded from the study and provided with appropriate mental health referrals. A total of 3 participants that signed up for the study scored above the 28 point cutoff and were unable to participate in the study and given the appropriate referrals. Finally, there were 43 participants in the Success and Failure groups, and 42 in the Control group. Overall, there were 48 males and 80 females in the study.

Researchers

There were two Native American and two European American researchers, with one female and one male of each cultural orientation. Each individual was given the standardized instructions for each of the three subject groups (Success, Failure, and Control), and their performances were audio taped. Their recorded results were rated using a modified rating scale developed by King and Pate (2002), the First Impression Interaction Procedure (FIIP) Rating Form. This scale measures an individual’s
characteristics or personality features. After the initial selection, they were additionally trained by the primary researcher on their specific tasks in the project.

Materials

All participants were administered the following assessment measures (see appendix A): a) an Informed Consent form, b) a Demographic Questionnaire, c) the Beck Depression Inventory - Second Edition, d) The Northern Plains Biculturalism Inventory (NPBI; Allen & French, 1993) which was given to both the Native Americans and European Americans, e) the eight-letter word anagrams, f) the Concept For nation Task Questionnaire, g) the two counter-balancing anagrams, and, h) the debriefing statement.

Informed Consent. Participants in this study were anonymous. The participants’ data were coded numerically on the informed consent form and databases. (Appendix A)

Demographic Page. The participants’ names did not appear on the demographic form, and each subject was given a sequential code. These forms were secured in the INPSYDE program office. The items on the demographic page assessed the participants’ background, age, gender, year in school, and tribal/cultural affiliation. These variables were examined to provide information about the sample (Appendix B).

Northern Plains Bicultural Inventory (NPBI). The NPBI is a 30 item; factor analytically developed self-report scale measuring cultural competence on two distinct cultural dimensions: a) American Indian Cultural Identification (AICI), and, b) European American Cultural Identification (EACI), based on the Orthogonal Theory of Biculturalism (Oetting & Beauvais, 1990). The NPBI developers reported a third factor, c) Language that they suggest is orthogonal to either the AICI subscale or the EACI.
subscale, and should therefore be interpreted separately. The Language subscale was not used in this study (Appendix C).

**Beck Depression Inventory-Second Edition (BDI-II).** The Beck Depression Inventory-Second Edition (BDI-II; Beck, Steer, & Brown, 1996). The BDI-II is a 21-item self-report instrument for measuring depressive symptomology in individuals aged 13 years and older. An individual’s score on the BDI-II determined the severity of depression. Scores ranging from 0-13 suggested minimal depressive symptoms. Scores ranging from 14-19 suggested mild depression. Scores that range from 20-28 suggested moderate depression, and scores ranging from 29-63 suggested that an individual suffered from severe depression.

The BDI-II was developed for the assessment of depressive symptoms in accordance with the criteria for diagnosing depressive disorders listed in the American Psychiatric Association's (APA) *Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition* (DSM-IV; 1994).

**Concept Formation Task Questionnaire.** The Concept Formation Task Questionnaire is a twenty-three question Likert-scale self-report questionnaire assessing an individual’s perceptions on performance, success/failure, helplessness, and mood. Literature points out that there is no standardized protocol as well as no standardized assessment measurement known for learned helplessness, Winefield, A., and Stiensmeier-Pelster, J. The Concept Formation Task Questionnaire is a protocol typically used in helplessness studies, and was modified to assess helplessness relevant to the study (Appendix D).
Letter Anagrams. Letter anagrams consisted of eight letters created by the researchers, and words could be derived with certain letters. The same anagrams were given to all participants in each group.

Procedure

Information regarding Researchers. A pilot study was conducted in order to determine potential experimenters for standardization. Audiotapes were used to assess for the standardization of potential experimenters to be used as researchers in the study. Potential experimenters delivered mock sessions, and ratings were made on which experimenter was the most capable to deliver valid sessions based on the audio taping of the standardized instruction protocols. The researchers were rated using the First Impression Interaction Procedure (FIIP) Rating Form developed by King and Pate (2002), and was slightly revised to assess the rater's view of whether or not the listener perceived them to be likable or not, to meet the requirements of this study and consisted of 16 questions. In addition, experimenters were also determined for their ethnicity. There were two female experimenters, one Native American and one European American, and there were two males, one Native American and one European American chosen for the research project. There were two raters that used the FIIP Rating Form to rate the experimenters based on their presentations on the audiotapes as well as their ethnicity. All experimenters chosen for the study rated high on the FIIP Rating Scale (representing positive aspects), with no individual item being a 3 or higher (1 representing positive aspects, 7 representing negative aspects). Payment of the researchers was such that three of the researchers chosen were paid for their participation by an undergraduate
scholarship program, and one student was a graduate student who was paid by the primary researcher.

**Information regarding Sub-sample.** A total of Thirty-eight participants were used during the pilot study and the participants were included in the overall sample. During the pilot study, areas that were investigated were the recruitment and rating of the experimenters, checking the standardization of the instructions of the experimenters whether the experimental design was sufficient, how to recruit participants in the most proficient manner, and choosing research assistants to help with data collection and entry. No major concerns regarding the experimental design were found. There were no concerns regarding the standardization or instructions that the experimenters used, or any other questions or concerns regarding any aspect of the project or their effects on the participants' data. Being that the data in the pilot project was the data that the overall project was attempting to acquire; the results of the participants were added to the overall data set of the study.

**Information regarding Sample.** The final total participants consisted of 73 European Americans (44 female, 29 male), as well as 55 Native Americans (36 female, 19 male) college students from the University of North Dakota. Participants were recruited via the psychology department class recruitment, recruitments at the University of North Dakota’s Native American and Indian Studies Program, word of mouth recruitments by the research team, and sign up for participation was also available in the psychology department’s alcove. Finally, participants also signed up in the INPSYDE program’s main office. All Native American participants were screened with the BDI-II. Those
participants who scored above 28 (Moderate Depression) were excluded from the study and provided with appropriate mental health referrals.

Participants who met the selection criteria for the study were randomly assigned to three groups: the control group, who received no task, the Success group, who achieved 100% success on completing the tasks and the Failure group, who achieved 0% success on completing tasks.

Participants within each group were also assigned to either a European American or Native American study-blind examiner. In other words, 10 (out of 20 total) of the American Indian participants in the Success group were examined by an American Indian examiner and a Caucasian examiner examined the other 10. This pattern was repeated for the non-Indian participants in the other groups as well.

All participants were administered one set of 10 eight-letter anagrams and asked to produce certain words. The control group was given the set of anagrams, but were given the response of “that is incorrect; however, that is a good answer”. The control group was then given the follow up questionnaire on perceived success-failure for a comparison group. The Success group was asked to find a specific word that the examiner was looking for, and would receive a “correct” answer on 100% of the trials. The Failure group received a “wrong” on 100% of the trials. All participants were given two additional anagrams upon completion of the task, one easily solvable and 1 completely unsolvable. That was for counterbalancing of the participants. Data were recorded on number of and duration of attempts, the amount of time it took to complete the questionnaire, and the amount of time it took to complete the counterbalancing questions.
Upon completion of the task, participants were given the Concept Formation Task Questionnaire on their performance and perceptions of the experimenters. This questionnaire was used as the data collection for any possible learned helplessness effects and perceptions of authority figures. Results from the Success/Failure groups were compared to the control groups for comparisons and possible group differences. After administering the questionnaire, participants were given two more anagrams; one was easily solvable, and one was impossible. The easily solvable anagram was created using a simple 4 letter word (e.g., like) divided by 4 additional letters that appeared to make no relevant sense in creating a word. The unsolvable anagrams were given first followed by the easily solvable anagram, and were counterbalanced per cell. Participants were given a three-minute maximum to complete each anagram, and responses were measured and the time it took each participant to complete the anagrams were recorded.

Subject debriefing was conducted immediately following the final step of the study, and debriefing adhered to the APA code of ethics for debriefing.

Data Analysis

A total of six data analyses were carried out on the data set. The first was descriptive statistic analyses of all the demographic variables and scale items in order to examine the characteristics of the sample. The second set of analyses was descriptive Multiple Analysis of Variances (MANOVAS) investigating the three conditions (Success Failure, and Control Groups). The third set was independent sample t-tests that looked at mean differences and possible significant differences between Native American and European American groups and mean scores on various tests results. The fourth set of analyses was Pearson Product Moment Correlations that looked at possible age
differences among BDI-II scores and CFTQ scores. The fifth set of analyses consisted of Analyses of Variance (ANOVAs) with a follow-up TUKEY HSD that were used to look at any possible significant differences among the groups in relation to the hypotheses. Finally, Analyses of co-variance (ANCOVAs) were used to analyze any possible interaction effects with the researcher, Success, Failure, and Control groups and anagrams completed as well as time to complete the CFTQ.
RESULTS

The results are presented in six sections. In the first section, descriptive statistics are presented based on the sample and makeup of the participants and a brief description of the mean differences of the participants’ BDI-II scores. In the second section, MANOVAS looked at the descriptive of the three conditions (Success, Failure, and Control conditions. In the third section, descriptions of the participants’ results on the Concept Formation Task Questionnaire (CFTQ) are given. In the fourth section, results discussing descriptions of the cultural orientations of the participants as well as the researchers are discussed. In the fifth section, results focusing on the hypothesis that the higher the level of biculturalism or assimilated American Indian participants scores are on the NPBI, the lower their expression of learned helplessness would be as well as the converse of the lower the individual’s level of biculturalism is, the higher their degree of learned helplessness. The sixth section, results regarding the hypothesis that the examiner’s culture may also affect human learned helplessness.

Preliminary Analyses

Descriptive Statistics

In the demographics questionnaire, participants provided information such as their ethnicity, gender, age, year in school, and grade point average. Participants that were screened and selected for the study were randomly assigned to a Success, Failure, or Control group. Tables 1 and 2 describe the characteristics of the sample.
28 Native American. There were 6 (4.7%) in the American Indian Cultural Identification quadrant, 0 European American and 6 Native Americans (Traditional). There were 4 (3.1%) in the Marginal quadrant, 1 European American and 3 Native Americans. Finally, there were 89 (69.5%) in the European American Cultural Identification quadrant, with 18 being Native American (Assimilated) and 71 being European American. Figure 2 shows a bar graph of the total number of participants in each Cultural Quadrant in response to the two NPBI subscales. The Bar Graph represents the number of participants in each Cultural Identification (Figure 1). The first bar represents Biculturalism. The second bar represents Traditional American Indian Cultural Identification. The third bar represents Marginality, and the fourth bar represents European American Cultural Identification. The determination for how a subject met the requirements for a particular quadrant is determined by median scores. The median scores used in this study were determined by utilizing the medians suggested from a large data set of Native American NPBI participants from previous studies to more accurately determine quadrant classification. Overall, 122 participants chose extra-credit for a psychology course and 6 chose $5.00 for their participation.

Results pertaining to the researchers are also provided. Table 3 shows information regarding the ethnicity, gender, and the number and percentile of participants the researchers ran.
Table 1

Sample Characteristics

Demographic Characteristics of the Sample

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<thead>
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<th>Gender and Ethnicity Descriptives</th>
<th>Gender</th>
<th>Ethnicity</th>
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</thead>
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Class Descriptives

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<td>23.4</td>
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BDI-II Descriptives

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<th>Native American</th>
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Age Descriptives

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<td>Mean Age</td>
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Note: EA = European American; NA = Native American.
N = 128. 107 of the 128 participant reported GPA.
Table 2

Group Assignment Descriptives

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<tr>
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Table 3

Researcher Results

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<tr>
<td>Total</td>
<td>38</td>
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<td>29</td>
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Note. European American (EA); Native American (NA)
Table 4

Descriptive Statistics for Dependent Measures Analyzed in Present Study

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<td>Control Condition</td>
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<td></td>
<td></td>
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<td>EA</td>
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<td>EA</td>
<td>NA</td>
<td>EA</td>
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<td>CFTQ</td>
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<td>7.08</td>
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<td>4.1</td>
<td>7.26</td>
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<tr>
<td>Age</td>
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<td>23.9</td>
<td>23.0</td>
<td>20.1</td>
<td>28.6</td>
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<td></td>
<td>3.3</td>
<td>6.95</td>
<td>4.0</td>
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<td>Comp. Anag.</td>
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<td>10.0</td>
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<td>Anag. Time</td>
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<td>556.5</td>
<td>863.7</td>
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<td></td>
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<td>441.0</td>
<td>518.7</td>
<td>370.7</td>
<td>254.0</td>
<td>377.7</td>
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Cell # = Number of Participants per cell size.

Table 5

Descriptive Statistics Using Mahalanobis Distance

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<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
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<tr>
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<tr>
<td>Std. Predicted Value</td>
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<td>.000</td>
<td>1.000</td>
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<tr>
<td>Standard Error of Predicted Value</td>
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<td>.430</td>
<td>.134</td>
<td>.058</td>
<td>127</td>
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<tr>
<td>Adjusted Predicted Value</td>
<td>1.8153</td>
<td>2.3046</td>
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<td>Residual</td>
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<td>Std. Residual</td>
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<tr>
<td>Cook's Distance</td>
<td>.000</td>
<td>.073</td>
<td>.007</td>
<td>.009</td>
<td>127</td>
</tr>
<tr>
<td>Centered Leverage Value</td>
<td>.001</td>
<td>.267</td>
<td>.024</td>
<td>.035</td>
<td>127</td>
</tr>
</tbody>
</table>

*a Dependent Variable: Success, Failure, and Control Groups. Total N of study was 128, only 127 were accounted for here.*
Table 6
Outliers

According to Pallant, J. 05), Manovas are exceptionally sensitive to outliers, with exception to a few rules. In this case, only one participant, participant 11 in the Failure group was an outlier, which will not significantly impact the overall results of the study. This is determined by the Mahalanobis distance shown on Table 5 which would indicate that a participant would be an outlier if their score is 33.619 or higher. Here, this participant’s score is slightly in the outlier range, which, according to Pallant, is no significant concern in the results.
A 2 x 2 x 3 between groups multivariate analysis of variance was performed to investigate the effects of biculturalism on learned helplessness. Three dependent variables were used: CFTQ Totals, Number of Completed Anagrams, and Time to Complete Anagrams. The independent variables were the Ethnicity of the Researcher and the ethnicity of the Participants. Each participant was randomly placed into one of three conditions; Success, Failure, or Control Groups. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted.
**Concept Formation Task Questionnaire (CFTQ) Characteristics.**

The participants' minimum score was 73, with a maximum score of 120. In determining if a participant's score was considered to be within the Learned Helplessness range, their score must be two standard deviations or more above the mean, or a score of 118 or higher. This was determined by the creator of the CFTQ, and appears to be the standard for setting what would be considered outliers in most psychological testing materials.

The mean score on the CFTQ for European Americans was 89.71 (SD = 7.79), and 90.25 (SD = 7.75) for Native Americans. The Success Group CFTQ mean score was 88.88 (SD = 7.97), the Failure Group the CFTQ mean score was 89.93 (SD = 7.66), and the Control Group had a CFTQ mean score of 91.05 (SD = 7.62). CFTQ mean score for the European American Male Researcher was 89.84 (SD = 7.58). The CFTQ mean score for the European American Female was 92.71 (SD = 7.02). The CFTQ mean score for the Native American Male was 87.86 (SD = 8.14). The CFTQ mean score for the Native American Female was 89.23 (SE = 7.74).

**Independent Sample T-Tests**

Independent t-tests were conducted to test possible differences in age between the two Cultural Groups. There were no statistical differences among Native American and European American mean ages (t = .004), with the mean age of Native Americans being 24.51 and European American mean age being 20.9. A second t-test looked at possible differences in the two cultural groups and the BDI-II scores. No significant differences were found (t = .343).
Pearson Correlations

There were two Pearson correlations that were conducted looking at age on BDI-II scores and CFTQ scores. There were no significant differences between CFTQ scores and BDI-II scores ($p = 0.75$). There was a statistically significant difference between age and CFTQ scores ($p = 0.004$) showing a positive correlation. As the age of the Native American participant increased, so did their CFTQ scores. In other words, the older Native American students were the students who had significant Learned Helplessness scores in accordance to their CFTQ score.

Table 8

Pearson Product-Moment Correlation

<table>
<thead>
<tr>
<th>Item</th>
<th>BDI-II</th>
<th>AGE</th>
<th>CFTQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDI-II</td>
<td>-----</td>
<td>NA</td>
<td>.750</td>
</tr>
<tr>
<td>AGE</td>
<td>NA</td>
<td>-----</td>
<td>* .004</td>
</tr>
<tr>
<td>CFTQ</td>
<td>.750</td>
<td>* .004</td>
<td>----</td>
</tr>
</tbody>
</table>

Note. Correlation of Age and BDI-II not significant (.750). *Correlation of Age and CFTQ score is significant at $\gamma = 0.004$.

It was hypothesized that the higher the level of biculturalism or assimilated an American Indian participant was, the lower their expression of learned helplessness would be. Conversely, it was also hypothesized that the lower the individual's level of biculturalism is (e.g., traditional or marginal), the higher their degree of learned
helplessness would be exhibited. The other hypothesis was that the ethnicity of the
leadership figure (or researcher) would also impacts a Native American’s learned
helplessness. Evidence of learned helplessness was measured both behaviorally and
cognitively. The behavioral measures that would suggest learned helplessness would be
participants’ results on the anagrams given. Learned helplessness results would be the
number of anagrams completed as well as the time it would take a participant to complete
the anagrams. The cognitive measure of learned helplessness was a self report measure
of how a participant perceived their performance, called the Concept Formation Task
Questionnaire (CFTQ) to determine any possible cognitive perceptions of learned
helplessness. ANOVAs were conducted to analyze the results with the alpha level set at
.05. This was done to determine if there were any significant differences between the
numbers of anagrams completed, the length of time taken to complete the anagrams, and
the CFTQ Totals. Comparisons between the three randomized groups of participants
(Success, Failure, or Control) were compared on the anagrams, with follow-up analyses
to further determine which specific groups as well as cultural orientation of the
researchers may have resulted in any significant differences, therefore suggesting learned
helplessness in the targeted group (Native Americans).
Table 9

Summary of Univariate Analysis of Number of Completed Anagrams

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>N2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cult ID of Researcher</td>
<td>1, 110</td>
<td>.007</td>
<td>.000</td>
<td>.935</td>
</tr>
<tr>
<td>Participant Cult ID</td>
<td>1, 110</td>
<td>.098</td>
<td>.001</td>
<td>.754</td>
</tr>
<tr>
<td>SFC Group</td>
<td>2, 110</td>
<td>4.214</td>
<td>.071</td>
<td>.017*</td>
</tr>
<tr>
<td>Cult ID of Researcher *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participant Cult ID</td>
<td>1, 110</td>
<td>2.014</td>
<td>.008</td>
<td>.343</td>
</tr>
<tr>
<td>Cult ID of Researcher *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFC Group</td>
<td>2, 110</td>
<td>1.538</td>
<td>.027</td>
<td>.219</td>
</tr>
<tr>
<td>Cult ID of Researcher *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participant Cult ID *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFC Group</td>
<td>2, 110</td>
<td>4.059</td>
<td>.069</td>
<td>.020*</td>
</tr>
</tbody>
</table>

Note. * = p < .05. See Figure 4 for Line Graph representing results of Number of Anagrams completed by the participants as a function of experimenter ethnicity.

Table 10

Post Hoc Tests of Main Effects of SFC Group and Number of Completed Anagrams

<table>
<thead>
<tr>
<th>SFC Grp</th>
<th>SFC Grp</th>
<th>Mean Diff.</th>
<th>std. error</th>
<th>95% Confidence Interval sig.</th>
</tr>
</thead>
</table>

41
Table 10 above shows that there is a statistically significant difference between the Success Group and Failure group on the number of anagrams completed. In addition, there is also a statistically significant difference between the Failure and Control group on the number of completed anagrams. There is no statistically significant difference between the Success and Control groups.

Table 11

Comparison Analyses #1

European American Participant results on Number of Completed Anagrams

<table>
<thead>
<tr>
<th></th>
<th>2/2</th>
<th>1/2</th>
<th>2/1</th>
<th>1/1</th>
<th>1/3</th>
<th>2/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/2</td>
<td>-</td>
<td>.63</td>
<td>.67</td>
<td>.85</td>
<td>1.07</td>
<td>1.17</td>
</tr>
<tr>
<td>1/2</td>
<td>-</td>
<td>-</td>
<td>.04</td>
<td>.22</td>
<td>.44</td>
<td>.54</td>
</tr>
<tr>
<td>2/1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.18</td>
<td>.40</td>
<td>.50</td>
</tr>
<tr>
<td>1/1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.22</td>
<td>.32</td>
</tr>
<tr>
<td>1/3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.10</td>
</tr>
</tbody>
</table>

Native American Participant results on Number of Completed Anagrams

<table>
<thead>
<tr>
<th></th>
<th>1/2</th>
<th>2/3</th>
<th>2/2</th>
<th>1/1</th>
<th>1/3</th>
<th>2/1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * = (p < .05) 1 = Success Group; 2 = Failure Group; 3 = Control Group. See Figure 3 for Line Graph representing results of Anagrams completed by the participants as a function of experimenter ethnicity.
Table 11 above shows no statistically significant differences between the Ethnicity of the Researcher and European American participants on the number of completed anagrams. There are statistically significant differences between the Cultural Identity of the Researcher and Native American participants on the number of completed anagrams. There are significant differences with Native American Failure Group answering the fewest completed anagrams when the Researcher was European American in comparison to the other groups.

Table 12

Comparison Analyses #2

<table>
<thead>
<tr>
<th>Success Group results on Number of Completed Anagrams</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/1 1/1 1/2 2/2</td>
</tr>
<tr>
<td>2/1   -  .18  .6  .6</td>
</tr>
<tr>
<td>1/1   -   -   .42 .42</td>
</tr>
<tr>
<td>1/2   -   -   -   .0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Failure Group results on Number of Completed Anagrams</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2 2/1 1/1 2/2</td>
</tr>
</tbody>
</table>
Table 12 above shows no statistically significant differences in the Success Groups. The failure Group answered more complete anagrams when the Ethnicity of the Researcher was Native American. There were no significant differences in the Control Group.

A 2 x 2 x 3 ANOVA was conducted on the Success, Failure, and Control Groups and the number of completed anagrams. Results yielded a significant difference between the three randomized groups and number of anagrams completed. Further simple effects analysis were conducted on the randomized groups and number of completed anagrams, and results revealed a significance among Native American participants in the Failure groups as compared to the other two groups. Further analysis indicated a significant difference such that the Native American participants in the presence of the European
American researcher answered the fewest number of anagrams and comparatively answered more anagrams when the researcher was Native American.

Table 13

Summary of Univariate Analysis of Time to Complete Anagrams

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>N2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity of Researcher</td>
<td>1, 110</td>
<td>.105</td>
<td>.001</td>
<td>.747</td>
</tr>
<tr>
<td>Participant Ethnicity</td>
<td>1, 110</td>
<td>3.272</td>
<td>.029</td>
<td>.073</td>
</tr>
<tr>
<td>SFC Group</td>
<td>2, 110</td>
<td>6.661</td>
<td>.108</td>
<td>.002*</td>
</tr>
<tr>
<td>Ethnicity of Researcher *</td>
<td>1, 110</td>
<td>2.868</td>
<td>.025</td>
<td>.093</td>
</tr>
<tr>
<td>Participant Ethnicity</td>
<td>1, 110</td>
<td>1.441</td>
<td>.026</td>
<td>.241</td>
</tr>
<tr>
<td>Ethnicity of Researcher *</td>
<td>2, 110</td>
<td>4.365</td>
<td>.074</td>
<td>.015*</td>
</tr>
<tr>
<td>Participant Ethnicity* SFC Group</td>
<td>2, 110</td>
<td>4.365</td>
<td>.074</td>
<td>.015*</td>
</tr>
</tbody>
</table>

Note. * = p < .05. See table 5 for the scores across the conditions as a Function of Experimenter and Participant Ethnicity.

Table 14

Post Hoc Tests of Main Effects of SFC Group on Time to Complete Anagrams
<table>
<thead>
<tr>
<th>SFC Grp</th>
<th>SFC Grp</th>
<th>Mean Diff.</th>
<th>std. error</th>
<th>95% Confidence Interval sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>-117.0244*</td>
<td>38.43571</td>
<td>.008*</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>-131.4329*</td>
<td>38.67519</td>
<td>.003*</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>117.0244*</td>
<td>38.43571</td>
<td>.008*</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>-14.4085</td>
<td>38.67519</td>
<td>.296</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>131.4329*</td>
<td>38.67519</td>
<td>.003*</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>14.4085</td>
<td>38.67519</td>
<td>.926</td>
</tr>
</tbody>
</table>

Note. * = (p < .05) 1 = Success Group; 2 = Failure Group; 3 = Control Group.

Table 14 above shows that there are statistically significant differences between Success and Failure Groups on the time it took to complete the anagrams. There are also statistically significant difference among the Success and Control Groups on time to complete the anagrams. There are no statistically significant differences between the Failure and Control Groups.

Table 15
Comparison Analyses #3

Success Group results on Time to Complete Anagrams

<table>
<thead>
<tr>
<th></th>
<th>1/2</th>
<th>2/2</th>
<th>2/1</th>
<th>2/2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2</td>
<td>-</td>
<td>8.7</td>
<td>17.9</td>
<td>26.45</td>
</tr>
<tr>
<td>2/2</td>
<td>-</td>
<td>-</td>
<td>9.2</td>
<td>17.75</td>
</tr>
<tr>
<td>2/1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8.55</td>
</tr>
</tbody>
</table>
Failure Group results on Time to Complete Anagrams

<table>
<thead>
<tr>
<th></th>
<th>1/1</th>
<th>2/1</th>
<th>2/2</th>
<th>1/2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1</td>
<td></td>
<td>12.64</td>
<td>79.64</td>
<td>135.74</td>
</tr>
<tr>
<td>2/1</td>
<td></td>
<td></td>
<td>67.00</td>
<td>123.10</td>
</tr>
<tr>
<td>2/2</td>
<td></td>
<td></td>
<td></td>
<td>56.1</td>
</tr>
</tbody>
</table>

Control Group results on Time to Complete Anagrams

<table>
<thead>
<tr>
<th></th>
<th>2/1</th>
<th>1/2</th>
<th>1/1</th>
<th>2/2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/1</td>
<td></td>
<td>38.20</td>
<td>136.33</td>
<td>280.42**</td>
</tr>
<tr>
<td>1/2</td>
<td></td>
<td></td>
<td>98.13</td>
<td>242.22*</td>
</tr>
<tr>
<td>1/1</td>
<td></td>
<td></td>
<td></td>
<td>144.09</td>
</tr>
</tbody>
</table>

Note. (* = p<.05; ** = p<.01). The first number in the fractures represents: 1=EA Researcher, 2=NA Researcher. The second number in the fracture represents: 1=EA Participants, 2=NA Participants.

Table 15 above shows no statistically significant differences in the Success or Failure Groups. In the Control Group, the European American participants answered quicker than the Native American participants when the Researcher’s ethnicity was both European American and Native American.

A 2 x 2 x 3 ANOVA was conducted on the Success, Failure and Control Groups and the time it took each group to complete the anagrams. Results revealed a significant interaction between the randomized groups of participants and the time to complete the anagrams. A simple effects analysis was then conducted, and revealed significance in the time to complete the anagrams in the Control Group as compared to the Success and Control Groups. The European American participants answered quicker than the Native American participants.
American participants when the Researcher's cultural identity was both European American and Native American.

In regards to the counter anagrams presented to the participants, no significant differences were found in regards to the number of, or the time to complete the anagrams by the participants in either cultural group.

Table 16

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity of Researcher</td>
<td>1, 116</td>
<td>2.871</td>
<td>.093</td>
</tr>
<tr>
<td>Participant Ethnicity</td>
<td>1, 116</td>
<td>.410</td>
<td>.523</td>
</tr>
<tr>
<td>SFC Group</td>
<td>2, 116</td>
<td>.584</td>
<td>.559</td>
</tr>
<tr>
<td>Ethnicity of Researcher *</td>
<td>1, 116</td>
<td>4.791</td>
<td>.031*</td>
</tr>
<tr>
<td>Participant Ethnicity *</td>
<td>1, 116</td>
<td>.687</td>
<td>.505</td>
</tr>
<tr>
<td>Ethnicity of Researcher *</td>
<td>2, 116</td>
<td>.395</td>
<td>.675</td>
</tr>
</tbody>
</table>

Note. * = p < .05. Significant difference between the Ethnicity of the Researcher and the Ethnicity of the participants on CFTQ Total scores.
Table 17

Univariate Analysis of the Ethnicity of the Researcher and the Ethnicity of the Participants on the CFTQ Total Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFC Group</td>
<td>2,122</td>
<td>.64</td>
<td>.528</td>
</tr>
<tr>
<td>Ethnicity of Researcher</td>
<td>1,122</td>
<td>.30</td>
<td>.585</td>
</tr>
<tr>
<td>Ethnicity of Researcher *</td>
<td>1,122</td>
<td>.18</td>
<td>.676</td>
</tr>
<tr>
<td>EA Part.</td>
<td>1,122</td>
<td>7.38</td>
<td>.008*</td>
</tr>
</tbody>
</table>

Note. * = p < .01. Significant difference between the Ethnicity of the Researcher and the Native American participants on CFTQ Total scores.

Table 18

Comparisons of Mean Differences on Cultural ID of Researcher and Native American participants on CFTQ Total scores.

<table>
<thead>
<tr>
<th>Researcher Ethnicity</th>
<th>Mean</th>
<th>N</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>European American</td>
<td>87.4286</td>
<td>28</td>
<td>6.16098</td>
</tr>
<tr>
<td>Native American</td>
<td>93.1852</td>
<td>27</td>
<td>8.22771</td>
</tr>
</tbody>
</table>

Note. Mean difference between the Ethnicity of the Researcher and the Native American participants on CFTQ Total scores.

A 2 x 2 x 3 ANOVA was conducted on the Researcher Ethnicity and Participant Ethnicity on the CFTQ total scores. Results yielded a significant interaction between the
cultural identity of the researcher and the cultural identity of the participants. A simple effects analysis was then conducted on Researcher Ethnicity and CFTQ totals, and revealed significance among Native American participants such that the Native American participants scored higher on the CFTQ total in the presence of the Native American researcher than those in the presence of the European American researcher. As mentioned earlier, participants who score 75 or higher on the CFTQ rate in the learned helplessness range.
Simply stated, the hypotheses seemed to be supported by the data. The higher the level of biculturalism or assimilated American Indian participants scores are on the NPBI, the lower their expression of learned helplessness would be. The result regarding the hypothesis that the examiner’s culture may also affect human learned helplessness among Native Americans was also supported. It does appear that the higher the level of biculturalism or assimilated a Native American is, the lower their expression of learned helplessness appears. This appeared evident in both the behavioral and cognitive measures of learned helplessness in that all results of this study supported the hypotheses that Traditional or Marginal Native Americans may show signs of learned helplessness; especially in the presence of authority figures they are not familiar with, specifically European American authority figures in this study.

The findings in this study that suggests that the Native Americans who were in the Failure group did indeed complete fewer anagrams than those in the Success group, and took longer times to complete the anagrams than their European American counterparts. Furthermore, the Native American Success group did perceive that they were indeed more successful than the Failure group, as evidenced by the statistically significant differences in CFTQ scores among the Failure group in comparison to the Success and Control.
groups. This supports the hypothesis that those in the Success group will score
differently (higher) on the learned helplessness questionnaire than the Failure group.
Those individuals who often work with Native Americans in school settings (to include
adolescents and adults) often see that when the Native American student perceived that
they could not successfully accomplish a task, they would often quit or not take enough
time to thoroughly think through a given task. Unfortunately, no research specifically
looking at, or explaining learned helplessness with Native Americans are mentioned.
This is important in the areas of how teachers and other professionals can work with
those Native Americans who have difficulty relating to others and perceiving that they
cannot succeed at any tasks given to them that are challenging.

The Native Americans used in this study were all from a relatively localized and
rural area, and were all attending the University of North Dakota (UND). In addition, we
had to extend our initial recruitment of grade levels from Freshmen and Sophomore
students to all Native Americans to meet needed number sizes. Interestingly, although
prior research mentions that when using college students for learned helplessness studies,
it is best to only include Freshman and Sophomores, because students who are beyond
those classes tend to develop new skills that are necessary to overcome learned
helplessness effects. Data in this study did support the clinical notion of learned
helplessness with the Traditional and Marginal Native Americans.

The Native Americans that are Bicultural or Assimilated have much less
difficulties in relating to, and coping with, the demands of the majority culture in which
they are in. Conversely, the Marginal Native American that can not relate to most
situations which would often result in anxiety and therefore avoidance, which would lead
to feelings of helplessness and distress. Furthermore, the Traditional or Marginal Native American may have fewer skills necessary in either cultural orientation to overcome learned helplessness. Although the Native American students that are Traditional or Marginal may have shown learned helplessness and may not relate as comfortably as those Native Americans that are Bicultural or Assimilated (European American culturally identified), they may still possess many of the internal skills necessary to overcome learned helplessness. This explanation would be consistent with writings supporting the Orthogonal Theory of Biculturalism.

The demographics investigating the three conditions suggest that there was equivalence among all three conditions. There was only one primary outlier with this study, and this outlier did not contribute to any significant changes in the results.

The mean age of the sample of the Native American college students was somewhat older than mean age of the European American college students. There was also a higher representation of female participants, both Native and European American. These results are consistent with other types of research concerning Native American college students (McDonald, 1992; Price et al., 1992). The Native American college samples in similar studies tended to be older than European American culture students, with a majority of Native American students being female. This age and gender difference may be important in this study, as the results show that the younger Native Americans were the ones who showed learned helplessness.

Another important area to discuss is the median scores used in this study to categorize American Indian participants into the different bicultural quadrants, and the possible positive and negative effects this may have had. Prior research utilizing the
NPBI used different median scores for determining cultural identification. The authors suggest utilizing the “median split” technique in order to classify participants into the four quadrants. This study utilized median scores gleaned from a large database of Native American participants that were gathered and entered by the Indians in Psychology Doctoral Education (INPSYDE) Program at UND across several recent studies. The median scores originally developed from the NPBI involved only 73 participants, while the INPSYSDE Program database’s sample was 516. The median scored suggested by the authors of the NPBI suggested median scores of 40 for the AICI, and 35 for the EACI (Allen and French, 1994). Using the median scores with the large sample produced median scores of 39 for the AICI and 30 for the EACI. Utilization of the INPSYDE-generated NPBI median scores may indeed have increased the validity of determining an individual’s identification; however, it also hampered this study to a degree in that there was a greater disparity in subject distribution among the quadrants than when one employs a median-split technique. Stated alternately, the median-split technique works well in terms of ensuring more equal assignment of participants into the four bicultural quadrants, yet truly valid membership in those quadrants are clearly sacrificed. This was the first known study in which the more reliable norms for the NPBI were employed, and although it provided greater assuredness that the American Indian participants were “where they should be” in terms of classification, and ultimately, in the data analysis and results. It was a difficult decision to utilize the INPSYDE NPBI norms, but it appears more scientifically responsible to use them. Further studies should utilize the INPSYDE NPBI forms as well, but take extra steps in terms of subject recruitment (e.g., “blocking” or “matching”) to ensure adequate numbers in each quadrant. Although it hampered an
equal distribution of the participants in the four quadrants, it can also be seen as strength, whereas the participants are more likely to be healthy individuals in the Bicultural, Traditional, and Assimilated cultural orientations.

Since the significant findings for were in the Failure Group in this study, some additional correlations were looked at. A majority of the participants in the Failure group indicated that their grade point average was 3.0 or higher. This is relatively surprising, since it would be expected that the lower grade point average may result in higher levels of learned helplessness. Most participants in the Failure group reported ages of twenty-two or younger. This was expected, as it was the younger participants who scored highest on the CFTQ. Finally, and surprisingly, Juniors rated highest as the primary grade level in the Failure group. The next two groups that tied for the next highest were Seniors and Freshman. The fourth group was Sophomores, and finally Graduates. This is somewhat unique, as prior research on learned helplessness with humans suggests that prior learned helpless studies recommend not using students in Junior years or higher (Wilson, Seybert, and Craft, 1980).

This study did not find any significant results with the Native Americans, or European Americans, who did identify with the European American or Bicultural cultures, which was predicted and expected from the hypotheses. The research that is known by the author does mention that those Native Americans that can relate to the dominant culture has a better degree of functioning, behavior, and well being than those Native Americans who do not (LaFromboise, T. D., Coleman, H. L. K., & Gerton, J. 1993). This study does support that theory. Conversely, it is also mentioned in Native American mental health literature that the Marginal Native American has an increase in
distress and difficulties in functioning in cultures that they can not understand or adapt sufficiently to. This research also supports this theory with the findings of the Marginal Native Americans as well.

It was a positive finding that there were no significant results found in any degree with the accepted BDI-II scores and learned helplessness. There can be an argument that, although their scores were below the cutoff, some individuals may have been approaching that cut off score and may have contributed to the results of learned helplessness with the Marginal Native Americans who exhibited learned helplessness results. There appeared to be no statistical results that suggest that those who were accepted for the study and had higher BDI-II scores were the individuals who showed learned helplessness.

In regards to the gender distributions in the study, most of the participants in this study were female. How this may impact the results is not known. In the Success, Failure, and Control Groups, the majority of the participants were female. Interestingly, of the Researchers, the Native American Male had more males than females. All other Researchers had more females than males. The results of this study indicated the significant differences were with Native American Participants with European American Researchers in the Failure Group. Future research investigating cultural impacts on learned helplessness may yield different results if gender was evenly distributed among all groups.

A potential study limitation is that the participants were solicited later on in the semesters, and not early in the fall semester when most Native Americans first attempt attending a University in a majority culture environment. Therefore many Native American college students who may have experienced learned helplessness symptoms
may have been missed. It has been theorized that most Native American college students that have problems adapting, coping, and dealing with anxiety and avoidance (and learned helplessness) would be most likely to be found in the early fall semester due to a lack of bicultural competence, and also most likely to return to their home settings rather than stay enrolled in college McDonald, J.D. (1992). This study may have missed those students who dropped out before we could recruit them.

Another limitation to the study is that there were not enough participants in each group to accommodate an equal number in each of all the groups under investigation. When this occurs, there is concern for unequal cell sizes and normalcy in studies. It is unknown in this study that larger numbers or equal cell sizes would have produced different results. Some of the statistics that we would like to have conducted may have produced different results, like normal cell sizes with the European American groups or the Traditional Native American cultural group.

In regards to the significant results that suggest that the authority figure’s cultural identity also plays a role in learned helplessness effects of the participant, one thing that was not investigated in this study was the possible familiarity of the authority figure verses ethnicity. It is possible that there may be a confound in regards to the cultural identity of the researcher and how the participant may know the researcher. The Native American population at the university where this study was conducted was relatively small, and Native American students, and many students overall, know each other to some degree. To the degree that familiarity between the researchers and participants was not investigated, and therefore, is not known on how much that may or may not impact learned helplessness.
Finally, there are still questions regarding the validity of the NPBI. In this study, it does appear that modifying the median scores appeared to improve the predictive power of the NPBI, but more research needs to be done to support or refute that theory.

Cross-cultural research continues to be a much-needed area of psychology today. Unfortunately, few research projects are being conducted investigating the cultural impacts in individuals. Even less research is being done investigating the bicultural impact on minorities. Even though this project yielded some significant and interesting results, more research should be conducted investigating biculturalism on minorities. Overall, it is theorized that an individual’s level and degree of biculturalism significantly impacts his/her psychological well-being. Further research into these issues therefore should be continued.
APPENDICES
My name is Alan H. Storey Jr., and I am a senior graduate student in the Clinical Psychology program at UND. My primary interests in psychology are multi-cultural/diversity mental health, Posttraumatic Stress Disorder, Depression, and Anxiety disorders. My office is #314 in the Corwin Larimore building, and I am available on campus on Mondays, Thursdays, and Fridays. I enjoy spending time with my family, fitness and nutrition, fishing, and camping. I am currently working on my doctoral dissertation, and if you have any questions or comments regarding the project, please feel free to contact me at any time. Thank you for your time and participation.

You are invited to participate in a study that is attempting to examine the effect of biculturalism on task solving among Northern Plains Native American and European American college students. During the session you will complete a number of short questionnaires. The purpose of this study is to increase the understanding of the relationship between biculturalism and task solving. The benefits of this research will help Native and non-Native counselors/psychologists become more aware of the challenges that an individual's cultural orientation may present.

The foreseeable risks are minimal. All information is strictly confidential and anonymous. You will be assigned a subject number and at no time will your name be used in the data collection, entry, or analysis processes. The raw data and consent forms were stored in a separate and secure file cabinet and data will be kept for a minimum of 3 years after the completion of the study. The data and consent forms will be stored in the INPSYDE office, and only the researcher, the adviser, [if applicable] and the people who audit IRB procedures will have access to the data.

The expected time of participation of the study is up to 3 hours. You will receive one hour of credit per hour of participation for any psychology course of your choice. If you are not enrolled in any psychology courses, $5.00 per hour will be given for your participation. If you decide to participate, you may withdraw at any time without penalty.

If you have any further questions regarding this study or related matters, or if in the future you have questions or want to know the results, please contact the investigators. Dr. McDonald is the supervisor of this study and can be reached at 777-4495. Alan Storey Jr., M.A., the primary investigator, can be contacted at the Indians into Psychology Doctoral Education (INPSYDE) program at 777-4497. You may also contact the Office of Research and Program Development (ORPD) at: 777-4279. If you experience any difficulties as a result of the study, and you want to speak to a mental health professional, you may call the Psychological Services Center (PSC) at 777-3691, or the UND Counseling Center at 777-2127.

I have read the above information and I am willing to agree to participate in this study.

Signature of Subject
Date:

Please check your preference:

_____ I am enrolled in a psychology course and would like extra credit in a psychology course **NAID**, name and address: ______________________________________

Psychology course in which you are (or plan to be) enrolled: ______________________________________

_____ I would like to receive $5.00 per hour for my participation (give name & address to mail to) Name and address: ______________________________________
APPENDIX B
Demographic Questionnaire

Please complete the following information as accurately as possible. All information is strictly confidential and anonymous. This form will not include your name, only a subject number and at no time will your name be used in the data collection process. This will ensure that you will not be linked to the information given. Please complete all questions as best as possible. Thank you.

1. Your age: ___________

2. Your gender: Male ________ Female ________

3. Tribal Affiliation: __________________________

4. Current class ranking? (Check only one)
   _____ a. Freshman
   _____ b. Sophomore
   _____ c. Junior
   _____ d. Senior
   _____ e. Graduate
   _____ f. Other (please specify): __________________________

5. What is your current major? __________________________

6. What is your current GPA? __________________________
APPENDIX C
NORTHERN PLAINS BICULTURALISM SCALE

NPBI (Northern Plains Biculturalism Inventory) _________________________College

These questions ask you to describe your attitudes, feelings, and participation in Indian and White culture. Some of the questions may not apply to you. In these cases, one of the possibly answers allows you to note this.

Read each question. Then fill in the number above the answer that seems most accurate for you, as in the example below.

<table>
<thead>
<tr>
<th>Example: What is your degree of comfort with paper and pencil questionnaires?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ___ 2. ___ 3. ___ 4. X_ 5. ___</td>
</tr>
<tr>
<td>No comfort Some comfort Great comfort</td>
</tr>
</tbody>
</table>

In this example, the person felt moderate but not complete comfort with paper and pencil questionnaires, so filled in 4.

In the case of attitudes and feelings, your first impression is usually correct. We are interested in how much you are influenced by Indian and White culture regardless of your own ethnic background, keeping in mind that no two people have the same background.

1. What is your degree of comfort around White people?
   1. ___ 2. ___ 3. ___ 4. ___ 5. ___
   No comfort Some comfort Great comfort

2. What is your degree of comfort around Indian people?
   1. ___ 2. ___ 3. ___ 4. ___ 5. ___
   No comfort Some comfort Great comfort

3. How interested are you in being identified with Indian culture?
   1. ___ 2. ___ 3. ___ 4. ___ 5. ___
   No desire Some desire Great desire
4. How interested are you in being identified with White culture?
   1. ____  2. ____  3. ____  4. ____  5. ____
   No desire
   Some desire
   Great desire

5. How often do you think in English?
   1. ____  2. ____  3. ____  4. ____  5. ____
   Rarely or never think in English
   Half the time think in English
   Often or always think in English

6. How often do you think in an American Indian language?
   1. ____  2. ____  3. ____  4. ____  5. ____
   I rarely or never think in Indian language
   Half the time think in Indian language
   Often or always think in Indian language

7. How much confidence do you have in a medical doctor?
   1. ____  2. ____  3. ____  4. ____  5. ____
   I do not use medical doctors
   Have some faith in medical doctors
   Have strong faith in medical doctors

8. How much confidence do you have in the medicine man/woman?
   1. ____  2. ____  3. ____  4. ____  5. ____
   I do not use the medicine man/woman
   Have some faith in the medicine man/woman
   Have strong faith in the medicine man/woman
9. How much is your way of tracing ancestry White (focus on biological relative, descent through father)?

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<tbody>
<tr>
<td>1.</td>
<td>2.</td>
<td>3.</td>
<td>4.</td>
<td>5.</td>
</tr>
<tr>
<td>I trace none</td>
<td>I trace some</td>
<td>I can trace</td>
<td></td>
<td></td>
</tr>
<tr>
<td>of my ancestry</td>
<td>of my ancestry</td>
<td>all of my ancestry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>according to White custom</td>
<td>according to White custom</td>
<td>according to White custom</td>
<td></td>
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</tbody>
</table>

10. How much is your way of tracing ancestry Indian (cousins same as brothers and sisters, descent more through mother)?

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<td>1.</td>
<td>2.</td>
<td>3.</td>
<td>4.</td>
<td>5.</td>
</tr>
<tr>
<td>I trace none</td>
<td>I trace some</td>
<td>I can trace</td>
<td></td>
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<tr>
<td>of my ancestry</td>
<td>of my ancestry</td>
<td>all of my ancestry</td>
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<tr>
<td>according to</td>
<td>according to</td>
<td>according to</td>
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<td></td>
</tr>
<tr>
<td>Indian custom</td>
<td>Indian custom</td>
<td>Indian custom</td>
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11. How often do you attend Indian religious ceremonies (sweat lodge, Indian Peyote churches, Sundance, vision quest)?

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</thead>
<tbody>
<tr>
<td>1.</td>
<td>2.</td>
<td>3.</td>
<td>4.</td>
<td>5.</td>
</tr>
<tr>
<td>I have never attended Indian religious ceremonies</td>
<td>I sometimes attend Indian religious ceremonies</td>
<td>I attend Indian religious ceremonies frequently</td>
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</tr>
</tbody>
</table>

12. How often do you attend Christian religious ceremonies (Christenings, Baptisms, Church services)?

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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2.</td>
<td>3.</td>
<td>4.</td>
<td>5.</td>
</tr>
<tr>
<td>I never attend Christian religious ceremonies</td>
<td>I sometimes attend Christian religious ceremonies</td>
<td>I attend Christian religious ceremonies frequently</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
13. How often do you participate in popular music concerts and dancing?
   1. ___  2. ___  3. ___  4. ___  5. ___
   I never participate in popular concerts/dances
   I sometimes participate in popular concerts/dances
   I participate in popular concerts/dances frequently

14. How often do you participate in Indian dancing (Indian, Owl, Stomp, Rabbit, etc.)?
   1. ___  2. ___  3. ___  4. ___  5. ___
   I never participate in Indian dances
   I sometimes participate in Indian dances
   I participate in Indian dances frequently

15. To how many social organizations do you belong where a majority of the members are Indian?
   1. ___  2. ___  3. ___  4. ___  5. ___
   I belong to no Indian organizations
   I belong to some Indian organizations
   Several of the organizations I belong to are Indian organizations

16. To how many social organizations do you belong where a majority of the members are non-Indian?
   1. ___  2. ___  3. ___  4. ___  5. ___
   I belong to no non-Indian organizations
   I belong to some non-Indian organizations
   Several of the organizations I belong to are non-Indian organizations

17. How often do you attend White celebrations (White ethnic festivals, parades, barbecues)?
   1. ___  2. ___  3. ___  4. ___  5. ___
   I never attend White celebrations
   I attend some White celebrations
   I attend White celebrations frequently
18. How often do you attend Indian celebrations (Pow-Wows, Wacipi, Indian rodeos, Indian softball games, Indian running events)?
   1. ___  2. ___  3. ___  4. ___  5. ___
   I never attend  I attend  I attend
   Indian celebrations

19. Does anyone in your family speak an American Indian language?
   1. ___  2. ___  3. ___  4. ___  5. ___
   They rarely or never speak Indian
   They often or always speak Indian
   They speak Indian part of the time

20. How often does your family use English?
   1. ___  2. ___  3. ___  4. ___  5. ___
   They rarely or never speak English
   They often or always speak English
   They speak English part of the time

21. What is your use of English?
   1. ___  2. ___  3. ___  4. ___  5. ___
   I rarely or never speak English
   I often or always speak English
   I speak English part of the time

22. Do you speak an American Indian language?
   1. ___  2. ___  3. ___  4. ___  5. ___
   I rarely or never speak Indian
   I often or always speak Indian
   I speak Indian part of the time
23. To what extent do members of your family have traditional Indian last names (like "Kills-in-Water")?
   1. ____ 2. ____ 3. ____ 4. ____ 5. ____
   None have Indian names Some have Indian names All have Indian names

24. To what extent do members of your family have last names that are not traditional Indian last names (like "Smith")?
   1. ____ 2. ____ 3. ____ 4. ____ 5. ____
   None have White names Some have White names All have White names

25. How often do you talk about White topics and White culture in your daily conversation?
   1. ____ 2. ____ 3. ____ 4. ____ 5. ____
   I never engage in topics of conversation about Whites and their culture
   Sometimes engage in topics of conversation about Whites and their culture
   I engage in topics of conversation about Whites and their culture frequently

26. How often do you talk about Indian topics and Indian culture in your daily conversations?
   1. ____ 2. ____ 3. ____ 4. ____ 5. ____
   I never engage in topics of conversation about Indians and their culture
   Sometimes engage in topics of conversation about Indians and their culture
   I engage in topics of conversation about Indians and their culture frequently

27. Do you wear White fashion jewelry?
   1. ____ 2. ____ 3. ____ 4. ____ 5. ____
   I never wear fashion jewelry
   I sometimes wear fashion jewelry
   I often wear fashion jewelry
28. Do you wear Indian jewelry?
   1. ___    2. ___    3. ___    4. ___    5. ___
   I never wear Indian jewelry
   I sometimes wear Indian jewelry
   I often wear Indian jewelry

29. How Indian is your preference in clothing (dressing in bright colors, clothes with Native artwork)?
   1. ___    2. ___    3. ___    4. ___    5. ___
   I never dress according to Indian style
   I sometimes dress according to Indian style
   I often dress according to Indian style

30. How White is your preference in clothing (dress according to White style and fashion)?
   1. ___    2. ___    3. ___    4. ___    5. ___
   I never dress according to White style
   I sometimes dress according to White style
   I often dress according to White style
APPENDIX D
CONCEPT FORMATION TASK INSTRUCTIONS

(For Success Groups ONLY)

The University of North Dakota is participating in the development of norms and the standardization of a new test of reasoning ability. During the experiment we were working with a part of the test that taps your cognitive ability; that is, your ability to comprehend words from disorganized letters. I’ll also be asking you some questions about your attitudes and feelings, since that information is also quite important in developing norms. I hope you will try hard to do your best, as I’d like to be able to assume that your performance is a fair and accurate indication of your ability.

Okay, as I just described, you are about to participate in a task that will test your cognitive reasoning ability. You were looking at some letters that are arranged according in no particular order. You were looking for a particular word that can be made with those letters. Your job is to correctly figure what the particular word is that I am looking for. This feedback will tell you whether or not the word you have chosen is the appropriate one.

For Success participants:

(Your score on this test were based on your number of correct choices within the time limit and the amount of time and trials required in finding the appropriate word.)

The letter anagrams that you were receiving have the same format as this example.
There are 10 anagrams, and you are allowed one attempt per anagram. There is only one correct answer per anagram. You are to figure out what the word is by guessing which word I am looking for.

While working on the anagrams on the page, I will then inform you whether you were correct or incorrect and say, “Begin with the next anagram” then you are to attempt the next word. Even if you have answered incorrectly, you should continue attempting to find the correct word until I tell you to stop and go on to the next anagram.

Do you understand everything? Are you ready to begin?

(Anagrams presented here.)

(For Success Group only)

After each subject’s response, you respond with: “Yes, that is the specific answer, please begin with the next anagram.”

For Success participants:

Okay, I mentioned that part of developing norms involves understanding the feelings and attitudes people have during taking this test. So, after completing the task, I’d like you to estimate how well you did at completing the task (CFTQ administered following completion of letter anagrams).

(Debrief participants following the questionnaire)
For ALL Participants:

Following the questionnaire, administer 2 more anagrams: 1 easily solvable, and the other 1 completely unsolvable. This is for counterbalancing measures.
CONCEPT FORMATION TASK INSTRUCTIONS

(For Failure Groups ONLY)

The University of North Dakota is participating in the development of norms and the standardization of a new test of reasoning ability. During the experiment we were working with a part of the test that taps your cognitive ability; that is, your ability to comprehend words from disorganized letters. I’ll also be asking you some questions about your attitudes and feelings, since that information is also quite important in developing norms. I hope you will try hard to do your best, as I’d like to be able to assume that your performance is a fair and accurate indication of your ability.

Okay, as I just described, you are about to participate in a task that will test your cognitive reasoning ability. You were looking at some letters that are arranged according in no particular order. You were looking for a particular word that can be made with those letters. Your job is to correctly figure what the particular word is that I am looking for. This feedback will tell you whether or not the word you have chosen is the appropriate one.

For Failure participants:

(Your score on this test were based on your number of correct choices within the time limit and the amount of time and trials require finding the appropriate word.)

The letter anagrams that you were receiving have the same format as this example. (Show overhead of letter anagram example here)
There are 10 anagrams, and you are allowed one attempt per anagram. There is only one correct answer per anagram. You are to figure out what the word is by guessing which word I am looking for.

While working on the anagrams on the page, I will then inform you whether you were correct or incorrect and say, “Begin with the next anagram” then you are to attempt the next word. Even if you have answered incorrectly, you should continue attempting to find the correct word until I tell you to stop and go on to the next anagram.

(For Failure Group only)

Do you understand everything? Are you ready to begin?

(Anagrams presented here.)

After each subject’s response, you respond with: “That is a good try, however, please find the specific answer. Begin with the next anagram.”

For Failure Participants:

Okay, I mentioned that part of developing norms involves understanding the feelings and attitudes people have during taking this test. So, after completing the task, I’d like you to estimate how well you did at completing the task (CFTQ administered following completion of letter anagrams).

(Debrief participants following the questionnaire)
For ALL Participants:

Following the questionnaire, administer 2 more anagrams: 1 easily solvable, and the other 1 completely unsolvable. This is for counterbalancing measures.
CONCEPT FORMATION TASK INSTRUCTIONS

(For Control Groups ONLY)

The University of North Dakota is participating in the development of norms and the standardization of a new test of reasoning ability. We were looking at your ability to comprehend words from disorganized letters. I'll also be asking you some questions about your attitudes and feelings, since that information is also quite important in developing norms.

Okay, as I just described, you are about to participate in a task that will test your cognitive reasoning ability. You were looking at some letters that are arranged according in no particular order. You were looking for a particular word that can be made with those letters. Your job is to correctly figure what the particular word is that I am looking for.

There are 10 anagrams, and you are allowed one attempt per anagram. You are to figure out what the word is by guessing which word I am looking for.

Do you understand everything? Are you ready to begin?

(Anagrams presented here.)

(For Success Group only)

After each subject's response, you respond with: "That is incorrect; however, that is a good answer. Please begin with the next anagram"
Okay, I mentioned that part of developing norms involves understanding the feelings and attitudes people have during taking this test. So, after completing the task, I’d like you to estimate how well you did at completing the task (CFTQ administered following completion of letter anagrams).

(Debrief participants following the questionnaire)

For ALL Participants:

Following the questionnaire, administer 2 more anagrams: 1 easily solvable, and the other 1 completely unsolvable. This is for counterbalancing measures.
APPENDIX E

Concept Formation Task Questionnaire

The following questions are designed to assess your reactions to the cognitive reasoning concept formation task presented by the experimenter that you worked on earlier. It is important that you answer each question honestly so that we can determine what changes, if any, need to be made in the task. Answer by checking one interval on each of the scales below.

1. How would you evaluate the quality of your performance on the task?

<table>
<thead>
<tr>
<th>Thought I performed very well</th>
<th>Thought I performed poorly</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

2. How pleased were you with your performance on the task?

<table>
<thead>
<tr>
<th>Very disappointed</th>
<th>Very pleased</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
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<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

3. To what degree did you feel that your success or failure on the task was under your control?

<table>
<thead>
<tr>
<th>Entirely under my control</th>
<th>Not at all under my control</th>
</tr>
</thead>
<tbody>
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<td>7</td>
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<td>3</td>
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<td>1</td>
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</tbody>
</table>

4. To what extent did performing the task give you a sense of...

<table>
<thead>
<tr>
<th>Sense of helplessness</th>
<th>Sense of Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>3</td>
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<td>7</td>
<td></td>
</tr>
</tbody>
</table>
5. To what extent did you feel that no matter what you tried to do, you couldn’t solve the problem?

<table>
<thead>
<tr>
<th>Did not feel</th>
<th>Felt that way to a very great extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>That way at all</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
Please answer questions 10-13 by filling in the blank in each question with a number taken from the scale below. This scale indicates how much influence you think various factors had in determining your level of performance on the cognitive reasoning concept formation task, which was presented to you earlier.

0 = definitely no influence
1 = slight influence
2 = moderate influence
3 = considerable influence
4 = strong influence
5 = very strong influence

(Order B)

10. The difficulty of the task had _____influence in determining my level of performance on the task.

11. The amount of Effort I expended had _____influence in determining my level of performance on the task.

12. Luck had _____influence in determining my level of performance on the task.

13. Ability had_____influence in determining my level of performance on this task.

(Order A = Reversal of Q. #10-13)

Answer questions 14-20 by again checking one interval on each of these scales.

14. How difficult did you find the task?

Very difficult

7 6 5 4 3 2 1

Easy

15. How difficult do you think this task would be for the average student of your culture?

Easy

1 2 3 4 5 6 7

Very difficult
16. How important was it for you to do well on the task?

<table>
<thead>
<tr>
<th>Not at all important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

17. How certain were you that you solved the problem?

<table>
<thead>
<tr>
<th>Very certain</th>
<th>Very uncertain</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 6 5 4 3 2 1</td>
<td></td>
</tr>
</tbody>
</table>

18. How friendly did you feel toward the experimenter?

<table>
<thead>
<tr>
<th>Very unfriendly</th>
<th>Very friendly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

19. How did you feel toward the cultural orientation of the experimenter?

<table>
<thead>
<tr>
<th>Very uncomfortable</th>
<th>Very comfortable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

20. To what degree did you feel the cultural orientation of the experimenter influenced your performance?

<table>
<thead>
<tr>
<th>Very Little Influence</th>
<th>Mostly Influenced</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
21. To what extent did you feel that the experiment was part of separate research project?

<table>
<thead>
<tr>
<th>Felt they were definitely different</th>
<th>Felt they were definitely the same</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 6 5 4 3 2 1</td>
<td></td>
</tr>
</tbody>
</table>

22. How much experience have you had with tasks similar to the cognitive reasoning concept formation task?

<table>
<thead>
<tr>
<th>None</th>
<th>Quite a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

23. How much do you think that there may be possible other effects on your responses other than the task itself?

<table>
<thead>
<tr>
<th>None</th>
<th>Quite a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

23. What may those other effects be?

---
APPENDIX F
DEBRIEFING STATEMENT

Thank you for your participation in this study! You have just participated in a study that involved deception. Although deception was involved, it was necessary to evoke the necessary response. Your participation is greatly appreciated, and were very helpful both in research and clinical importance. During the anagram testing phase, the researcher gave you predetermined responses. This research has been approved by the University of North Dakota’s Institutional Review Board (IRB) prior to the study.

Basically, the research is primarily looking at Learned Helplessness Effects in college students, as well as perceptions of authority figures on possible influences on Learned Helplessness Effects.

The independent variable, or the manipulated variable, was when the researcher informed you that either you were correct or incorrect with your answers to the anagrams presented, which was predetermined by the group you were randomly assigned to. This was necessary in establishing the affective state we are looking for.

Your responses to the anagrams and your answers to the questionnaire is the dependent, or measured variables measuring Learned Helplessness Effects and perceptions of authority figures.

If you have any questions or comments, please feel free to contact me, Alan H. Storey Jr., the primary investigator. In addition, if you wish to speak to the Office of Research and Program Development (ORPD), or a mental health professional regarding the study or possible psychological effects, the numbers are available on the signed Informed Consent form you received at the onset of the study. Please feel free to contact me if you wish to speak to me, or have any further questions or comments regarding the study.

Again, thank you very much for your time, understanding, and participation in the study. Finally, if you would like the results of the study when finished, please feel free to contact me, the primary investigator, and I were glad to provide you with the results of the study.

Sincerely,
Alan H. Storey Jr., M.A.
Senior Clinical Psychology Graduate Student
APPENDIX G
EXAMPLE ANAGRAM

htobpiwe (wipe)
1st ANAGRAM

livipkwez (like)
2nd ANAGRAM

nqprxbkt (nothing)
(Ten, eight letter anagrams)

1. beaoskodtg (books)
2. rtsagmeckp (great)
3. dlompsnehu (ponds)
4. fkistlghusa (gifts)
5. gdoprmnisk (drink)
6. xaktfstenr (after)
7. lagohtsecr (heart)
8. znlsihagwt (night)
9. kpelnsabij (plain)
10. vipsofrjed (lover)
APPENDIX H

FIIP RATING FORM (REVISED)

Examine the general characteristics or personality features identified below. Please use this rating form to describe your perception of the individuals on the audiotapes. Rating the individuals on the audiotapes were ranked on a 7 point Likert scale measurement. A 1 represents the good quality, and a 7 represents a poor quality.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>SCALE: 1 representing positive aspects, 7 representing negative aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. good vs poor listener</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2. interesting vs boring</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>3. intelligent vs unintelligent</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>4. optimistic vs pessimistic</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>5. tolerant vs intolerant</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>6. affectionate vs unaffectionate</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>7. perceptive vs unperceptive</td>
<td>1 2 3 4 5 6 7</td>
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<td>8. flexible vs rigid</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>9. authentic vs inauthentic</td>
<td>1 2 3 4 5 6 7</td>
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<td>10. relaxed vs tense</td>
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<td>11. assured vs self-conscious</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>12. unmanipulative vs manipulative</td>
<td>1 2 3 4 5 6 7</td>
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<td>13. loud spoken vs soft spoken</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>14. clear voice vs unclear voice</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>15. normal pace vs fast pace</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>16. likeable vs unlikable</td>
<td>1 2 3 4 5 6 7</td>
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</table>
APPENDIX I
DATA FORMS

<table>
<thead>
<tr>
<th>Subject</th>
<th>Time to complete anagrams (seconds)</th>
<th>How many anagrams were completed</th>
<th>Time to complete questionnaire (seconds)</th>
<th>Time to complete counterbalance anagrams (seconds)</th>
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FIGURES
Orthogonal Theory of Biculturalism (Oetting & Beauvais, 1990)

Figure 1

EACI refers to European American Cultural Identification
AICI refers to American Indian Cultural Identification.
Figure 2

Cultural Identification Bar Graph

NPBI Subscales Bar Graph

EA/NA = 1 = European American, 2 = Native American

CULTID (Cultural Identification) 1 = Bicultural, 2 = Traditional, 3 = Marginal, 4 = AssimilatedResearcher

1=European Male; 2=Native American Female; 3=Native American Male; 4=European Female

EANA

1(Red)=Europeans; 2(Green)=Native American
Figure 3

Anagrams completed by Native American (NA) and European American (EA) Participants as a Function of Experimenter Ethnicity
Figure 4

Line Graphs of Time to Complete Anagrams by Native American (NA) and European American (EA) Participants as a Function of Experimenter Ethnicity
Figure 5

Line Graphs of CFTQ Scores Across Conditions as a Function of Experimenter and Participant Ethnicity
REFERENCES


Maiser, S. F., & Testa, T. J. (1975). Failure to learn to escape by rats previously exposed to inescapable shock is partly produced by associative interference. *Journal of Comparative and Physiological Psychology, 88*, 554-564.


