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ETHNIC IDENTITY AND SELF-ESTEEM IN NATIVE ADOLESCENTS

by

Andrew Peter Gotowiec

**A thesis submitted in conformity with the requirements
for the degree of Doctor of Philosophy
Institute of Medical Science
University of Toronto**

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ETHNIC IDENTITY AND SELF-ESTEEM IN NATIVE ADOLESCENTS

Doctor of Philosophy 1999

Andrew Peter Gotowiec

Institute of Medical Science, University of Toronto

ABSTRACT

This study's purpose was to examine connections between ethnic identity and self-esteem in Native adolescents. A three-factor model of ethnic identity included (a) Native identification, a subjective sense of commitment to Native culture, (b) Anglo identification, an analogous sense of belonging to the dominant culture, and (c) group-esteem, evaluative appraisals of one's heritage ethnic group. Self-esteem was operationalized with measures of global self-esteem, academic self-concept, and social self-concept.

Participants were 164 Native and 150 Anglo grades 10 and 11 students attending a high school in the US Southwest. Confirmatory Factor Analyses and mixed ANOVAs assessed the cross-cultural applicability of study measures. Hierarchical regression was used to evaluate four specific hypotheses.

Overall, Native youth had lower self-esteem than Anglo adolescents, but the difference depended on the facet of self-esteem. It was largest for academic self-concept. For global self-esteem the difference was close to statistical significance. No difference was apparent for social self-concept.

Hypothesis 1, that Native youths' level of Native identification would be positively associated with self-esteem, was not supported. The second hypothesis, that Native youths' level of Anglo identification would be positively associated with their

self-esteem, was supported by positive associations between Anglo identification and both academic and social self-concept. A third hypothesis that predicted a positive association between Native adolescents' group-esteem and self-esteem was supported by positive associations between group-esteem and each measure of self-esteem. The fourth hypothesis implied that association between group-esteem and self-esteem would grow stronger as Native identification increased, but results revealed that as Native identification increased, the association between group-esteem and self-esteem became weaker.

The results are discussed considering three theoretical frameworks that inspired the hypotheses (i.e., identity theory; symbolic interactionism; and, a Jamesian account of self-esteem). None of the frameworks accounted for the overall pattern of associations between the three-factors of the model and self-esteem. An alternative interpretation is presented, emphasizing the importance of minority group status as an influence on Native young peoples' self-esteem. The limitations of the study are explored, along with their implications for future theorizing and research in this area. Implications for prevention programs aimed at Native youth are discussed.

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CHAPTER 1

Introduction

Many Native¹ youth in Canada and the United States meet the challenges of development to become well-adapted, productive members of their communities (Armstrong, Kennedy & Oberle, 1990; Nagel, 1995; Neumann, Mason, Chase & Albaugh, 1991; Sack, Beiser, Clarke & Redshirt, 1987). At the same time, a large number of Native youth experience poor mental health and problematic psychosocial adaptation (Armstrong, 1993; Beals, Piasecki, Nelson, et al., 1997; Beiser & Atneave, 1982; Berlin, 1987a; Blum, Harmon, Harris, Bergeisen & Resnick, 1992; Fleming, Manson & Bergeisen, 1996; Gotowiec & Beiser, 1994; LaFromboise & Low, 1991; Yates, 1987). For example, compared with their non-Native peers, proportionately fewer Native youth complete formal schooling (Brady, 1996; Cummins, 1992; Dehyle, 1992; Fleming, Manson & Bergeisen, 1996), more Native youth abuse alcohol and other substances (Barsh, 1994; Bechtold, Manson & Shore, 1994; Oetting, Swaim, Edwards & Beauvais, 1989; Walker, Lambert, Walker, Kivlahan, Donovan & Howard, 1996), and more take their own lives (Bechtold, 1994; Kirmayer, 1994; Sinclair, 1998; Thompson & Walker, 1990). Many reports detail these problems. Fewer discuss possible protective factors. In either case, compelling empirical demonstrations of relationships between risk or protective factors and specific

¹ The term "Native" is used throughout this thesis to refer to indigenous peoples of Canada and the United States. Other terms used to refer to such peoples include, "Indian," "First Nations Peoples," or, "Native American." The single term is used to encompass many culturally diverse groups; I respect that diversity. No surplus meaning or connotation is intended by the use of the term "Native."

outcomes are scarce (Beiser & Manson, 1987; May, 1989; McInerney & Swisher, 1995; Schinke, Gilchrist, Schilling, et al., 1986; Van Hamme, 1996).

“Ethnic identity” has been discussed both as a protective factor and as a risk factor related to Native young peoples’ adaptation. The establishment of an identity is a primary task for all adolescents (Adams, 1992; Kroger, 1996; Marcia, 1980; Waterman, 1992). For ethnic minority youth, the formation of an “ethnic identity,” a sense of self concerning ethnic group membership, is a crucial aspect of identity formation (Aries & Moorehead, 1989; Maldonado, 1975; Phinney & Kohatsu, 1997; Rosenthal, 1987). Its importance derives from the supposition that a strong ethnic identity offers a foundation for optimal mental health, including a strong sense of self-esteem (Erikson, 1968; Hill, 1993; Phinney & Kohatsu, 1997; Simmons, 1987; Waterman, 1992). In this way, a strong ethnic identity is a protective factor associated with positive adjustment.

Ethnic identity is not only considered a protective factor. It is also discussed as a risk factor. Theorists and others concerned with Native adolescents believe that these youths’ unique circumstance makes their formation of an ethnic identity particularly difficult. Native and non-Native educators and mental health professionals posit that threats to Native youths’ ethnic identities, and resulting decrements in self-esteem, underlie these youths’ mental health and adaptive difficulties (e.g., Bechtold, 1994; Dawson, 1988; Dodd, Nelson & Hofland, 1994; Navarro, Wilson, Berger & Taylor, 1997).

The purpose of this project is to examine the supposed connections between ethnic identity and self-esteem among Native youth. In this first chapter, I describe the

hypothesized causal chain leading from ethnic identity to self-esteem and show that it has strongly influenced theorizing about Native adolescents' mental health and psychosocial difficulties. Several authors offer variants on the putative link between ethnic identity and self-esteem to explain high rates of school failure, substance abuse, and suicide among Native young people (e.g., Choney, Berryhill-Paapke & Robbins, 1995; Echohawk, 1997; Garrett, 1995; Kettl & Bixler, 1991; Navarro et al., 1997).

Discussions of ethnic identity and self-esteem among Natives are not limited to the academic sphere. Belief in an association between ethnic identity and self-esteem has affected how professionals think about, and work to overcome, Native young peoples' difficulties. In this chapter, I describe the way in which belief in a link between ethnic identity and self-esteem has influenced prevention programs designed to help Native youth and directed how the finite resources available to help this at-risk population are allocated.

Following a description of the hypothesized connections between ethnic identity and self-esteem and of the hypotheses' influence, I summarize the counter-arguments of those who question whether there is any empirical foundation to support beliefs about the importance of Native youths' ethnic identities.

Research in the field of ethnic identity has been hampered by researchers' and theorists' failures, both to clearly define the constructs involved and to specify theoretical models linking the constructs (Cross, 1991; Phinney, 1991; Rogler, Cortes & Malgady, 1991; Rosenthal, 1987; Verkuyten, 1994). In chapter 2, I attempt to redress that lack. A three-factor model that separates the issues of esteem for one's Native heritage,

identification with Native culture, and identification with the dominant culture is presented. The chapter discusses definitions of ethnic identity and self-esteem, with an emphasis on the implications of those definitions for measurement. The definitions and the model are then considered together to generate hypotheses about the relationship between Native youths' ethnic identities and their self-esteem.

In chapter 3, I review the small body of empirical studies relevant to a supposed connection between ethnic identity and self-esteem in Native youth. Although the evidence, both direct and indirect, is consistent with the hypothesized link, most of it is merely suggestive. Chapter 4 describes the study setting and methods. The chapter includes a description of the study measures and procedures. Results are presented in three sections making up chapter 5. Finally, in chapter 6, I discuss the results of this study and their implications, both for our understanding of Native youths' difficulties and for future study in this area.

A Hypothesized Link Between Ethnic Identity and Self-Esteem in Native Youth

Many mental health and psychosocial difficulties that affect Native youth emerge during adolescence (Berlin, 1987a; Blum et al., 1992; Fleming et al., 1996; May, 1988). For example, Beiser and Atneave (1982) compared rates of outpatient psychiatric treatment for Native and non-Native youngsters and found that, although rates of outpatient treatment were equal for Native and non-Native children younger than 10, the picture changed markedly during the adolescent years. After age 11, prevalence rates for Natives accelerated well beyond those of their non-Native peers. Comparative rates for contacts with the mental health system rose from about 1:1 before adolescence to

between 3.5:1 and 5.4:1 by age 19. Considering the steep rise in prevalence of difficulties during the adolescent period, searching for risk and protective factors that come to prominence during the same period would be logical.

Identity development is a primary task for all adolescents (Adams, 1992; Kroger, 1996; Marcia, 1980; Waterman, 1992). Forming an identity entails finding a fit between one's history, propensities, or skills, and the roles available in the social world. Identity development is a psychosocial task that involves finding one's unique fit in society (Erikson, 1950, 1968; Marcia, 1980). A well-developed identity is a crucial prerequisite for optimal psychological health, with a realistic sense of self-esteem being one component of positive mental health (Erikson, 1950, 1968; Kroger, 1996; Waterman, 1992).

With a sense of roles that are important to self, a sense that comes with a strong identity, people can evaluate their role performance. For example, if I developed an occupational identity as an artist, I may be concerned with developing my drawing ability, but if I developed an occupational identity as a fire fighter, my drawing ability would likely be irrelevant to my evaluation of my occupational role performance. As an artist, improvements in my drawing ability would both follow from, and buttress, my occupational identity. In this way, a well-developed identity directs my attention to aspects of myself most relevant to my self-conception. Evaluation of important aspects of myself influences my self-esteem. Thus, a well-developed identity becomes part of the foundation of a realistic sense of self-esteem. Self-esteem is a desirable outcome in itself. It is also a moderator of other outcomes; strong self-esteem is associated with

positive outcomes such as good school performance and compromised self-esteem poses a risk factor for a variety of poor outcomes, including depression (Blascovich & Tomaka, 1991; Marsh, 1993; Overholser, Adams, Lehnert & Brinkman, 1995; Rosenberg, 1979; Schweitzer, Seth-Smith & Calan, 1992).

Most identity theorists focus on domains such as sex role development, ideological or religious orientation, and occupational goals (Adams, 1992; Jones, Akers & White, 1994; Kroger, 1996). These are issues that most youth in the industrialized west must deal with. Compared with their dominant culture counterparts, ethnic minority youth face additional challenges in forming an identity (Frable, 1997; Phinney & Kohatsu, 1997; Rosenthal, 1987). An ethnic identity, a sense of self as a member of an ethnic group, is considered crucial to the mental health of ethnic minority youth (Phinney & Kohatsu, 1997; Rosenthal, 1987).

The difficulties that ethnic minority youth face in forming an ethnic identity are of two sorts. First, stereotyping and prejudice can affect ethnic identity development. Members of many ethnic minority groups are subject to bias and discrimination (Esses & Gardner, 1996; Kalin & Berry, 1996; Ogbu, 1983). Coping with stereotyping and disparagement of one's heritage can make ethnic identity formation difficult, especially as a basis for positive self-esteem. Second, all ethnic minority youth must cope with differing, and sometimes conflicting, cultural standards, those of their heritage and those of the dominant culture surrounding them. When the social roles and standards of appropriate conduct drawn from their heritage culture conflict with those drawn from the dominant culture, young people may find it difficult to develop a coherent sense of self

regarding their ethnic heritage. Resolving such conflicts is a prerequisite for ethnic minority adolescents' identity development.

Factors that challenge ethnic identity development are prominent in the lives of Native youth. All Native peoples share a history of oppressive relationships with the dominant culture (Berlin, 1987a; LaFromboise & Low, 1991; Norton & Manson, 1996). Native peoples have been subjected to loss of ancestral lands, restrictions on traditional life ways, imposition of dominant culture schooling, and loss of languages and traditional religions (Barsh, 1994; Norton & Manson, 1996). The dominant majority has threatened and devalued Native cultures; Native people face daily stereotyping and discrimination (Bechtold, Manson & Shore, 1994; Choney et al., 1995; Chrisjohn, Towson & Peters, 1988; Dodd et al., 1994; Echohawk, 1997; Norton & Manson, 1996). As well, Native youth in Canada and in the United States face the contrasting cultural standards of their heritage and of the dominant majority. Although there is great diversity among Native cultures (Beiser, 1984; Brant, 1990; Fleming et al., 1996; Gotowiec & Beiser, 1994; LaFromboise & Low, 1991; Young, 1994), some commonly-held values and standards of behaviour set Native cultures apart from the dominant majority (e.g., emotional restraint, non-interference; Brant, 1990; Dodd et al., 1994; Garrett, 1995; Harjo, 1993).

Self-esteem deficits assumed to result from these challenges presage a variety of poor outcomes, including educational failure, substance-use and even depression and suicide.

Educational Underachievement. The notion of cultural conflicts as a factor in Native students' relative underachievement was first introduced in the field of education. A broadly-based investigation entitled, "The Problem of Indian Administration" was

issued in the United States in 1928 (Brookings Institute, 1971). The report included a chapter on education in which the authors suggested that introducing Native-specific material into the classroom would help to improve the self-image of Native students.

Eventually, theorizing about the relationship between cultural content and self-esteem evolved into the “cultural discontinuity hypothesis” (Chrisjohn et al., 1988; Garrett, 1995; Sanders, 1987). As originally conceptualized, cultural discontinuity referred to behavioural factors such as language use and learning style. Differences, or “discontinuities,” between behavioural repertoires Native children learned at home and those required at school were thought to underlie Native children’s inability to cope with dominant culture schools. School failure was the result (Arce, 1981; Castellano, 1972; Cummins, 1992).

Later, the theoretical focus shifted from behavioural discontinuities to threatened personal identity. Self-esteem deficits resulting from threats to their ethnic identities were believed to leave Native youth unable or unwilling to meet the challenges of learning in the dominant culture classroom (Dawson, 1988; Herring, 1994; Luftig, 1983; Saslow & Harrover, 1968). For example, Sanders (1987) asserted that, “low self-esteem, directly related to group identity, is the major cause of the low achievement records of American Indian students.” (p. 82). Other authors, including educators and researchers, both Native and non-Native, have expressed similar sentiments (e.g., Castellano, 1972; Cummins, 1992; Dawson, 1988; Herring, 1994; Luftig, 1983; Saslow & Harrover, 1968).

Substance-Use/Abuse. The notion that threats to ethnic identity manifest as difficulties in adjustment has found its way into other areas. Perhaps inspired by the

literature on Native education, researchers and mental health professionals have invoked threatened ethnic identity as a risk factor for substance abuse (Brod, 1975; Cummins, 1992; Jilek-Aall, 1974; Kasee, 1995):

“Many Indian youth have experienced discrimination, particularly in towns bordering their Indian lands; others display uncertainty regarding questions such as ‘What is an Indian?’ and ‘How does an Indian behave?’ Indian youth often respond to these developmental issues by participating in substance use.” (Edwards & Egbert-Edwards, 1990, p. 288)

The link to self-esteem appears in such discussions: “In addition to alcohol and drug use, other presumed outcomes of low self-esteem among Native American youth are high rates of depression, suicide and interpersonal violence” (Navarro et al., 1997, p. 4).

Suicide. Overall, suicide rates among Native adolescents in Canada and the United States are higher than among any other ethnic group in either country (Gartrell, Jarvis & Derksen, 1993; Grossman, Milligan & Deyo, 1991; Kirmayer, 1994; Sinclair, 1998). Specific suicide rates among Native youth vary from place to place (Berlin, 1987b; Dizmang, Watson, May & Bopp, 1974; Kirmayer, 1994; May & Dizmang, 1974), but across reports, one proffered explanation is common. Researchers and mental health professionals cite cultural conflicts as a causal factor in the high rates of self-destructive behaviour (Armstrong, 1993; Berlin, 1987b; Echohawk, 1997; Grossman et al., 1991; Katt, Kinch, Boone & Minore, 1998; Kettl & Bixler, 1991; Manson, Beals, Dick & Duclos, 1989; May & Dizmang, 1974; Thompson & Walker, 1990).

In two comprehensive reports, reviewers specifically mentioned the linked issues of identity and self-esteem as important factors in Native suicide, particularly among

youth. Listing problems to be addressed in intervention programs, May (1990, p. 202) referred to, "General enhancement of self-esteem -- Hand-in-hand with (general socioeconomic improvement) are efforts to continue to revitalize the group and individual perceptions of tribal cultures . . ." Kirmayer (1994, p. 31) suggested a tragic logic to Native youth suicide, linking traditional cultures and self-esteem: "In the face of the systematic negation and destruction of Native traditions and self-esteem, suicide may be viewed both as an escape from an intolerable situation and as an act of defiance."

Influence on Resource Allocation. Belief in a causal chain leading from ethnic identity to self-esteem is not limited to academic discussions. Native youth themselves subscribe to the importance of ethnic identity. Bechtold et al. (1994) reported on a Native youth conference in the US. Delegates represented 53 tribes from 21 states. "Preserving traditional tribal culture" and "motivation and self-esteem" were ranked in the top seven concerns of these youth. Another survey, reported in 1983 (Development Associates, as cited in Bechtold et al., 1994), showed that the most common personal concerns prompting Native students to seek counselling services listed, "cultural identity problems," eighth in order of importance. It is not clear whether these concerns of Native youths reflect veridical issues, or merely their assumption of notions prevalent in the Zeitgeist.

Besides the impact on Native young peoples' perceptions, the central importance of ethnic identity has influenced the form and content of prevention programs. Surveys of programs aimed at Native youth show that most incorporate some "cultural component" designed to foster and strengthen Native youths' sense of, and pride in, their

Native heritage (Manson et al., 1989; Trimble, 1987). In this way, the hypothesized link between ethnic identity and self-esteem directs the allocation of the finite resources available to help this at-risk population.

These observations, about Native adolescents' opinions and about the current goals of prevention programs, make it clear that hypotheses associating ethnic identity and self-esteem have an impact well beyond the realm of academic theory. This influence makes it imperative to evaluate the hypothesized link. If empirical studies support a connection between the two constructs, perhaps more resources should be directed toward buttressing Native youths' ethnic identities. On the other hand, if such support is not found, scarce resources could be more effectively directed. Researchers, however, have undertaken very few such investigations.

Alternative Perspectives

Not everyone accepts the notion that threats to Native cultures manifest as problems for individual Native youth. In 1971, Levy and Kunitz challenged explanations of social pathologies among Native groups (e.g., alcoholism or high suicide and homicide rates) as the negative effects of social disintegration resulting from contact with the dominant culture. They pointed out that there had been no empirical demonstration of a causal link between contact with Whites and social pathologies among Natives. Nevertheless, they observed, the supposed causal link had become, "an unassailable if undemonstrable tenet of belief" (Levy & Kunitz, 1971, p. 100).

Levy and Kunitz (1971) were careful to point out that efforts should be made to alleviate social pathologies in Native communities, whatever their source. They also

observed that untested explanations implied possible misdirection and even waste of resources. Native cultures were, and are, under stress. Social pathologies exist in many Native communities. Causal links between the two, however, need to be empirically tested, not simply taken on faith.

Others have made more pointed cases regarding the hypothesized links between ethnic identity and self-esteem among Native adolescents. Ledlow (1992) focussed her criticism on the education literature. Very little empirical research, she argued, has addressed the cause of Native student dropout, despite hundreds of reports and discussions of the issue. Thus, interventions that have been put in place were not based on empirical evidence:

“In spite of this dearth of knowledge about the causes for so many Indian students’ decisions to leave school, many of the reports commonly cite the need for making the school curriculum more ‘culturally relevant’ or adding some type of Indian studies component to the regular curriculum in order to solve the problem. Cultural relevance is rarely defined and almost always assumed to be significant. With no evidence to support the claim and no definition of what a culturally relevant curriculum is, many of the school district and special problem reports recommend that a culturally relevant curriculum will ameliorate Indian students’ difficulties in school. How and why a relevant curriculum will solve the problem is rarely addressed; one assumes that the proponents of such solutions believe them to be based on some body of empirical knowledge . . .”
(Ledlow, 1992, p. 22-23).

Similar criticisms are levelled in other areas. For example, both EchoHawk (1997) and Thompson and Walker (1990) mentioned the possible role of cultural identity

conflicts in Native youth suicide. They also pointed out that little research has addressed the causal mechanisms involved in the high rates of self-destructive behaviour among Native young people.

Non-Native Ethnic Minority Youth

Other non-Native ethnic minority youth face challenges to their ethnic identities. As with Native youth, theorists believe those challenges to be related to self-esteem (Maldonado, 1975; Nesdale, Rooney & Smith, 1997; Phinney & Kohatsu, 1997; Porter & Washington, 1993; Rosenthal, 1987; Verkuyten, 1994). Therefore, one might turn to the literature focused on non-Native ethnic minority youth for clues as to the nature or strength of the putative link between ethnic identity and self-esteem. At least, one might look to that literature for theoretical frameworks or research paradigms. Researchers have conducted more empirical studies with non-Native ethnic minority youth than have been undertaken with Native youth. A connection between ethnic identity and self-esteem, however, is no better established among non-Native ethnic minority youth than among their Native peers.

Reviews of the literature on the association between non-Native ethnic minority adolescents' ethnic identities and self-esteem have produced uneven conclusions (Bat-Chava & Steen, 1995; Cross, 1991; Phinney, 1991; Porter & Washington, 1993). Cross (1991) reviewed 71 studies of Black identity and self-esteem. He concluded that since there was no compelling evidence to show a relationship between the two constructs, they must not be related. Phinney (1991) and Porter and Washington (1993) agreed with Cross that the evidence for a relationship between ethnic identity and

self-esteem is not strong, but they reached different conclusions. They observed that most investigators neither define the relevant constructs nor provide overarching theoretical models to guide their research. Therefore, definitive studies of the relationship between ethnic identity and self-esteem simply do not exist. It is not that there is evidence to refute a connection between the two constructs. There is just not adequate evidence to test the hypothesized association (Bat-Chava & Steen, 1995; Cross, 1991; Phinney, 1990, 1991; Porter & Washington, 1993; Rogler et al., 1991).

To summarize, empirical studies of ethnic identity and self-esteem among non-Native ethnic minority youth provide no clear evidence to test a connection between the constructs. Neither do the studies offer any clear guide to theoretical frameworks, definitions, or research paradigms to investigate the supposed link.

The Present Project

The purpose of the present project is to examine possible relationships between Native youths' ethnic identities and their self-esteem. The next two chapters provide a background for the study. Chapter 2 describes the study's theoretical framework. Chapter 3 presents a review of research concerning a relationship between ethnic identity and self-esteem among Native youth. Chapter 3 concludes with a statement of the study hypotheses.

CHAPTER 2

Theory, Definitions, and Hypotheses

A Three-Factor Model

In the previous chapter, I suggested that the Native-specific literature and the broader literature on other ethnic minority youth, has presented much discussion of ideas related to ethnic identity. Neither literature, however, has provided matching theoretical developments (Cross, 1991; Phinney, 1991; Rogler et al., 1991; Rosenthal, 1987; Verkuyten, 1994). Although there is wide agreement that the ethnic identities of ethnic minority youth are crucial to their psychological functioning (Maldonado, 1975; Phinney, 1991; Phinney & Kohatsu, 1997; Rosenthal, 1987), no comprehensive paradigm exists to guide research in this field. The theoretical lacuna extends to the question of definition. Typically, research reports on the psychological manifestations of ethnicity fail to provide definitions of the central constructs (Phinney, 1990; Rotheram & Phinney, 1987; Singh, 1997).

Despite the lack of an explicit theoretical framework, the literature suggests at least implicit agreement about the broad factors important for understanding ethnic identity. Boykin and Toms (1985) made the factors explicit in their description of the “triple quandary” facing Black youths in America. The triple quandary is that ethnic and racial minority youth are socialized into a minority status, into the culture of their heritage ethnicity, and into the culture of the majority group. Figure 1a illustrates these three factors along with links between each factor and self-esteem. For Native youth, minority status makes “group-esteem” an important issue. Socialization into the culture

of the heritage ethnicity is represented by “Native Identification,” and socialization into the majority culture yields “Anglo Identification.”

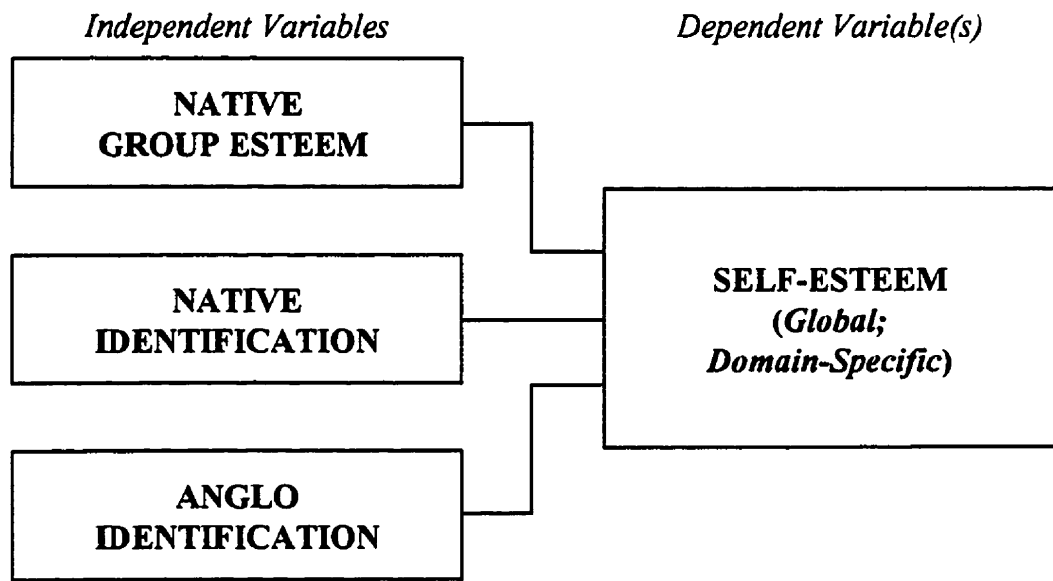
In three parts of this chapter, I describe the factors represented by the boxes on the left of Figure 1a. Typically, all are discussed under the broad rubric of ethnic identity. To help tease apart the three factors, I begin the first part of the chapter with a definition of ethnic identity. That discussion serves as a guide to what ethnic identity is and is not, at least for the purposes of this project. Emphasis is placed on the definition’s implications for measuring the construct. Definition of ethnic identity leads to a discussion of the paired, but separate, factors of Native and Anglo identification.

The second part of the chapter begins with discussion of the concept, “minority status.” It is a concept often confused with ethnicity. By keeping the two concepts separate, however, one begins to understand the uppermost box in Figure 1a, “group esteem.”

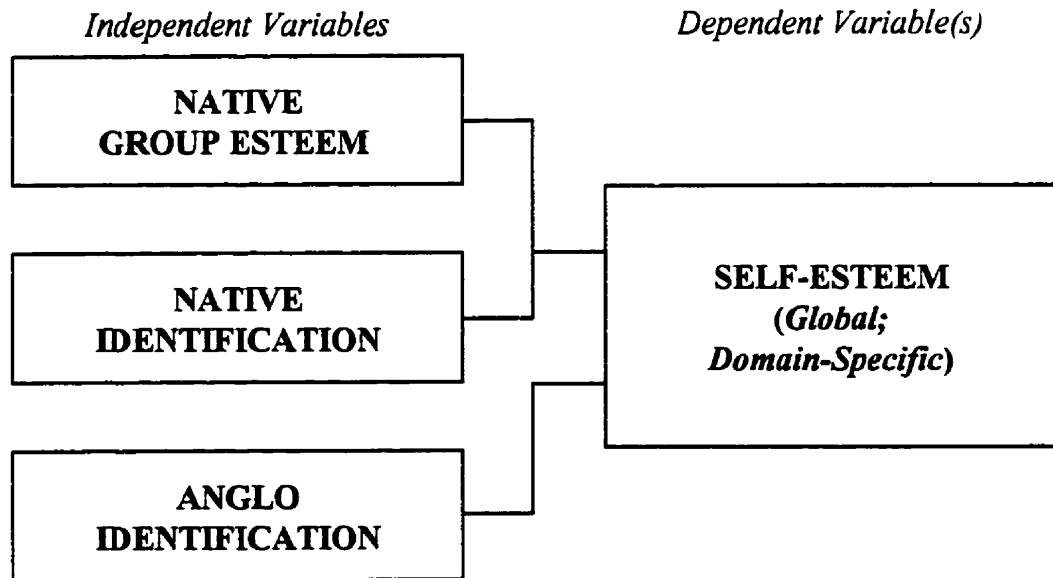
Finally, a discussion of the Figure’s endpoint, “self-esteem,” is presented. The theorized origins of self-esteem are also discussed. Along with the discussion of identity theory presented in the first part of the chapter, theories about the origin of self-esteem are used to generate specific hypotheses about relationships among the three factors in the model and individuals’ self-esteem. Those hypotheses incorporate a modification of Figure 1a, illustrated in Figure 1b.

Figure 1: A Three-Factor Model of Ethnic Identity

1a: A Main-Effects Model



1b: An Interaction & Main Effect Model



Defining Ethnic Identity

The phrase, “ethnic identity,” has been used in a variety of ways. It has often been used to denote the ethnic category to which a person belongs. People can place others, and place themselves, into ethnic categories. For example, people may identify their ethnicity by checking one or more categories on a census. Researchers may treat such responses as indicating individuals’ categorical ethnic identities (Aspinall, 1997; Harris, Consorte, Lang & Byrne, 1993; Lieberman & Waters, 1993). When researchers discuss rates of school leaving among Native young people as compared with non-Native youth, they are comparing individuals whose categorical ethnic identity is “Native American” with those whose categorical ethnic identity is something else.

In discussions of threats to Native youth’s ethnic identities, one invokes a notion different from categorical ethnic identity. Individuals who identify themselves as belonging to the ethnic category “Native American” may vary in the strength of their Native American identity. They may vary in the importance they accord that category membership. Only individuals themselves can formulate this sort of self-construal, this sort of “ethnic identity.” In this latter sense, “ethnic identity” refers to a person’s self-construal as to ethnic group membership. For this project, “ethnic identity” is this self-construal, a psychological manifestation of ethnicity.

To guide the operationalization of ethnic identity, one requires a more precise definition of such self-construal: what is “identity” and what is an “ethnic group” with which a person might identify? The author of a landmark review of the psychological literature on ethnic identity, however, reported that about two thirds of studies provided

no explicit definition of the construct (Phinney, 1990, p. 498). The situation is not specific to psychology. Whatever their disciplinary origin, most reports fail to provide any definition of ethnicity or ethnic identity (e.g., Cohen, 1978). Isajiw (1974) reported that of 65 empirical reports from sociology and anthropology, only 13 defined the construct.

Since explicit definitions of “ethnic identity” are few, operational definitions of the construct are often connotative, defining ethnic identity by what it is related to, rather than denotative, limiting operationalization to dimensions central to the construct. Without clear, agreed-upon, denotative definitions, connotative operational definitions have proliferated. For example, as preparation for a meta-analytic review of the literature on ethnic identity and self-esteem, Bat-Chava and Steen (1995) found 62 empirical studies. They limited their search to reports in which researchers directly measured both ethnic identity and self-esteem; none of the studies identified included Native American subjects.

Examining nearly 900 items from 30 different measures, they identified 11 different dimensions required to describe the variety of operational definitions: (a) self-identification as a member of an ethnic category; (b) evaluation of the group (positive or negative); (c) group preference/pride; (d) sense of belonging; (e) importance of identity to the self; (f) knowledge of, or adherence to, traditional ethnic values, beliefs or norms; (g) interest in, or a personal search for, information about the group; (h) sense of clarity about one’s ethnicity; (i) involvement in ethnic/cultural behaviours; (j) political ideology; and, (k) other-group orientation.

All the operational definitions might be related to ethnic identity, but not all seem central parts of the construct. For example, could one not strongly identify with a group without necessarily sharing a political ideology characteristic of it (i.e., dimension j)? Lack of definitional clarity makes it difficult to compare results between studies and to reach definitive conclusions about the relationship between ethnic identity and self-esteem (Cross, 1991; Phinney, 1991; Porter & Washington, 1993; Rogler et al., 1991).

The profusion of connotative definitions in the psychological literature suggests that one should return to “first principles,” and search for definitions of the ethnic identity’s constituent terms. The study of “identity” occupies an important place in developmental psychology. “Ethnic identity” is a form of identity. Therefore, to understand the narrower manifestation, I first examine the broader construct of “identity.”

Identity. The notion of identity as a significant psychological construct came to prominence with the work of Erik Erikson (1950, 1968), beginning in the 1950s (Gleason, 1983). Erikson formulated a model of psychological development across the lifespan. Identity is the fifth of eight psychosocial stages a person must negotiate. Before the stage of identity crisis, young children determine their personal identities, answers to the question, “Who am I?,” by identifying with others. At adolescence, young people, with the psychological “progress” following the resolution of previous crises, develop a sense of independence that allows them to move beyond simply identifying

with others to forming an identity for themselves (i.e., moving from “identifying with” to “identifying as”).

Erikson saw previous psychological development as one of many factors contributing to young peoples’ independence. In adolescence, biological changes confer new abilities and drives that move the youth into the wider social world, beyond the family and school. In turn, the wider social world broadens the context for identity development. Identity forms a bridge between the individual and the social world.

Erikson’s summary of the concept is:

“The wholeness to be achieved at this stage I have called a *sense of inner identity*. The young person, in order to experience wholeness, must feel a progressive continuity between that which he has come to be during the long years of childhood and that which he promises to become in the anticipated future; between that which he conceives himself to be and that which he perceives others to see in him and to expect of him.” (Erikson, 1968, p. 87).

Identity formation is a process by which youths struggle to find a match between their self-concept (“that which he conceives himself to be”) and the expectations and possibilities they see in the surrounding world (“that which he perceives others to see in him and to expect of him”).

Erikson believed that successful resolution of the fifth psychosocial crisis yields a coherent self-identity. This, in turn, becomes a new basis for a realistic self-esteem (as contrasted with conceit or narcissism). On the other hand, a youth unable to synthesize the elements of self and society to form a coherent self-identity falls victim to role

confusion. Role confusion leaves a youth prone to low self-esteem. Identity achievement and role confusion, however, are not dichotomous possibilities, but ends of a continuum; young people can resolve the crisis of identity with varying levels of success.

Adolescence is the period during which the crisis of identity formation comes to the fore: “. . . we assume that not until adolescence does the individual develop the prerequisites in physiological growth, mental maturation, and social responsibility to experience and pass through the crisis of identity” (Erikson, 1968, p. 91). Before adolescence, an individual lacks the cognitive competencies, physiological attributes, and widened social context that together form the foundation, the prerequisites, of identity development.

Erikson was an influential theorist and an accomplished clinician, but he was not a researcher. His source of data was wide clinical experience and he outlined a broad theoretical model. It fell to others to investigate his predictions empirically. Marcia (1966, 1980, 1987) developed an operational definition of Eriksonian identity development. His paradigm generated a large body of empirical study focused not on ethnicity but on identity development in realms such as occupation, ideology, and sex-role orientation (Adams, 1992; Bourne, 1978a, 1978b; Hill, 1993; Kroger, 1996; Waterman, 1982). That work supports the validity of Erikson’s formulation on at least two counts. A strong, well-developed identity is associated with high self-esteem (Hill, 1993; Kroger, 1996). Identity also appears to develop across adolescence: younger

adolescents tend to have less well-developed identities than their older adolescent counterparts (Adams, Bennion & Huh, 1989; Grotevant & Adams, 1984).

Other formulations support at least some aspects of Erikson's model. Damon and Hart's (1982; Hart, Maloney & Damon, 1987) theoretical model accounts for development of the "self-concept" or self-understanding. Their model is based on a synthesis of controlled empirical studies and describes qualitative changes in the self-concept across development. In infancy, the beginning of the self-concept is the dawning awareness of the distinction between "me" and "not-me," self-other differentiation. Later, into early childhood, surface features of the self (e.g., hair colour) predominate in one's self-definition. In middle- to late-childhood, individuals begin to make comparisons with others and to incorporate such relative knowledge into the self-concept. In adolescence, the social realm is a key determinant of the self-concept. During adolescence, the influence of the social context extends beyond mere comparisons with others, to include the effect of self-characteristics on one's interactions with others.

From different theoretical vantage points, Erikson's and Damon and Hart's models lead to converging conclusions. For Erikson, adolescence is when individuals arrive at an independent self-definition called an "identity." The wider social world provides a context for the development of that self-definition. In that sense, the social world is a primary determinant of "identity." For Damon and Hart, the growth of cognitive skills during adolescence allows individuals better to consider their positions in the social world. Thus, the social self becomes primary in the adolescent self-concept.

In both frameworks, it is not until adolescence that young people have the cognitive capacities to fully appreciate themselves as independent agents in the social world.

Identity is a subjective (i.e., intra-psychically generated) construction of the self that comprises one's idea of how one fits into the social roles afforded by the wider world.

Ethnic Group. If identity is a subjective construction of oneself as fitting into available social roles, then ethnic identity must be a subjective construction of oneself as belonging to an ethnic group. This is precisely the sort of definition offered in the psychological studies that define the construct (e.g., Phinney & Alipuria, 1990). Such a definition, however, provides no instruction about how to measure a sense of belonging to an ethnic group. Consideration of what is meant by "ethnic group" would guide the formulation of questions to tap "ethnic identity."

Typically, when psychologists discuss ethnic groups, they are considering social groupings (i.e., groups of people identified by themselves and/or by others as belonging to a group) of persons who share a common ancestry and who display some distinctive cultural patterns (DeVos, 1995; Liebkind, 1989)². This sort of conceptualization contains both objective and subjective elements (Isajiw, 1990). Subjective (internal) elements are those emphasizing the role of individuals in defining their own ethnic group identity, objective features aside. Objective elements encompass features or attributes that one might count or document to establish the identity of an ethnic group. Objective features

² The precise meaning of the term, "ethnic group," has been the subject of a great deal of discussion, principally within the sociological literature (e.g., Barth, 1969a; DeVos, 1995; Glazer & Moynihan, 1975; Isajiw, 1974; Parsons, 1975; Yinger, 1985). The purpose of this discussion is not to delineate the boundaries of the concept itself, but rather to illustrate the meaning of ethnic group as it is relevant to an understanding of a psychological "ethnic identity."

include place of origin, being born to a member of the group (i.e., both subsumed under the notion of “common ancestry”) and participation in unique cultural practices and/or adherence to culturally determined standards of behaviour.

The common conceptualization of an ethnic group has three essential elements: heritage, or transmission of ethnic group membership; cultural practice; and identification by self and/or by others. This conceptualization suggests domains that one might tap to assess an individual’s ethnic identity. The following discussion will show that (a) subjective reports are key to tapping ethnic identity and, (b) no single element is a cardinal feature of ethnicity such that measuring it alone would definitively reveal individuals’ subjective ethnic identities.

The notion of “common ancestry” reflects the idea of heritage, or transmission of ethnic group membership. As I will discuss in a later section of this chapter, individuals are socialized into ethnic group membership. An easy way to be socialized into a group is to be immersed in its practices, its culture, by an accident of birth. Thus, heritage, or birth to a member of an ethnic group, is sometimes considered the *sine qua non* of ethnic group membership, and a significant determinant of an individual’s psychological identification with an ethnic group. This suggests that questions about an individual’s family and heritage may contribute to an assessment of ethnic identity.

However, questions about heritage alone would be inadequate. There are pathways to ethnic identity that do not involve socialization by one’s family of origin. Intermarriage offers a compelling counter example to ethnicity as birthright. Parsons (1975) discussed a project tracing the genealogy of an Italian group in which all the

members “vehemently and affirmatively claimed they were Italian” (p. 64). That claim aside, members born into the group had extensively intermarried with Irish and Polish Catholic persons. The spouses, the members by marriage, had become Italian, showing this through their styles of cooking and social interaction, through their cultural practice. It is, therefore, not birth *per se* that brings one into an ethnic group, that defines who is or who is not a member of an ethnic group. Exposure to the cultural practices of the group, through association with other members of the group, is a critical contribution to a subjective ethnic identity.

Culture and cultural practice are notions that elude precise definition (Betancourt & Lopez, 1993; Shweder & Sullivan, 1993), but traditions such as religious beliefs and practices, language, styles or types of cooking, and patterns or mores around sexual behaviour are among the practices and beliefs that may be included in the culture of an ethnic group (DeVos, 1995).

As Barth (1969b) discussed, the cultural practices of a group and of an individual may vary across time and space, without there being a fundamental shift in a group’s or an individual’s identity. Resettlement results in a homogenization of many aspects of culture; for example, circumstances pare the worldwide variety of housing styles to only a few types in Canada and the US (Parsons, 1975). Yet, despite such homogenizing forces, ethnic groups may retain their distinctive identities. Technological changes may occur by which certain cultural forms are dropped or added to an ethnic group’s repertoire, without a corresponding change in the definition of the group. Cultural practice may reflect adaptation to a specific ecological niche. The availability of certain

foodstuffs, for example, may significantly affect the traditional diet of members of an ethnic group as they move to another place. Yet, the now geographically separated parts of the group may continue to identify themselves as of a single ethnic group (e.g., Barth, 1969b). That is, ethnicity may remain constant, even when changes across time or space alter the cultural content of the ethnic group.

Cultural practice alone does not define an ethnic group, or reveal an individual's subjective ethnic identity. Two people who both perform some cultural practice characteristic of a group may not feel the same subjective identification with the group, and two people who do not share a certain practice may feel equally strong commitments to their ethnic identities.

For a group to be an ethnic group that status must be acknowledged by its members and/or by others. Barth (1969a) argued that the key defining element of an ethnic group is self-identification, and that the other elements support, or follow from, an individual's self-identification as a member of an ethnic group. This may be the case when self-identification is used in a broader sense of "identifying as," but not if one uses self-identification in the narrower sense of self-labeling or self-categorization. Self-labeling may not reveal the essence of a person's ethnic self-construal.

Researchers concerned with census responses, among others, have discussed the shifting nature of self-labels (Aspinall, 1997; Harris et al., 1993; Johnson, Jobe, O'Rourke, et al., 1997; Lieberman & Waters, 1993; Paisano, 1993; Phinney & Alipuria, 1996). Individuals of mixed ethnic or racial heritage are sometimes forced to choose one or the other as a self-label, despite feeling a "mixed" identity (Phinney & Alipuria,

1996). Sometimes, individuals self-label as belonging to an ethnic group to access privileges granted to members of the group, without necessarily “identifying” with that label (Phinney, 1996). Self-labeling may shift with the phrasing and context of the question designed to elicit it (Harris et al., 1993; Johnson, Jobe, O'Rourke, et al., 1997; Lieberman & Waters, 1993). For example, if a researcher asked my ethnic heritage, I would say “Polish and English,” the ethnicities of my parents, even though I feel no identification with those cultural groups. With another phrasing of the question, I would likely reply “Canadian,” reflecting an unambiguous identification with Canadian culture. In the former case, asking about my ethnicity in one way would both place me in groups with which I do not identify and fail to elicit the label for the group with which I do identify. Another query might yield a response of Polish-Canadian, this time a response that both does and does not reflect my subjective identification. Therefore, self-identification depends on context (i.e., my response changes depending on whether a researcher asks me about my ethnic heritage or my ethnicity) and does not necessarily reflect people’s subjective ethnic identifications, their sense of belonging to given ethnic groups.

Considering a definition of “ethnic group” makes it clear that there is no single “objective” element that is necessary or sufficient to mark a person’s subjective ethnic identity. There is no one-to-one correspondence between a subjective identity and either heritage, cultural practice, or even self-labeling. An implication is that a mere counting of objective features (e.g., “how often do you attend a Native cultural event?”; “Where were you born?”) would not be an adequate measure of subjective ethnic identity

(Trimble, 1990). For example, a person could frequently prepare and eat food characteristic of a given ethnic group (i.e., perform a behaviour characteristic of an ethnic group), without having a strong subjective identification with that group. At the same time, asking a person about the subjective importance of participating in activities that are characteristic of a given ethnic group might usefully illuminate the person's ethnic identity.

Race. "Race" is a construct that researchers often conflate with ethnicity (Singh, 1997). It is a difficult concept to define precisely; this impreciseness is a source of much criticism of the "scientific" use of the concept (Yee, Fairchild, Weizmann & Wyatt, 1993). In practice, race refers to socially constructed groupings of people. These groupings are ostensibly made based on physical features such as skin colour or hair textures (Marks, 1996).

Some use the term "ethnicity" to encompass groups defined only by race (e.g., McGuire, McGuire, Child & Fujioka, 1978; Phinney, 1989; Phinney, 1996). Montagu (1972) explicitly suggested such usage, recommending that the term "race" be discarded to be replaced by "ethnicity." His goal was to remove the implication of genetic differences as a basis for racial group distinctiveness.

Although theorists have dismissed "race" per se as a meaningful biological construct (Betancourt & Lopez, 1993; Beutler, Brown, Crothers, Booker & Seabrook, 1996; Marks, 1996), physical features used to construct racial categories are passed from generation to generation through biological heritage. Thus, conflation of race and ethnicity, rather than leading to a de-emphasis on biological heritage in the consideration

of race, may have led to an emphasis on heritage in the consideration of ethnicity. As previously argued, such an emphasis is misplaced; biological heritage may be the only way to join a racially-defined group, but it is not the only way to join an ethnic group. Confusing the terms “race” and “ethnicity” serves only to reduce conceptual clarity (Helms & Talleyrand, 1997).

Despite the distinction between ethnicity and race, the two concepts are not wholly unrelated. Like heritage and culture, phenotypic distinctiveness may form part of an ethnic group’s self-definition (DeVos, 1995; Yinger, 1985). Even when phenotypic characteristics form part of an ethnic group’s self-definition, however, race and ethnicity do not become synonymous. A single racial category may subsume several ethnic groups (e.g., Alba’s [1990; Alba & Chamlin, 1985] studies of ethnic groups among White Americans) and an ethnic group may include racially different individuals (e.g., by intermarriage). The concept of ethnicity and race overlap, but they are not identical. Like cultural practice, race may become a symbolic marker of ethnic distinctiveness, but does not itself define an ethnic group.

In this project, designations referring to race are sometimes used to label ethnic groups. This is done only when either (a) such references reflect locally appropriate usage (see chapter 5), or (b) other research employing such racial labels to refer to ethnic groups is being reported. Never is the use of racial labels to designate ethnic groups meant to imply that ethnic groups and racial groups are always identical. I explicitly criticize the use of race and ethnicity as identical concepts as part of a discussion of the “preference paradigm” in chapter 3.

Summarizing “Ethnic Group” and “Identity”

For the purposes of research on the psychological manifestations of ethnicity, ethnic identity is not simply a categorical variable (Phinney, 1996), but reflects an individual’s self construal as an ethnic group member. One’s “ethnic identity,” therefore, is itself a variable attribute. Two individuals who both identify themselves as belonging to the category, “Native American,” will likely differ in the importance they accord, or the commitment they feel, to that membership. Their “ethnic identities” will likely differ.

Ethnicity reflects a social identity. An ethnic group is a group recognized by its members and/or by others. Therefore, people’s ethnicity is only relevant in the social world and only relevant concerning individuals’ understanding of themselves in the social world. That is, to the extent individuals can understand themselves in the social world, they can understand themselves concerning ethnicity. Adolescence is the period when understanding of oneself in the social world emerges. It seems clear then, that “ethnic identity,” a self-definition rooted in one’s identification of self as an ethnic group member and reflected in one’s cultural practice and heritage, will become most influential in the self-concept during adolescence.

Since “identity” (as a psychological concept) is a subjective construction of one’s place in the social world, measures should emphasize subjective reports in determining an individual’s ethnic identity. That is, if subjectivity is key to people’s psychological understanding of their ethnicity, then the key to measurement of the psychological manifestation of ethnicity is subjective self-report. The definition of “ethnic group”

offered a guide to what domains should be tapped to measure an individual's ethnic identity. Objective features such as place of birth (i.e., a marker of heritage) may be correlated with, but not central to, a person's subjective ethnic identity. Instead, asking for subjective reports about a constellation of factors drawn from heritage, family cultural practice, individuals' own cultural practice, and the subjective importance of group membership may most effectively reveal individuals' ethnic identities.

Native and Anglo Ethnic Identification

Two factors in the three-factor model illustrated by Figure 1a are varieties of ethnic identification. The factors are Native identification and Anglo, or dominant culture, identification. The model suggests that these are two separate issues. In this section, I explore this implication of the three-factor model.

The previous discussion of "ethnicity" suggested that socialization is a route to developing an "identity." Socialization is a process for preparing children for adult roles through the teaching and learning of beliefs, values, and behaviours. Parents and families are the primary socializing agents in a young person's life, but they do not act in isolation. Schools and the mass media are also significant socializing agents in the young person's world. Especially by adolescence, the peer group also becomes a significant influence in the young person's life (Hill, 1993). When these agents are culturally consistent, as they are for members of the dominant culture, a young person copes with being socialized into the norms, values, and identity of only one group. For ethnic minority youth, for Native youth, the various socializing agents are not as likely to be consistent. Native youth cope with being socialized by the agents of their heritage

ethnicity, primarily the family, and, perhaps, the home community (including like-ethnic peers), but other socializing agents also influence them, socializing agents mainly reflecting the dominant culture.

Boykin and Toms (1985) refer to these dual socializing influences when they assert that ethnic minority youth are socialized into their heritage ethnicity and, separately, into the surrounding dominant culture. When important socializing influences are born of two cultures, the standards and roles espoused may conflict. It is the contrasts and conflicts between these socializing influences that may challenge an ethnic minority youth's ethnic identity development. In the face of such cultural contrasts, the same behaviours, the same roles may lead to both "right" and "wrong" behaviours, depending on which contrasting alternative provides the standard of evaluation.

Native youth face such conflicts in their lives. Several reports document the significant differences between the socializing effects and goals of Native and non-Native cultures in the United States and Canada (Brant, 1990; Chrisjohn et al., 1988; Luftig, 1983; Wilson, 1992). Erikson specifically mentioned the situation of Native youth:

"No wonder that Indian children, forced to live by both these plans, often seem blocked in their expectations and paralyzed in their ambitions. For the growing child must derive a vitalizing sense of reality from the awareness that his individual way of mastering experience, his ego synthesis, is a successful variant of a group identity and is in accord with its space-time and life plan." (Erikson, 1968, p. 49).

Theorists, such as Erikson, believe the outcome of such conflicts is lowered self-esteem. Compared with youth of the dominant culture, Native youth cannot as easily be sure that their “way of mastering experience” is a successful variant of group identity; that is, given the contrasting standards of their heritage and the dominant culture, Native youth cannot as easily be sure about what is the relevant group identity.

Theorizing about these sorts of conflicts has a long history, most often regarding human migrations (e.g., immigration). In 1928, the sociologist Robert Park published his treatment of “The Marginal Man,” the individual caught between two cultures. Park had it that leaving one culture to join another left an individual without reference points and created a lifetime of stressful circumstance. Park’s student, Stonequist (1935), echoed the view that the path from the old culture to the new was challenging. For both, an implicit path leads away from one’s heritage, toward the new host culture. Unlike Park, however, Stonequist suggested the additional possibility of not being marginalized, but coming to a broader horizon, encompassing the reference points of both one’s heritage and of one’s new home. Therefore, the inconsistencies between the dual socializing agents of the ethnic minority heritage and the dominant culture could create either risk or opportunity.

Little Soldier (1985) reflects the influences of both Park and Stonequist in a model to account for the experience of Native youth. He describes a single bipolar continuum of identification from Native identity to non-Native identity (Figure 2). On one end, the continuum is anchored by a monocultural, traditional orientation, an identification with the Native world. The process by which individuals learn their home

culture, which places them at this first end of the continuum is “enculturation.” At the other end of the continuum is another monocultural orientation by which the assimilated individual identifies completely with the non-Native world. Placement at this second pole follows “acculturation,” the process of acquiring behaviours of another cultural group, to gain access and to function within that group and thus, in this case, to develop a dominant culture identity (Little Soldier, 1985, p. 185). For Little Soldier, schooling is the quintessential dominant culture socializing experience. By this model, Native youth are encultured by their family and home community and acculturated by formal schooling.

Between the poles of Little Soldier’s continuum are two areas. Moving from the traditional pole, individuals might encounter a “danger zone” where they lose touch with their Native roots and do not yet feel comfortable in the non-Native world. A resulting normlessness leaves young people without guides to appropriate behaviours or reasonable standards for the development of self-esteem. However, if individuals successfully negotiate or skip this danger zone, they might become bicultural, encultured into traditional Native ways but also having acquired a competent orientation to, and identification with, the dominant culture. This midway orientation is the ideal in that it gives individuals the greatest range of choices.

Although his model identifies various intuitively sensible possible outcomes, Little Soldier’s continuum idea does not bear up under scrutiny. It is difficult to see how both biculturalism and the “danger zone” lie along one continuum. Little Soldier describes enculturation and acculturation as two separate processes. Both processes

describe gaining a cultural identification; neither describes losing anything. One spot on the continuum, the “danger zone,” represents the failure of both processes. The next step describes the success of both, “biculturalism.” In other words, traveling along the continuum, one first loses one’s traditional identification in the danger zone and next somehow gets it back, to become bicultural.

The interpretative difficulties inherent in Little Soldier’s model suggest that a single continuum may be inadequate to define the set of outcomes possible at the interface of the heritage and dominant culture (e.g., the “danger zone” and biculturalism). Berry (1990, 1997) formulated a model that incorporated outcomes analogous to Little Soldier’s four, but, instead of a continuum, Berry used a matrix defined by two separate issues (Figure 3). The first issue in Berry’s model is a choice about Little Soldier’s traditional orientation: does one intend to remain oriented toward the culture of one’s heritage, “in terms of identity, language, way of life” (Berry, 1990, p. 216)? For a simplified model, Berry presents this question as having a dichotomous outcome, “yes” or “no.” The second question is whether one wants to have ongoing interactions with the dominant cultural group.

Where Little Soldier describes a bipolar model, Berry describes a bidimensional model. Interactions with one’s heritage culture form one dimension and interactions with the dominant culture form a second dimension. Two possible responses to two questions (one for each dimension) describe a fourfold taxonomy. A person rejecting interactions with the dominant group and maintaining a traditional orientation identifies a “separation” attitude, while the same traditionally-oriented person accepting interaction

with the dominant group defines an “integration” attitude. A person in Little Soldier’s danger zone, one who turns away from a traditional orientation and fails to engage with the dominant culture, is “marginalized.” A person who rejects a traditional orientation but succeeds in interactions with the dominant culture characterizes the “assimilation” status.

Berry’s model has been very influential and it has generated illuminating empirical work. He measures ethnic minority individuals’ attitudes about whether they should maintain heritage cultural practices and whether they should have ongoing interactions with the dominant culture. He finds that a weak traditional orientation is associated with greater self-perceived stress, but only when accompanied by a weak orientation to the dominant culture, as in Little Soldier’s danger zone (Berry, Kim, Poser, Young & Bujaki, 1989). In keeping with Little Soldier’s conceptualization, individuals manifesting integration (or, biculturalism) attitudes experience the least stress (Berry, et al., 1989).

Berry, however, does not measure identification with either the minority or majority group. In his presentations of the model, he mentions identity issues, the focus of Little Soldier’s presentation, but only concerning the ethnic group of origin. Berry focuses on whether or not ethnic minority individuals choose to interact with majority group members, not the possibility that they might develop identities based on socialization into the majority group culture (Schonpflug, 1997). To illustrate this weakness, one can imagine a boy of Polish descent, raised in Canada, understanding himself to be unambiguously “Canadian.” Berry’s model, however, apprehends this

individual not as having a Canadian identity, but as having a Polish identity and interacting fully with Canadian culture (i.e., being Polish and fully assimilated).

Berry's model and his empirical studies do not provide a direct examination of issues related to ethnic identity. His model and his results, however, do lend credence to a conceptualization by which socialization into the heritage ethnicity and socialization into the dominant culture are two separate issues. Berry's model also offers a useful heuristic for the evaluation of measurement approaches taken to tap ethnic identity. Approaches that measure identification using a single bipolar continuum like Little Soldier's are inadequate. Measures that fail to tap both of the factors separated in Berry's model and in Boykin and Toms's (1985) formulation leave unmeasured at least one factor deemed significant in the life of Native youth.

There are some empirical results to support the notion that heritage and dominant culture ethnic identities are separate issues. A small number of studies with non-Native ethnic minority youth have employed a bidimensional model to measure ethnic identity directly. Hutnik (1986) used two questions, one evaluating a British ethnic identification and one a South Asian ethnic identification, to show that South Asian youth in Britain show all possible modes of combining those two identifications (i.e., strongly South Asian identified and weakly British identified; strongly South Asian and strongly British; weakly South Asian and strongly British; weakly identified with either). Zak (1973) used a factor analytic approach to assess the independence of Jewish and American identifications among Jewish youth in the US; later he used the same strategy to assess Arab and Israeli ethnic identifications of Arab youth living in Israel (Zak, 1976). In both

cases, he found minority and majority group identifications to represent discrete, uncorrelated factors.

Sanchez and Fernandez (1993) used two scales, one addressing American identification and one addressing Hispanic identification, to predict self-perceived stress in a group of Hispanic youth in the United States. They did not factor analyze responses, but they did report a lack of significant correlation between the two scales, with a sample size ($n = 164$) adequate to detect moderate to small correlations (Cohen, 1992).

Sanchez and Fernandez (1993) interpreted this null result as attesting to the scales' independence. Although their work supports the bidimensional model, their results do not offer such strong support for the biculturalism hypothesis. They found that, irrespective of level of Hispanic identification, only American identification predicted (negatively) self-perceived stress among Hispanic youth. In other words, Hispanic identification scores were not significant predictors of self-perceived stress, but American identification scores were. I could find no other results to replicate or refute Sanchez and Fernandez's (1993) findings.

Figure 2: Acculturation Continuum

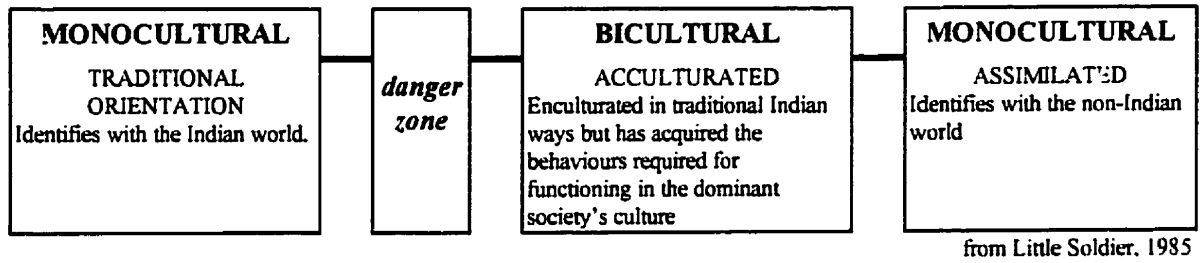
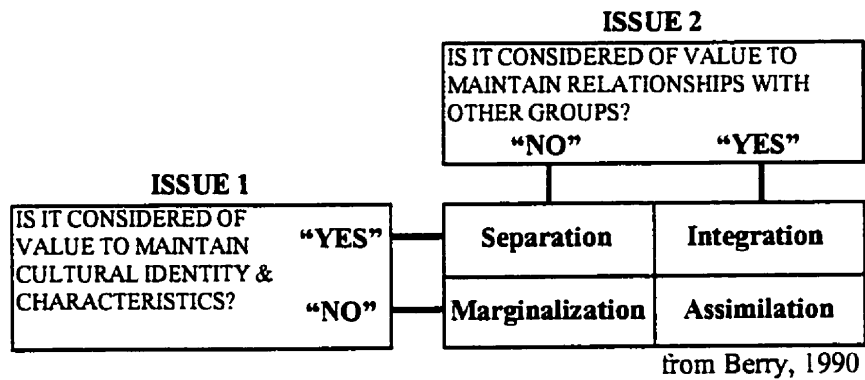


Figure 3: Acculturation Matrix



Socialization into a Minority Status

Boykin and Toms (1985) described another factor in the lives of ethnic minority youth, socialization into an ethnic minority status. In this section, I describe the meaning and some connotations of minority status. Included among those connotations is the notion of “group-esteem,” the topmost factor in the three-factor model presented in Figure 1. “Group-esteem” reflects individuals’ evaluations of the ethnic group of which they are members.

Minority status is frequently linked with ethnicity. It refers to a group’s subordinate position in a larger society. The subordinate position may reflect a numerical fact; a minority group usually has fewer members than the majority group. Minority status also reflects a lesser influence within the larger society, as compared with the majority group (Ogbu, 1983). “Ethnic” and “minority” are sometimes used synonymously; some explicitly use “ethnic” as shorthand for “ethnic minority” (Phinney, 1996; Sue, 1991). Such usage suggests, illogically, that a majority ethnic group is not an ethnic group. The concepts, “ethnicity” and “minority,” however, are strongly related, especially *vis-à-vis* ethnic identity.

One implication of minority status is an increased importance, to the individual, of ethnicity. A series of empirical studies suggests that ethnicity and minority status are related in that minority status makes ethnicity salient to the individual. McGuire and Padawer-Singer (1976) elicited the “spontaneous self-concept” of sixth grade children by asking the children to “tell us about yourself” (p.745). They found that children were more likely to mention a specific aspect of themselves if it distinguished them from their

classmates (i.e., placed them in a “minority”). For example, youngsters whose age was six months more or less than the modal age of their classmates were more likely to mention spontaneously their age as a self-descriptor than were students within six months of the modal age of their classmates. McGuire et al. (1978) used a similar methodology and focused on the racial background of their subjects, who ranged from grades 1 to 11. They found that White students, by far the numerical majority in the schools they surveyed, were much less likely to mention spontaneously their race as a self-descriptor than were either Black or Hispanic students.

Phinney (1989) interviewed American-born tenth graders in metropolitan Los Angeles. Her interviewees included Asian-Americans, Blacks, Hispanics, and Whites. She asked the students open-ended questions about their perception of their own ethnic identity. She coded responses to match a scale reflecting a hypothesized course of “ethnic identity development.” Her assistants could code the responses of all but the White students with high inter-rater agreement (i.e., 80%). Phinney reported that the White students’ descriptions of their ethnic identities were not coherent enough to be coded reliably. She interpreted this to mean that the White students were not consciously aware of their own ethnicity; their majority group status reduced the salience of their ethnicity. These empirical results support the contention that minority status confers a distinctiveness that does not create ethnicity but serves to make it salient to the individual.

Minority status does not only make ethnicity salient to the individual. Another implication of minority status is exposure to disparagement by the ethnic majority group.

Although an examination of the definition of ethnicity showed that cultural practice may not be central to a psychological manifestation of ethnicity, ethnic minority groups do have some habits, practices and beliefs that differ from those of their majority culture peers. Often, but not always, the dominant culture disparages departures from majority culture norms: “minorities have special physical or cultural traits which are held in low esteem by the dominant segments of society” (Tajfel, 1982a).

Ethnic minority groups vary in their relationship to the dominant culture (Berry, 1988; Ogbu, 1983). Such relationships are not necessarily static, but one can discern their nature at a given point in time. Some groups, such as Jews or Mormons in the United States (at least at this time and place in history), are relatively autonomous. They may be subject to prejudice, but the dominant group does not totally subordinate them, either politically or economically (Ogbu, 1983). Caste-like minorities are the polar opposite. They are usually incorporated into the broader society more or less involuntarily and more or less permanently (Berry, 1988; Ogbu, 1983). Ogbu (1983) identifies Natives and American Blacks as examples of caste-like minorities. The dominant majority traditionally regards members of such groups as inferior on all desirable dimensions. Therefore, Native peoples and members of other caste-like ethnic minorities must contend with ignorance, stereotyping, and prejudices toward their group and themselves as members of their group.

Many theorists comment on the deleterious impact that such devaluation can have on individuals' self-esteem (Erikson, 1968; Gaines & Reed, 1995; Phinney, Lochner & Murphy, 1990; Tajfel, 1982a, 1982b). When theorists discuss the psychological

importance of prejudice and discrimination, it is concerning the negative impact on the individual of internalizing that disparagement, coming to believe that it represents a veridical assessment of the individual's group or the individual as a member of that group (Cross, 1991; Erikson, 1968):

“The individual belonging to an oppressed and exploited minority, which is aware of the dominant cultural ideals but prevented from emulating them, is apt to fuse the negative images held up to him by the dominant majority with the negative identity cultivated in his own group.”
(Erikson, 1968, p. 303).

This internalization yields a negative personal identity: “There is ample evidence of ‘inferiority’ feelings and of morbid self-hate in all minority groups . . .” (Erikson, 1968, p. 303). Clearly it is not the disparagement or prejudice *per se*, but its internalization that is the key variable. To predict self-esteem, the important issue to measure would be what opinion, or what level of esteem, individuals feel for their ethnic group. That is, the important variable is what feelings individuals have “internalized” about their ethnic group, their “group-esteem.”

Despite unspecified, “ample evidence of . . . self-hate in all minority groups,” it is not clear that ethnic minority individuals will internalize the dominant group's view of their group (Crocker & Major, 1989; Cross, 1991; Rosenberg, 1979), the foregoing discussion aside. The symbolic interactionist view of self-esteem (see “self-esteem,” later in this chapter) suggests that one internalizes the perceptions of “significant others.” The dominant majority group is not necessarily a “significant other” for every ethnic minority youth. Other sources of evaluation are available. To come to an ethnic

minority identity, an individual is socialized by agents of the minority group. One can reasonably believe that agents of the minority culture, parents and family, at least, do not necessarily disparage the individual for being a member of the minority group. They may be the “significant others” in the ethnic minority youth’s life. That is, belonging to a minority ethnic group, a person might experience disparagement that may come with ethnic minority status. The person might also be exposed to positive evaluative experiences from other members of the ethnic minority group and, thus, exposed to opportunities to develop a realistic sense of self-esteem, a positive evaluation of themselves.

One study supports the observation that members of minority groups do not necessarily internalize the dominant group’s disparagement, even when the minority group individual recognizes that disparagement. Crocker, Luhtanen, Blaine and Broadnax (1994) measured dimensions of “collective self-esteem” in a sample of 96 White, 91 Black, and 35 Asian college students. The dimensions they measured included public esteem (individuals’ beliefs about how the larger society perceives their group; this variable is called “group-esteem” in Figure 1a); private esteem (individuals’ own evaluative perception of their racial group); and importance of group identity to self. They also measured subjects’ personal self-esteem.

The results supported predictions about ethnic and minority group membership suggested earlier. Both Black and Asian students, whose racial minority status should have made their racial group membership salient, had much higher mean scores on the importance of group identity subscale than did the White students. Moreover, showing

that minority youths may be aware of public disparagement of their group, Black students' public esteem scores, their evaluation of how others saw their racial group, were markedly lower than those of White or Asian students.

Showing that minority youth may not share that disparagement of their group, Black students' evaluation of the own group (private esteem/group-esteem) was more positive than either White or Asian students' evaluation of their respective groups. As well, Black students' public and private esteem subscale scores were not correlated with one another, but those subscale scores were positively associated for both White and Asian respondents. Considering personal self-esteem, for White students, both public and private subscales were positively correlated with personal self-esteem, but for the Black and Asian students, only personal evaluation of their groups (group-esteem) was positively associated with personal self-esteem; Black students' public subscale scores were not significantly correlated with their self-esteem scores. Clearly, the Black students did not necessarily internalize White stereotypes of Blacks, but, for all students, personal evaluation of their group (i.e., group-esteem) was associated with self-esteem.

In the model shown in Figure 1a, Crocker et al.'s (1994) "private esteem" variable is called "group-esteem." In Figure 1a, group-esteem represents Native youths' evaluation of the Native group of their heritage.

Self-Esteem

The previous sections described the boxes to the left of the three-factor model shown in Figure 1a. On the right of the figure, the single box represents "self-esteem."

In this section, I discuss a definition of self-esteem. I also discuss the theorized sources of self-esteem.

Self-esteem is the evaluative component of the self-concept. It refers to an overall negative or positive feeling about the self or aspects of the self (Brown, 1993; Harter, 1990a; Marsh & Hattie, 1996; Rosenberg, 1965). Self-esteem has occupied an important place in research on adolescence (Blyth & Traeger, 1983; Dukes & Martinez, 1994; Rosenberg, 1965; Simmons, 1987). High self-esteem, a positive self-concept, is considered a good outcome in its own right (Brown, 1993; Simmons, 1987). Self-esteem is also thought to be a mediating variable, with high self-esteem believed to be reflected in positive academic, social, and mental health outcomes (e.g., Berndt & Burgy, 1996; Brown, 1993; Kugle, Clements & Powell, 1983; Marsh, 1993; Marsh & Yeung, 1997; Overholser et al., 1995; Schweitzer et al., 1992; Skaalvik & Hagtvet, 1990).

Researchers and theorists have devoted much effort to determining the nature of self-esteem (Harter, 1990a; Marsh & Hattie, 1996). Some believe that self-esteem is a single, global, unitary construct. Others believe that global self-esteem is epiphenomenal and that self-esteem is a series of domain-specific self-evaluations (e.g., sense of humour, athleticism, mathematics ability). Still others take a compromise position to conclude that self-esteem reflects a global self-evaluation that either parallels or is supported by a series of domain-specific self evaluations. Empirical study appears to support this latter interpretation best, that self-esteem has both global and specific components (Harter, 1990a; Marsh & Hattie, 1996).

Two major theoretical paradigms underlie current accounts of self-esteem formation (Harter, 1996). William James theorized that self-esteem is the product of two factors: one's aspirations and one's accomplishments. An aspiration reflects the subjective importance of a given aspect of self (e.g., musical ability is important to me). Accomplishment reflects one's performance in that aspect (e.g., I am a good or bad guitar player). A high aspiration and a high performance in some aspect of self contributes to high self-esteem. A high aspiration coupled with low performance detracts from self-esteem. Lacking aspiration to it, a given facet of self is irrelevant to self-esteem. Self-evaluations of those aspects of self with which one most strongly identifies are most strongly related to self-esteem.

A second theoretical paradigm incorporates the importance of subjective evaluation, as in James's framework, but adds a social component. The work of both Cooley and Mead emphasizes the role of the "reflected self" in the construction and maintenance of self-esteem (Lal, 1995). By this model, self-esteem is based on significant others' evaluation of the self. As one cannot know another's mind, the domain of subjective perception is key: self-esteem is a reflection of what one believes to be significant others' perceptions of self. People have high self-esteem if they believe significant others think well of them and low self-esteem when they believe significant others think poorly of them.

Harter (1990a) compared both theoretical approaches. Considering James's perspective, she found a total competence/adequacy discrepancy score (self-perceived competence minus self-rated importance) was associated with self-esteem. She

considered only dimensions of self-rating subjects considered important (unimportant dimensions being irrelevant to self-esteem). The larger the self-rated difference between competence and importance, the lower was self-esteem. She operationalized the symbolic interactionist perspective by tapping what subjects thought significant others believed about the subject's worth. Again, she found these ratings to be positively correlated with self-esteem. Most significantly, her analyses revealed that both models, the Jamesian and the symbolic interactionist, yielded significant prediction of self-esteem. One measure did not offset or compensate for the other.

Self-esteem, therefore, is a subjective evaluation of oneself. It has affective and cognitive components. Cognitive understanding and evaluation of self and of others' opinion of self contribute to produce an affective orientation toward the self. Self-esteem has both global and domain-specific manifestations that may be tapped independently. It is a product of both what one believes about oneself and what one thinks others believe about oneself.

Predictions About the Relationship Between Ethnic Identity and Self-Esteem

The three-factor model shown in Figure 1a emerges when one considers Native youths' socialization into a minority status, socialization into their heritage ethnic group, and socialization into the dominant culture as three key factors that lie between individuals' ethnicity and their self-esteem. The three factors in the model are: (a) evaluation of the minority group; (b) identification with the minority culture; and, (c) identification with the dominant culture. Each may act independently, and perhaps interact with the other factors, to influence self-esteem. In 1994, Verkuyten (1994)

suggested that one would require a model incorporating at least the factors of heritage identity and group evaluation, or “group esteem,” to understand the relationship between ethnic identity and personal self-esteem. But, he observed at the time, there was no existing study incorporating even those elements simultaneously. Particularly for Native youth, that has not changed. No such study has appeared.

By considering some theoretical frameworks presented in this chapter, specific hypotheses become clear about the relationship between self-esteem and the three-factors to the left of Figures 1a and 1b. The identity theorists, for example, suggest that a strong identity would form the foundation of a realistic sense of self-esteem. Therefore, for all youth, a strong ethnic identity might be associated with positive self-esteem. However, dominant culture youths’ ethnic identity may not be salient to them. The situation is different for a Native youth. For those youth, minority status makes ethnic identity salient. Salience serves to make ethnic identity important to a Native youth’s self-concept. Therefore, a Native ethnic identity should be positively associated with a Native youth’s self-esteem. This hypothesis is represented by a line directly connecting Native Identification and self-esteem in Figure 1a.

The Native youth is socialized not only into a Native ethnicity but also into the dominant culture. If Native youth develop an identity based on their participation in the dominant culture, they will have additional opportunities to develop a realistic self-esteem. A strong majority identity will, for Native youth, also be positively associated with self-esteem. This second hypothesis is represented by the line between Anglo Identification and self-esteem in Figure 1a.

Little Soldier (1985) and Berry (1990; 1997) each hypothesized that biculturalism would be most strongly predictive of positive outcomes for Native and other ethnic minority individuals. Together, a Native and a dominant culture identity may provide more opportunities to develop a realistic self-esteem than either alone, suggesting independent or additive effects of Native and dominant cultural identification to predict self-esteem. If the inconsistencies between the Native and the dominant culture make it too difficult for Native youth to develop either a strong Native or a strong dominant culture identity, let alone both, then they will be without such a foundation of a realistic self-esteem. For Native youth, a single strong ethnic identification should predict positive self-esteem; two strong identifications (i.e., biculturalism) should, commensurately, predict higher self-esteem. Having no strong ethnic identification (i.e., marginalization) should be associated with the lowest self-esteem.

The risks and opportunities of the dual socializing agents of the Native and dominant culture are not the only factors facing the Native youth. Being socialized into a minority status may also be important. The symbolic interactionist perspective, discussed under “self-esteem” suggested that one’s perception of others’ opinions of about self are directly reflected in one’s self-esteem. Group-esteem reflects the internalized notions one has perceived about one’s ethnic group. Therefore, a low esteem for one’s ethnic group should be associated with a low personal self-esteem. That is, if Native youth have a negative evaluation of their heritage group, then their self-esteem should be negatively affected. One expects a direct relationship between

Native youths' group esteem and their self-esteem, as represented by a line between group-esteem and self-esteem in Figure 1a.

Two factors in the three-factor model may interact to influence self-esteem. Ethnic identity may moderate the relationship between group-esteem and self-esteem. James made it clear that both aspiration and evaluations are important to determine an impact on self-esteem (Harter, 1993, 1996). If Native youths have a strong Native identity (i.e., an aspiration to be Native), then the effect on personal self-esteem of their evaluation of their Native group should be stronger. Youth who have a strong identification with their Native heritage, but who have internalized a disparaging view of Natives (i.e., has low group esteem) should, therefore, have low self-esteem. That is, one expects an interaction between esteem for the Native group and Native identity when predicting the self-esteem of Native youth. This hypothesized interaction is given in Figure 1b by the lines connecting Native identification and group-esteem together with self-esteem.

An interaction between group esteem and Native identity to predict self-esteem should not detract from a relationship between dominant culture identity and self-esteem. A dominant culture identification may shield youths' self-esteem by providing an alternative basis for self-esteem (e.g., "being Native might feel bad, but I am also of the dominant culture, so I do not feel as bad"). Therefore, one expects an additive effect between dominant culture identity and the group esteem/Native identity interaction in predicting Native youths' self-esteem. In Figure 1b, this independent effect is illustrated by the line connecting Anglo Identification and self-esteem.

In summary, a three-factor model guides this study. In chapter 3, the three-factor model also guides an evaluation of the relevant literature. The first factor is Native youths' identification with their heritage ethnic group, their "Native identity." The second factor is their identification with the dominant culture that surrounds them (in the sample described later, their "White or Anglo identity"). The third factor is Native youths' evaluations of their heritage group, their "group-esteem." Each factor is hypothesized to be directly related to Native youths' self-esteem. As well, the first and third factors of this three-factor model are hypothesized to exert an interactive influence, as described earlier, on Native youths' self-esteem. The specific hypotheses are repeated in point form at the end of chapter 3.

CHAPTER 3

Empirical Evidence

In 1992, Ledlow (1992) noted that little research addressed the reasons Native youth were vulnerable to mental health and psychosocial difficulties and virtually no evidence tested the putative link between ethnic identity and self-esteem in Native youth. The situation has not appreciably changed. A thorough search yielded only five published studies in which researchers measure a variable called “ethnic identity” in Native young people. Of those, only two also include a measure of self-esteem. Although the two studies support a direct relationship between ethnic identity and self-esteem, each neglects at least one component of the three-factor model presented in the last section. Therefore, the direct evidence supporting the link between ethnic identity and self-esteem in Native adolescents is meagre and incomplete.

This chapter presents a review of the available evidence. Before I review the direct evidence referred to above, a discussion of a larger body of studies is presented. That larger body of studies provides indirect evidence about the causal link leading from Native young peoples’ ethnic identities to their self-esteem. It comprises two classes of reports, self-esteem studies and studies assessing variables related to ethnic identity.

The first class of studies includes eighteen reports examining the self-esteem of Native youngsters. That is, the studies address only the endpoint of the three-factor model. Overall, those studies suggest that the self-esteem of Native adolescents is lower than that of non-Natives and that Native/non-Native self-esteem differences first emerge in adolescence. Both observations are consistent with a connection between ethnic

identity and self-esteem in Native youth but neither are direct evidence for a link between the two constructs.

Eight reports make up a second class of studies. In the second class of studies, researchers assess the impact of variables plausibly related to ethnic identity, tapping constructs such as acculturation, assimilation, and cultural milieu. They evaluate the impact of those variables on outcomes including self-esteem, drinking behaviour, and referrals for health care. The studies produce inconsistent results: variables related to ethnic identity or group-esteem sometimes are, and sometimes are not, related to the outcome variables. In none of the studies did researchers directly assess participants' dominant culture identity, group-esteem, or subjective perceptions of Native identity.

In keeping with the observations of Ledlow (1992), EchoHawk (1997), and Thompson and Walker (1990), this review shows that little evidence directly tests the relationship between ethnic identity and self-esteem. Most, but not all, available evidence is consistent with the hypothesized link. However, the bulk of evidence is indirect and thus subject to alternative explanation. The review also supports the conclusion that no existing empirical study has tested the three-factor model presented in chapter 2.

Self-esteem Studies

Studies examining the self-esteem of Native youth either assess the overall level of Native youths' self-esteem, or compare it with that of their non-Native counterparts. The logic underlying these studies is that if the dominant culture threatens or devalues Native youths' identities, then Native youth should have lowered self-esteem.

Self-esteem studies provide some suggestive evidence supporting a link between ethnic identity and self-esteem and they are an important part of the history of inquiry in this field.

Self-esteem Studies with Children. One can group self-esteem studies according to the age of their subjects. The first group of self-esteem studies assessed the construct in preadolescent children. Three of these studies used paper-and-pencil measures. Martig and DeBlassie (1973) and Bruneau (1984, 1985) used the Primary Self-Concept Scale, and Withycombe (1973) used unspecified measures of self-concept and self-perceived social status, to assess the self-esteem of 4- to 11-year-old Native and non-Native children. Results were uniform across the three studies, revealing no difference in self-esteem between Native and non-Native children.

Four additional studies used a “preference paradigm” popularized by Clark and Clark’s (1947) study of racial identification in Black children. In the preference paradigm, children are presented with drawings or dolls representing children of different races (i.e., groups defined by physical characteristics such as skin colour). Questions probe children’s ability to identify (a) the racial background of the persons represented by the drawings or dolls (“objective identification”), (b) the one most closely resembling the subject child (“subjective identification”), and (c) the child’s preferred playmate. Objective identification establishes the children’s ability to identify correctly the doll’s race. Critical questions involve subjective identification and preference. Researchers interpret self-identification as White or preference for the White child as playmate to reflect Native children’s dislike or low esteem for their own racial background.

With subjects ranging in age from 3- to 11-years, at different locations in Canada and the United States, Rosenthal (1974), Hunsberger (1978), George and Hoppe (1979), and Farris, Neuhring, Terry, Bilecky and Vickers (1980), employed the preference paradigm to produce consistent results. The objective identification skills of Native children consistently exceeded their subjective identification skills. Native children were more likely to identify correctly representations as White or Native (or something else) than they were to identify themselves as most like a representation of a Native child. Native children often identified themselves as most like a representation of a White child.

At first glance, it appears that results from the preference paradigm studies show Native children to have higher esteem for White children than for Native children. Closer examination reveals that these studies offer no information about ethnic identity or about self-esteem. The paradigm seeks to isolate preferences based on physical features, primarily skin colour. Ethnicity, as discussed earlier, is a much broader notion than mere physical appearance (Helms & Talleyrand, 1997). Therefore, it is not clear whether the preference paradigm reveals anything about ethnic identification or preference in Native children, as contrasted with racial identification or preference. As well, no one has tested the link between racial preference and self-esteem, particularly in Native children. A Native child could report resembling a White rather than a Native representation, or prefer a White playmate, and still have high self-esteem (e.g., "I do not look like a Native child and I like myself" is not an internally inconsistent statement, even if uttered by a Native child). Moreover, some have questioned the validity of the paradigm for studying racial identification at all (Banks, 1976; Cross, 1991). For

example, in research with Black children, controlling for subjects' skin tone reduces the apparent error rate for subjective identification. Black children with more darkly-hued skin are more likely to choose a dark-skinned picture than are Black children with lighter skin (Cross, 1991). No researcher has investigated such confounds with Native children.

One can subsume criticisms of the preference paradigm under larger questions about preadolescent children's ability to display any ethnic identification. Preadolescent children may not have the cognitive skills required to have an "ethnic identity" of the sort defined earlier (Quintana, 1998). For ethnic identity to affect children's self-esteem, they must have a stable sense of their ethnicity (Aboud, 1987). At least one part of a developing ethnic self-concept is ethnic constancy. Ethnic constancy is the ability to recognize both the consistency and continuity of ethnicity (Aboud, 1987). Consistency is the knowledge that ethnicity does not change despite superficial changes in appearance. Continuity is the recognition that ethnicity remains constant over time. Researchers have investigated only the first component, consistency, and never with Native children. Studies with children of non-Native ethnic groups suggest that not until a child is between 8- and 10-years-old is consistency well established (Aboud, 1984, 1987; Annis, Corenblum & Woesting, 1988; Ocampo, Knight & Bernal, 1997).

If children younger than 10 lack the cognitive underpinnings that support an ethnic identity, it is unlikely that ethnic identity would be a significant determinant of children's level of self-esteem. Thus, theoretical arguments about the development of identity and self-concept suggest that ethnic identity will not become an important part of the self-concept until at least early adolescence. Empirical results suggest that, during

childhood, individuals do not possess the cognitive substrates necessary for ethnicity to reliably influence their self-esteem. If children's ethnic identity is not stable enough to influence their self-esteem, it is difficult to discern the relevance of studies with children to a hypothesized link between ethnic identity and self-esteem. When contrasted with studies with adolescents, however, self-esteem studies with children offer some evidence consistent with the hypothesized emergence of ethnic identity in adolescence.

Self-esteem studies including Children and Adolescents. Two self-esteem studies that included both preadolescent and adolescent subjects produced results consistent with the emergence of ethnic identity in adolescence. The first study suggests that Native/non-Native self-esteem differences emerge in adolescence. Martin (1978) compared the self-esteem scores of Native and White fourth-grade (i.e., approximately 10-years-old), eighth-grade (i.e., about 14-years-old) and twelfth-grade students (i.e., approximately 18-years-old). He found that fourth graders' self-esteem scores did not vary by ethnicity, but that an ethnic group difference appeared for adolescents. At the eighth and twelfth grades, Native students' mean self-esteem scores were lower than White students' scores. Although it may reflect only a cohort effect, the emergence of statistically significant differences between Natives and non-Natives in adolescence suggests the corresponding emergence of another factor; the other factor might be threats to Native youths' ethnic identities.

In a second study, Lefley (1974b, 1976) studied youngsters from two tribes in the Southeastern United States, the more acculturated (i.e., less traditional) Seminole and the more traditional Miccosukee. She found that Piers-Harris Children's Self-Concept scale

scores of younger children (i.e., 7- to 10-year-olds) were higher than those of young adolescents (i.e., 11- to 14-year-olds), a finding also consistent with the hypothesized emergence of threats to ethnic identity in adolescence.

Lefley also found Miccosukee youngsters' self-esteem scores were higher than those of their Seminole peers. She attributed this latter finding to differences in acculturation between the groups. She assumed that more acculturated children are more subject to contradictory cultural influences, which would result in threatened or, at least, confused ethnic identity. Thus, the result is a piece of indirect, but suggestive, evidence supporting the hypothesized link between ethnic identity and self-esteem.

Self-esteem Studies with Adolescents. Nine self-esteem studies focussed on adolescent subjects have been published. Using a variety of paper-and-pencil measures, most of those studies suggest that Native adolescents have lower self-esteem than non-Native youth, including both their dominant culture counterparts and other non-Native ethnic minority youth. Some suggest caution about simple comparisons between Native and non-Native youth, especially regarding the cross-cultural validity of measures used to make the comparisons.

In three studies, researchers studied Native adolescents along with adolescents of at least two other ethnic groups. In each study, average self-esteem scores of Natives were lower than any other group's. Using the California Psychological Inventory, Mason (1969) compared Native, Mexican-American, and Caucasian 13- and 14-year-olds attending an academic remediation program in northeast Washington State. Using the Tennessee Self-Concept scale, Thornburg (1974) studied White, Black,

Mexican-American, and Native students in Arizona, all identified as potential school dropouts. Martinez and Dukes (1987) compared White, Black, Chicano, Asian, and Native American students in grades 7 through 12 on single item scales of self-perceived intelligence and satisfaction with self. In the former pair of studies, Native adolescents' self-esteem scores were lower than any other group's, and in the latter, although no statistical test was presented, Native males' and females' scores were lower than the overall mean on both measures.

Other studies focus on the special situation of Native students. For example, Clifton (1975) explicitly based his comparison of Native and White high school students' self-esteem on the hypothesis that Native students would have lowered self-esteem because of their subordinate social position and because of the discrimination they face. Students in grades 7 through 9 (i.e., 12- through 16-year-olds) completed a 7-item semantic differential scale regarding their evaluative self-perceptions and ratings of their attitudes toward school subjects. Only self-evaluations differed by ethnic group; attitudes toward school did not. Native students scored lower on self-esteem than did non-Native students. For both groups of students, self-esteem scores of older students were lower than those of younger students.

Heaps and Morrill (1979) based their frequently cited comparison of Navajo and White high school students on the hypothesis that "contact with a dominant society or culture that continually emphasized the 'different' and 'disadvantage' nature of the Navajo" might lead to "a tendency to develop self-conceptions that are generally lower than those of the dominant culture" (Heaps and Morrill, 1979, p. 12). Thus, they

expected lower self-esteem scores for Navajo than for White high school students. They also suggested, however, that a strong heritage identity may bolster self-esteem. They found that Navajo students' total score on the Tennessee Self-concept scale (TSC) was lower than the White students', but not significantly. The Navajo students' mean scores were significantly lower than the White adolescents' on four of nine subscales, suggesting less satisfaction with personal identity, moral-ethical self, and social relations, and more social defensiveness among the Navajo than among the Whites. Heaps and Morrill interpreted the results to mean the overall self-esteem of the two groups was not different, but that there may be specific areas of problem or conflict for Native youth. They did not address the possibility that although the dominant culture might challenge Native adolescents, a strong heritage identity may be sufficient to buffer those challenges. They did not measure ethnic identity.

Tempest (1985) presented more striking results in a report modelled on Heaps and Morrill's (1979) study. She found that grade 7 Navajo students (mean age = 13 years) scored in the lowest quartile of the Anglo-based norms for the TSC on total score and all save one of eight subscales. On the remaining "personal" subscale, the Native students' average percentile rank rose to 36.

Although straightforward comparisons of Native and non-Native adolescents' self-esteem generally show lower self-esteem among Native students, some authors argue that researchers should make comparisons cautiously. For example, Bognar (1981) cast the results of both Heaps and Morrill (1979) and Tempest (1985) into doubt. He attempted to replicate Heaps and Morrill's (1979) study with seventh and eighth grade

students from two different Native populations in Labrador, Inuit and Montagnais Indians. Comparison samples of non-Natives were drawn from comparably isolated coastal communities. Bognar used a “clinical and research” version of the TSC, which incorporated validity checks not present in the counselling form used by Heaps and Morrill (1979). He found significant differences, always more negative for the Native students, on five subscales. Bognar also reported, however, high scores among the Native subjects on the validity checks incorporated in the TSC. These high scores, Bognar suggested, impugned the validity of the TSC for making Native/non-Native comparisons.

Similarly, Church (1977) urged caution in the interpretation of his findings. He examined self-esteem in Navajo and Anglo males (a popular, non-derogatory term in the US Southwest to refer to Whites of the dominant culture) in a senior high school class. He used a semantic differential approach employing 10 item-pairs (i.e., happy/sad, good-looking/ugly, rich/poor, good/bad, smart/dumb, sober/drunken, clean/dirty, successful/unsuccessful, hopeful/hopeless, and comfortable/uncomfortable). Overall, there was a trend toward higher self-esteem among Anglo youth. The mean Anglo score was higher than the mean Navajo score for eight item-pairs, statistically significantly so only for “good-looking/ugly.” Navajo mean scores were higher than Anglo mean scores for two pairs, comfortable/uncomfortable and sober/drunken, statistically significantly so only for the latter. Notably, Church pointed out that he had taken no steps to establish the cross-cultural validity of the measures, and that one should not assume that all of the

Native students identified with their Native heritage (i.e., that their ethnic identity was “Native”).

Besides Church (1977) and Bognar (1981), Mason (1969), in a study discussed previously, cautioned about the cross-cultural validity of the measures she used to compare ethnic groups. Comparisons between Native and non-Native students can be valid only if the measures used to make the comparisons are valid indicators of self-esteem for both Native and non-Native students (Ackerson, Dick, Manson & Baron, 1990; Devins, Beiser, Dion, Pelletier & Edwards, 1997; Manson, Ackerson, Dick, Baron & Fleming, 1990).

Bienvenue (1978) considered this issue from a conceptual, not psychometric, point of view. Native adolescents’ self-esteem, she reasoned, will be threatened in domains valued by the dominant culture, where dominant culture norms form the standard of comparison. Similar threats to Native adolescents’ self-esteem should not be relevant in domains central to Native, and not non-Native, culture or values. That is, Native young peoples’ self-esteem should be lowered only where aspects of the self are considered in comparison to majority culture norms. In areas more relevant to Native culture, no decrements should be evident in the self-esteem of Native youth as compared with their dominant culture peers.

Bienvenue (1978) surveyed Native and Euro-Canadians in grades 10 through 12. Self-esteem was evaluated using a semantic differential scale. Item-pairs she considered either to be more relevant to the dominant culture or to reflect negative stereotypes about Natives were: intelligent/stupid; industrious/lazy; confident/non-confident;

important/non-important; and good looking /ugly. Pairs more relevant to face-to-face interactions, and, thus, more relevant to Native than non-Native culture than the first set, included kind/cruel; selfish/unselfish; pleasant/unpleasant; happy/unhappy; and, friendly/unfriendly. Bienvenue found that for the first set of traits, the mean score of the Native group was lower on all scales, statistically significantly so for all but "industrious/lazy." On the second set of pairs, the means of the Native group were again lower than the means of the non-Native group, but not statistically significantly. By strict statistical test, results supported Bienvenue's hypothesis, but inspection of the means did suggest an overall diminished self-esteem among the Native youth.

Summarizing Studies with Adolescents. Researchers did not establish the cross-cultural validity of measures used to compare Natives and non-Natives in any of the studies cited, so one must temper conclusions. An overall trend, however, did emerge. Although differences sometimes failed to reach conventional levels of statistical significance, Native adolescents appear to have lower self-esteem than their non-Native counterparts. This conclusion is in keeping with the hypothesized link between ethnic identity and self-esteem: Native youth had lower self-esteem than youth whose ethnic identities are not similarly threatened (i.e., dominant culture youth). As well, in contrast to the conclusion for adolescents, there was no clear evidence that preadolescent Native children had lower self-esteem than their non-Native peers. The preadolescent/adolescent difference is in keeping with the hypothesized emergence of ethnic identity as a significant part of the self-concept during adolescence.

The hypothesis that threats to ethnic identity or group-esteem would cause lowered self-esteem among Natives explicitly guided studies such as Clifton's (1975) and Heaps and Morrill's (1979). Assuming that results showing lower self-esteem among Native youths demonstrate that threatened ethnic identity is a precursor of lowered self-esteem would, however, be incorrect. Showing that an outcome occurs does not confirm that it is related to its hypothesized antecedent; the average self-esteem score for Native students could be lower than their non-Native peers' for reasons other than threatened ethnic identity. In the same way, merely showing that levels of self-esteem are not different between Native and non-Native adolescents would not establish that Native adolescents' ethnic identity is not linked to their self-esteem; they may have overcome threats to retain a strong ethnic identity as a foundation for healthy self-esteem. As well, a strong mainstream identity may provide an alternative basis for self-esteem. One would require measures of both ethnic identity and self-esteem to establish that the constructs are linked. Moreover, one would require direct measures of group-esteem, Native identity, and dominant culture identity to test the three-factor model presented in chapter 2.

Studies Incorporating Variables Related to Ethnic Identity

The self-esteem studies included no measures of ethnic identity. A second group of eight studies also includes no direct measures of ethnic identity, but, instead, incorporates variables that plausibly reflect ethnic identity. Self-esteem is the main dependent variable in most of the studies, but some consider variables such as alcohol use or health problems. In most of the studies, an association was found between

variables related to ethnic identity and the outcome of interest. Nonetheless, as none of the studies directly assess ethnic identity, results are again suggestive, at best.

In one study, an intervention to increase the cultural awareness of Native children (including both preadolescents and adolescents) yielded increases in self-esteem, and increased the strength of association between group-esteem and self-esteem in an experimental group. Lefley (1974a) administered a cultural awareness program to 20 Miccosukee children. Besides a self-esteem measure, she included an “Indian self-esteem scale” consisting of 12 statements relating to identification and satisfaction with Native lifestyle, personality, and body image (i.e., a “group-esteem scale”), and an “Indian Stimulus Scale” that elicited relative ranking of Native and White persons. Following two weekend trips with tribal elders and a series of classroom discussions, the experimental group displayed significant increases on the Indian Stimulus Scale (their relative ranking of Native persons increased) and on the self-esteem measure, but not on the Indian self-esteem scale. She also found that the correlation between Indian self-esteem and personal self-esteem was .12 for the Seminole comparison group of children, but for the Miccosukee children, increased from .05 at pretest to .58 at post test, a statistically significant increase.

Lefley did not directly measure Native identity, but her intervention may have strengthened Native identity in the experimental group. According to the three-factor model, this would account for an increase in the correlation between group-esteem and self-esteem; the model predicted a stronger association between group-esteem and self-esteem when Native identity is stronger. Although Lefley’s results do not provide

the data to support this interpretation directly, they are consistent with, and thus offer suggestive support for, the three-factor model.

According to Little Soldier (1985), schooling is the quintessential acculturative experience in the life of Native youth. Schools more amenable to Native values and life ways should engender fewer threats to Native youths' Native identities. Therefore, Native students attending such schools should have higher self-esteem than their Native peers attending more mainstream schools. At least, that was the hypothesis guiding studies by Cockerham and Blevins (1976) and Wall and Madak (1991).

Cockerham and Blevins (1976) compared seventh and eighth grade students attending two types of schools. They expected that "open schools," those with flexible learning environments, informal teaching methods, nongraded procedures, and emphasis on student decision-making and responsibility, would be more congruent with young Natives' cultural backgrounds than more mainstream schools. In another study, Wall and Madak (1991) compared Native grades 8 through 12 students attending a band-controlled school with Native students attending a regular public school. Both studies yielded results in the hypothesized direction. Cockerham and Blevins (1976) found that open-school Native students made more positive self-statement than Native students attending a mainstream school. Wall and Madak (1991) found the academic self-esteem (a domain-specific measure) of the students at the band-controlled school was higher (uniformly, but not significantly) than those at the public school. In situations where one expected fewer threats to Native identity, Native adolescents' self-esteem seemed higher.

One cannot, however, rule out selection biases; students at more “Native-friendly” schools may have begun with higher self-esteem than their counterparts at other schools.

Nonetheless, the findings were echoed in Boyce and Boyce’s (1983) examination of acculturation and cultural conflict as predictors of health-related variables in Navajo boarding school students. In a single school setting, they found that students more subject to threats to ethnic identity had more health-related difficulties than students less subject to such threats. For each of their study participants (ranging in age from 9 to 15 years), they obtained ratings of both the family’s and the home community’s level of acculturation. They found that youngsters from more traditional backgrounds, those more subject to threatened ethnic identity in the school setting, had more psychosocial problems than children from more acculturated backgrounds. They found a similar effect for cultural incongruity between family and home community. Boyce and Boyce (1983) assessed cultural incongruity as the difference in traditionalism between the family and the community of origin. Higher levels of cultural incongruity were associated with increased health problems. If cultural incongruity is a cause of threatened ethnic identity, as one would reasonably believe, then these results are in keeping with the predicted deleterious effects of threats to ethnic identity.

In another pair of studies, researchers assessed variables related to acculturation and tested them as predictors of self-esteem in Native high school students. Chadwick, Bahr, and Stauss (1977) operationalized assimilation into White society with (a) a scale comprising nine unspecified items, (b) number of Native and White friends, (c) extent of school-based extracurricular activities, and (d) interviewer-rated “degree of physical

Indian characteristics” (p.137). They also tapped students’ perception of discrimination by teachers. For males, the only significant association was a negative correlation between discrimination and self-esteem. Neither variables related to Native identity (e.g., number of Native friends) nor variables related to a dominant culture identity were related to self-esteem. Among females, assimilation scores and number of White friends were negatively correlated with self-esteem (contrary to the supposition that dominant culture identity would be positively related to self-esteem) and number of Native friends was positively correlated with self-esteem.

Barnes and Vulcano (1982) used academic self-acceptance, a domain-specific measure of self-esteem, as a primary dependent measure. They measured “social assets” including owning a home, having many friends, and having enough money for food and clothes. They also created a behavioural index of family acculturation consisting of language spoken at home, father’s and mother’s education, owning a television, and father’s wage employment, all distant proxies for dominant culture identification. Their results showed that Native students had lower scores for school self-acceptance than White students. Using a regression strategy, they found that social assets were positively associated, and age negatively associated, with school self-acceptance. These variables did not, however, account for Native/non-Native differences. A variable coding “ethnic group” (i.e., Native vs. non-Native) added predictive value to the equation beyond that of the other two factors. Their measure of acculturation, however, did not add predictive value to the regression equation.

These latter two studies failed to provide support for the hypothesized link between ethnic identity and self-esteem. Variables related to ethnic identity generally were either not related to self-esteem, or were related in a direction opposite to the one predicted in the model (e.g., a negative association between number of White friends and self-esteem for Native girls). On the other hand, perceived discrimination (a possible precursor of lowered group-esteem) was negatively related to self-esteem, at least for Native boys. None of the variables, however, tapped subjective identification or group-esteem. Therefore, the variables used in these studies may have been unrelated to the ethnic identity and group-esteem constructs set forth in the three-factor model. That aside, Chadwick et al.'s (1977) and Barnes and Vulcano's (1982) results generally were not consistent with that model or, more generally, with the supposed importance of ethnic identity.

"Alienation" was the main independent variable in two studies. Although researchers did not define the construct in either report, it appeared to be the inverse of assimilation, reflecting a discomfort with, or lack of adaptation to, the dominant culture. Trimble (1987) found that alienation was inversely related to self-esteem and Holmgren, Fitzgerald and Carman (1983) showed it to be directly related to "personal psychological drinking motivations," "which imply a need for alcohol to reduce psychological distress" (p. 139).

Without a definition of "alienation," one might accept Holmgren et al.'s (1983) interpretation that their results, along with Trimble's (1987), lend "weight to the notion that important dimensions of psychological adjustment might be related to one's location

in the sociocultural system” (p. 140). In essence, their interpretation is a summary of the general hypothesis about a link between ethnic identity and self-esteem. As with the other results in this group of studies, however, it is very difficult to accept the results as anything more than very indirect support for the supposed link. Their results support, but do not test, their interpretations: alienation may or may not reflect one’s position in the social system.

The measures employed in each of these studies are crude indicators of cultural affiliation or ethnic identity and thus, the results are suggestive at best. The results were, however, generally, but not completely, consistent with the hypothesized link between ethnic identity and self-esteem. That is, in most of the studies cited, variables that are plausibly associated with ethnic identity, or with threats to ethnic identity, are themselves associated with Native adolescents’ level of self-esteem. This was not uniformly true; the results of some studies were not consistent with hypotheses about links between ethnic identity and self-esteem. In either case, this evidence is far from direct, however, and easily questioned; one cannot exclude alternative explanations. Direct measurement of ethnic identity would present much more powerful evidence to test any hypotheses about ethnic identity and self-esteem.

Studies Employing Direct Measures of Ethnic Identity

A thorough search yielded only five studies published to date in which researchers measure the ethnic identity of Native adolescents. Of these, three measure Native identity, but not dominant culture identification. Another two studies tap both

dimensions. Only two studies include measures of self-esteem. None of the five studies assess group-esteem.

With a sample of ninth and twelfth grade Native adolescents, Lysne and Levy (1997) examined components of “search,” trying to discover more about one’s ethnic identity, and “commitment,” a person’s dedication to a Native American identity. They based these components on Marcia’s (1966, 1980) operationalization of Erikson’s (1950, 1968) formulations about identity and Phinney’s (1992) extension of that operationalization into the realm of ethnic identity development. In accord with the previous theorizing, Lysne and Levy predicted that older adolescents would display more of both components than younger adolescents (i.e., would have better developed ethnic identities). Results did not bear out this prediction. There was no main effect for age on either variable.

Lysne and Levy (1997) examined school context as a predictor of ethnic identity search and commitment. Study participants attended one of two types of schools: an on-reservation school with a predominantly Native student body and two off-reservation schools with predominantly Caucasian student bodies. For measures of both search and commitment, Native adolescents at the predominantly Native school had the highest scores.

Lysne and Levy (1997) did not present any compelling interpretation of the school context main effect; it appears to run counter to the assumption that minority status makes ethnic identity more salient. That is, one might expect that ethnic identity would be more salient to students at the school where Natives were in the minority and,

thus, that those students would have the highest scores on ethnic identity development. A possibility is that issues around a Native identity are more likely to be a part of the curriculum at a Native-dominated school than at a White-dominated school; at the predominantly Native school, students might simply have had more opportunities to explore or search for information about their identity. As well, school context may have had no effect of students' perception of their minority status; Natives are an ethnic minority group in the United States, whatever their school context. Finally, one cannot rule out selection biases as an influence on these results; the researchers did not randomly assign students to school condition.

Although Lysne and Levy's (1997) results made it clear that one can reliably measure Native adolescents' ethnic identity, they included no other measures, particularly not measures of self-esteem. Bates, Beauvais, and Trimble (1997) measured Native ethnic identification in a sample of 202 Native adolescents, and assessed its association with alcohol involvement. Six questions, each on a 4-point scale, tapped participation in Native traditions, friendship patterns (i.e., what proportion of your friends are Native?), parental and self-identification as Native, and acculturative status. They asked each question about Native identification independent of dominant culture identification. That is, questions did not ask "Are you more Native or more Anglo?" but, "How strong is your Native identity?" In this way, the researchers avoided conflating Native and dominant culture identification. They did not report any of the scale's psychometric properties, but they did show that it was unrelated to measures of alcohol involvement. This ran counter to at least one manifestation of the hypothesized

link between ethnic identity and self-esteem (i.e., as related to alcohol use), but they did not include the mediating variable of self-esteem. Nonetheless, these results suggested that Native identity may not be uniformly related to significant outcomes in Native youth.

Zimmerman, Ramirez-Valles, Washienko, Walter & Dyer (1996) included a measure of self-esteem in their project to develop a measure of “enculturation” for Native American youth. Their scale included items tapping interest in Native American culture, the family’s level of traditional cultural practice, and a single question, “Do you see yourself as American Indian?” (p. 300). In a sample of Native youths ranging in age from 7- to 18-years-old, they found the one year test-retest correlation of their scale to be .50. Zimmerman et al. (1997) also found the scale correlated positively and significantly with students’ number of Native friends, and students’ perceptions of importance of Native American identity to their parents. These correlations attested to the scale’s reliability and validity. Most important, in two separate samples, they found the scale correlated positively with self-esteem ($r = .21$ and $.50$, p ’s $< .05$; moderate to large effect sizes; Cohen, 1992).

Zimmerman et al. (1996) convincingly showed that their measure of enculturation was positively correlated with self-esteem. They deliberately treated Native identity as independent of a youth’s integration into the dominant culture. In this way, their conceptualization was in accord with the three-factor framework (i.e., they treated Native and Anglo identification as separate issues). Their study, however, left the dimensions of identification with the dominant culture and group-esteem unmeasured. Earlier work by

Oetting and Beauvais (1990) included both Native and dominant culture identity in a presentation of their “Orthogonal Cultural Identification Theory.” As did Zimmerman et al. (1996), Oetting and Beauvais reasoned that strength of identification with the minority culture is a dimension independent of a Native youth’s level of identification with the dominant culture. Unlike Zimmerman et al. (1996), however, Oetting and Beauvais maintained that both types of ethnic identification were part of a youth’s ethnic identity and that, therefore, one should include both in measures of ethnic identity.

To measure both minority and majority ethnic identification, Oetting and Beauvais (1990) formulated an Orthogonal Ethnic Identification scale. They designed questions to tap an individual’s involvement and “stake” in, or sense of commitment to, each possible ethnic identity. To assess each ethnic identification of interest, they used four questions: (a) Do you live by the . . . way of life?; (b) Will you be a success in the . . . way of life?; (c) Does your family live in the . . . way of life?; and, (d) Is your family a success in the . . . way of life? “Native American” and “Anglo” were substituted, in turn, for the blanks. Each question was asked twice, once for a Native Identity and once for an Anglo identity. Thus, to assess ethnic identification, they asked adolescents eight questions (i.e., two versions of each question). Each youth then received two scores, one for Native identification and one for Anglo identification.

In their report, Oetting and Beauvais presented results using a large sample of Native American youth. They described none of the characteristics of their sample, beyond that respondents were in grades 7 through 12. Using exploratory factor analyses, they found the scales formed two discrete factors, one for Native identification and one

for Anglo identification. All items loaded strongly and uniquely on the relevant factor. The scales displayed very high internal consistency (alpha's greater than .80). They also found, among Native adolescents, that Native identification scores were associated with measures of participation in Native culture, while Anglo identification scores were not. These results supported the validity of the scales.

Oetting and Beauvais (1990) used their model to predict self-esteem scores of Native youth. They used a 9-item scale to measure self-esteem. To analyze the relationship between ethnic identity and self-esteem, they divided ethnic identification scores into low, medium, and high. They then performed a 2-factor, 3 (high, medium, or low Native identification) by 3 (high, medium, or low Anglo identification) ANOVA with self-esteem as the dependent variable. Their results showed the utility of considering both minority and majority identification. Consistent with Zimmerman et al.'s (1996) results, they found self-esteem to be positively associated with Native ethnic identification (i.e., there was a significant main effect for Native identification). They also found, consistent with predictions based on the three-factor model, a significant positive association between Anglo identification and self-esteem among Native youth. Finally, a significant interaction term indexed the fact that Native youth who evidenced both high Native and high Anglo ethnic identifications manifested the highest self-esteem scores. This was as hypothesized in chapter 2.

Weaver (1996) used Oetting and Beauvais's (1990) model and questions to assess the ethnic identities of 103 Native youngsters at seven sites in the US. She assessed not only White and Native identifications of the students, but also African American,

Spanish/Mexican American, and Asian American identifications. The three-factor model incorporates identification with the heritage and the dominant culture. By exclusion, it implies no identification with non-Native, non-dominant culture ethnicities. Just as youth of the dominant culture are not socialized into minority identities, so too are Native youth not socialized into other, non-Native minority identities. Weaver's results tended to support that observation. Across all the sites, respondents displayed strong to moderate "Native" and "White American" identification scores. At most of the sites, African-American, Spanish/Mexican-American, and Asian-American identification scores approached 20 (in Weaver's scoring system, scores of 20 indicated no identification with that ethnicity). When respondents' average scores for these latter three ethnic identities were stronger (less than 20), they still did not approach mean scores for Native and White American identities.

Weaver (1996) included unspecified measures of health-related variables, diet, dietary attitudes, and recreational tobacco use. She expected ethnic identity scores to be associated with scores on these variables. She found, however, no systematic relationship between any of the ethnic identification measures and those health-related variables. The subjects of Weaver's study, however, were from 8- to 12-years-old, in their late preteen years. Therefore, their ethnic identities may not have been sufficiently established to influence aspects of their behaviour or attitudes. Nonetheless, this result does not support the supposed importance of ethnic identity.

Taken together, these studies show that one can measure ethnic identity both reliably and validly among Native American adolescents. The studies also suggest that

the ethnic identity of Native American adolescents may be associated with their self-esteem. These studies show that consideration of both minority and majority ethnic identification is important for a complete model to describe the relationship between ethnic identity and self-esteem. None of these studies, however, taps the third element of the three-factor model, group-esteem.

The studies are not uniform in their support for the centrality of ethnic identity. Although they did not measure self-esteem, Bates et al.'s (1997) results suggest that Native identity is not a crucial explanatory variable in Native youths' drinking behaviour. Weaver's (1996) results, as just discussed, are similarly not supportive of the supposed importance of ethnic identity. The negative results are not from studies in which self-esteem was directly measured. Therefore, the negative results may not be directly relevant to the hypotheses about links between ethnic identity and self-esteem. They do suggest, however, that ethnic identity may not have the explanatory power theorists usually accord it.

Given the supposed importance of a link between ethnic identity and self-esteem among Native youth, the dearth of studies directly testing the link is surprising. One might easily surmise the existence of some "file-drawer" effect whereby researchers have simply not published other negative results. Thus, the existence of two studies consistent with the hypothesized association cannot be considered sufficient evidence to give one confidence in an empirically established link between ethnic identity and self-esteem.

Summarizing Empirical Work to Date

Only five published studies have directly measured ethnic identity in Native youth. Therefore, as commentators have observed, the empirical foundation for the prevalent belief in a link between ethnic identity and self-esteem is weak. There is some suggestive evidence. As a whole, self-esteem studies suggest that adolescence ushers in a period of risk for Native youths' self-esteem. Pre-adolescent Native children's self-esteem is not lower than that of their non-Native age mates; Native adolescents seem to display consistently lower self-esteem than their non-Native peers. Some variables plausibly associated with threats to ethnic identity or threats to group-esteem (i.e., minority status) appear to be related to the self-esteem of Native adolescents, but results are not consistent across studies. At least two of the factors in the three-factor model are measurable and separable. However, no existing study included all of the factors included in the three-factor model to account for effects of threats to Native youths' ethnic identity on their self-esteem. Therefore, there is only meagre evidence to directly support the hypothesis that ethnic identity and self-esteem are linked and there is no data available to test the three-factor model specified in chapter 2.

Summary and Hypotheses

Chapter 1 described the general hypothesis that threats to their ethnic identities lead to lowered self-esteem among Native youth. Theorists invoke the hypothesized link between ethnic identity and self-esteem in discussions of Native youths' academic underachievement, substance-use, and suicide. The hypothesized link between ethnic identity and self-esteem also influences prevention programs designed to ameliorate Native youths' problems.

As discussed in chapter 1, some commentators question the prevalent belief in a link between ethnic identity and self-esteem. Some point out that a correlation between the influence of the dominant culture and the problems observed among Native youth does not prove a causal relationship between those factors. Others observe that belief in the supposed link between ethnic identity and self-esteem is influential, but without empirical foundation.

A summary and critical review of the empirical literature presented in chapter 3 supports the conclusion that the empirical evidence is limited. A small body of research is consistent, but not uniformly so, with the hypothesized link between ethnic identity and self-esteem, but does not directly test it. Only two studies directly test the link. Those studies support a connection between Native identity and self-esteem. The studies do not, however, test the three-factor model presented in chapter 2.

The three-factor model described in chapter 2 encompassed factors accounting for the two principal issues Native youth face in their efforts to establish an ethnic identity. Native youth are socialized into their heritage and into the dominant culture. Confusion

and conflict between the two cultures is supposed to make it difficult for Native young people to develop a coherent ethnic identity. To account for this, the model includes identification with Native culture and identification with the dominant culture. The second issue is being socialized into a minority status. The model's third factor, accounting for the influence of minority status, is group-esteem.

The model, illustrated in Figures 1a and 1b, implies that each of the three factors influences the self-esteem of Native youth. Following the identity theorists, a strong ethnic identity is hypothesized to influence self-esteem directly. A Native youth may form an ethnic identity based on her or his Native heritage and/or based on the dominant culture. Therefore, the first two hypotheses are:

1. The level of Native identification among Native youth will be positively associated with their self-esteem.
2. Levels of Anglo identification among Native youth will be positively associated with their level of self-esteem.

The three-factor model suggests that the effect of Native identification and the effect of Anglo identification will be independent. That is, just as Native and Anglo ethnic identities may develop independently, so too will they influence self-esteem independently. Separate lines in Figures 1a and 1b connecting Native identification and Anglo identification to self-esteem illustrate these independent effects.

Membership in a minority group exposes Native youth to devaluation of their heritage, mostly by members of the dominant group. Native youth are also exposed to other members of their ethnic group whom they can expect to value a Native heritage. A Native youth will internalize some evaluation, positive or negative, of her or his heritage.

Chapter 2 defined such evaluation as a Native youth's "group-esteem." Group-esteem is expected to be associated with the self-esteem of Native youth. This is an implication of the symbolic interactionist hypothesis, described in the self-esteem section of chapter 2, that one's internalization of others' feelings about oneself will affect one's self-esteem.

Therefore, the third hypothesis is:

3. Native youths' level of group-esteem will be positively associated with their level of self-esteem.

The connection between group-esteem and self-esteem is illustrated by lines connecting the two boxes in Figures 1a and 1b.

A Jamesian perspective on self-esteem, also described in chapter 2, suggests that one's level of identification with one's heritage (i.e., Native identification) will interact with one's esteem for the heritage group (i.e., group-esteem) to predict self-esteem. The stronger one's identification with one's heritage ethnic group, the more important will be one's evaluation of one's Native group as a correlate of self-esteem. Therefore, the fourth hypothesis, illustrated by a line connecting Native identification, group-esteem, and self-esteem in Figure 1b, is:

4. Their level of Native identification will influence the association between Native youths' group-esteem and their self-esteem, such that stronger Native identification will yield stronger or more direct relationships between group-esteem and self-esteem.

The effect of Anglo identification on self-esteem is expected to be independent of such an interaction. That is, Anglo identification may serve as a protective factor for the self-esteem of Native youth, even when an interaction between group-esteem and Native identification negatively influences their self-esteem.

Adequate tests of these hypotheses presuppose adequate measures of the study constructs. Therefore, a substantial portion of the analyses for this project will address the psychometric adequacy and validity of the measures employed. The justification for each analysis will be presented with those analyses.

CHAPTER 4

Methods

Setting and Participants

The study took place in a small town in the Four Corners area of the United States Southwest (i.e., where the borders of Arizona, Utah, Colorado, and New Mexico meet). As a condition for allowing the project to proceed, officials at the study site required that I not identify the school (and, therefore, the town) by name. This has become common practice in research involving Native communities (Norton & Manson, 1996); the non-Native school officials' discretion is consistent with this practice. To illustrate the context in which the study participants live and attend school, the following provides some description of the town and of the participants' ways of life.

Arriving in the town by road, one is first struck by its isolation; the next sizable settlement is at least an hour's drive away. Every view from the town is of the eerily beautiful surrounding desert. Throughout the day, the changing light brings shifting colours to the desert sandstone. In the town, some areas look like subdivisions in a large city's suburban outreaches, with large middle-class homes and strip malls. Other parts of the town house trailer parks and light industry.

The town is home to fewer than 10,000 permanent residents. Tourism is its main industry. The major employers are the National Park Service, the school district, some resource-based industries, and several small retail and service companies catering to the tourist market. Residents of the town range from the seasonally-employed through to well-paid administrators and professionals.

The town lies close to the Navajo reservation, by far the largest and most populous Native reservation in the United States (Goodman, 1982; Paisano, 1993). The reservation straddles three states, Arizona, New Mexico, and Utah. According to the 1990 US census, of the total 219,000 Navajos in the US, approximately 144,000 live on the reservation (Paisano, 1993). Until the 1950s, the main source of subsistence on the reservation was livestock herding. Since then, a wage economy consisting of resource industries, tourism, craft-making, and government work has become an increasingly important part of the Navajo economic base. The wage and welfare economy, however, has not totally supplanted the herding economy (Bailey & Bailey, 1986; Goodman, 1982). As a result, many Navajos on and near the reservation live in traditional ways. At the same time, many live by the ways of the surrounding dominant culture, and many have life ways that are an amalgam of both the traditional and the acculturated.

The study participants were students registered in grades 10 and 11 homeroom classes at the town's only high school. Approximately 1,100 students in grades 9 through 12 attend the high school. Students live both in the town and in surrounding communities, including the reservation. The school's student body is about evenly divided between Native and non-Native students (primarily White, or Anglo; see below). Most of the Native students are Navajo. Like Navajos on the reservation, Native students at the high school range from the very acculturated, living in town, to the very traditional, living on the reservation at settlements some distance from roads.

Students' answers to several questions on the survey instrument (see below) illustrate the diversity of the Native students' life ways. They also show the differences

between the life ways of the Native and the Anglo students at the high school. For example, of the Anglo students, 98% lived in the town, compared with 27% of the Native students. Another 71% of the Native students lived on the reservation. Of the Native students, 30% lived in homes more than 100 feet from a paved road (more than half of those lived farther than 100 feet from a dirt road, as well), compared with only 3% of Anglo students. Of the Native students' homes, 42% had a telephone, compared with 98% of Anglo adolescents' homes; 83% of the Native youth lived in homes with indoor plumbing, compared with 99% of the Anglo students. Of the Native students, 40% travelled for more than half an hour to get to school each day (a quarter of those students took longer than an hour). Only 9% of the Anglo students spent more than 15 minutes travelling to school.

Recruitment Strategy

High school staff and the University of Toronto's Review Committee on the Use of Human Subjects approved this project, including the recruitment protocol. Before the survey, the school's Assistant Principal mailed letters to parents. The letter advised parents of the survey's contents and administration date (the letter's contents are reproduced in Appendix 1). It asked parents to reply only if they did not want their child to participate in the survey. Seventeen students' parents replied to the letter. On the day of the survey, teachers gave all other students attending grade 10 or 11 homeroom classes a consent form (Appendix 1; this group included some grades 9 and 12 students registered in mixed classes). Students indicated on the consent form whether they did or did not want to complete the survey. Eighteen students refused to participate.

Three-hundred sixty-nine students agreed to take part in the survey. Of those, 358 (97%) provided enough data to allow the calculation of at least one independent variable and at least one dependent variable (see measures, below). On the third page of the questionnaire (see Appendix 3 for a copy of the survey instrument), students indicated the ethnic category to which they belonged, using a set of imposed categories. The categories³ were: (a) Native American; (b) Hispanic or Mexican American; (c) Asian; (d) White or Anglo; (e) Black or African American; and (f) other. Students marked as many categories as applied to themselves. I assigned two students who provided no ethnic category information to the “other” category. Analyses presented in the first part of the results section test the validity of these category assignments.

Table 1 displays a summary of the 358 students’ ages, broken down by ethnic category, gender, and grade. There was no difference in the composition of the Native and Anglo groups according to gender ($\chi^2(1) = 1.74, p = .19$) or grade ($\chi^2(3) = 2.22, p = .53$). The Native students were slightly older than their Anglo counterparts ($t(293) = 4.05, p < .001$). The age difference obtained across and within the grade levels.

The purpose of this study is to evaluate a series of hypotheses, not to discern population levels of ethnic identity or group-esteem among Native youth. For any study, a random sample drawn from a well-defined study population is a theoretical and methodological ideal. Geographical, financial, and other practical constraints rendered

³ The category labels reflect locally appropriate designations for the ethnic groups that make up the town’s population. The use of “generic” terms such as “Native American” or “White or Anglo” is not intended to suggest that either of these designations is adequate to encompass all the ethnic groups that may fit under such labels. Neither is the use of these categories intended to imply that groups identified by “racial” criteria are necessarily coterminous with “ethnic groups,” although sometimes they are.

that impossible. The study sample for this project was, instead, purposefully selected as a good one with which to examine the hypotheses. As suggested earlier, Native adolescents attending the high school range from the very traditional to the very acculturated. Their situation exposes them both to Native and to Anglo culture, and to the prejudices, stereotypes, and affirmations that may affect group-esteem. The characteristics of the location, therefore, suggest that adequate variability will be observed in the study variables, enough to facilitate reasonable tests of the study hypotheses. At the end of this method chapter, I discuss the level of statistical power available in the sample.

Table 1: Students' Mean ages (years), by Ethnic Category, Grade, and Gender

Ethnic Category	Grade				Total
	10 ^a		11 ^b		
	Male	Female	Male	Female	
<u>Native</u>					
<u>M</u>	16.0	15.9	17.3	17.2	16.5
<u>SD</u>	0.7	0.7	0.9	1.0	1.0
<u>n</u>	41	59	31	33	164
<u>White/Anglo</u>					
<u>M</u>	15.7	15.6	16.7	16.4	16.1
<u>SD</u>	0.6	0.6	0.5	0.5	0.7
<u>n</u>	40	42	37	31	150
<u>Native & White</u>					
<u>M</u>	16.0	15.3	16.5	17.0	15.9
<u>SD</u>	-	0.5	0.7	-	0.8
<u>n</u>	1	4	2	1	8
<u>Other/Combination*</u>					
<u>M</u>	16.0	15.3	16.4	16.8	16.2
<u>SD</u>	0.7	0.5	0.5	0.6	0.8
<u>n</u>	13	6	7	10	36

Notes: No student used the category "Asian"

* includes two "Black or African American," and nine "Hispanic or Mexican-American"

^a includes 6 Native and 4 Anglo grade nine students

^b includes 4 Native and 2 Anglo grade twelve students

Materials and Measures

To collect data for this project, I was able to add questions to a larger survey. The design of the survey instrument used for this project, and for the larger project, arose from the confluence of several opportunities. Dr. Morton Beiser, supervisor for the current effort, had surveyed children in the town as part of the Flower of Two Soils (FOTS) project. Therefore, the current project relied heavily on the long efforts he had put into establishing relationships with school district personnel at this site, among others.

FOTS was a three-year longitudinal study of mental health and academic performance in Native and non-Native children. It began with children in grades 2 and 4. The goal of the larger survey was to follow children who had participated in the FOTS project into adolescence. Therefore, we required a survey instrument to address issues relevant to Native adolescents and to FOTS constructs.

In addition to being Principal Investigator for the FOTS project, Dr. Beiser was a consultant to the “Voices of Indian Teens” project (VOIT). The VOIT project was a longitudinal study focused on Native adolescents (Mitchell & Beals, 1997; Mitchell, O’Neill, Beals, Dick & Manson, 1996; Moran, Fleming, Somervell & Manson, in press), conducted under the auspices of the National Center for American Indian and Alaska Native Mental Health Research (the National Center). VOIT involved the collaboration of 10 high schools in five western US Native communities, not including this study’s town. National Center researchers designed the VOIT survey to tap a large range of variables linked with Native and non-Native adolescent alcohol and drug abuse.

With the cooperation of National Centre staff, we edited the VOIT survey to make it suitable for use in the town's setting. In this incarnation, both Native and non-Native youth completed the VOIT survey, so it became the Voices of Teens (VOT) survey. In contrast to the Native-focused VOIT survey, all questions in the VOT survey had to be suitable for use with Native and non-Native youth. The eventual aim was to link data from the FOTS survey with data gathered for the current survey.

We edited the original survey instrument to meet three sets of conditions. First, questions were added to simplify later comparisons with the FOTS dataset and, most important to the current effort, to address questions directly related to ethnic identity (e.g., the original survey included no group-esteem scale). Second, local school district personnel had to approve the survey instrument. They required some questions be dropped (e.g., all questions referring either to sexual activity or to suicidal ideation or behaviour), and requested some additions for local use (e.g., about students' perceptions of teachers' helpfulness). Finally, we retained as many questions as possible in their original form, to facilitate eventual comparisons with the National Center's dataset.

Grade 4 students from FOTS were in grade 9 (i.e., attending the high school) during the 1994/1995 school year. We administered the survey to grade 9 students during the 1993/1994 school year as a pretest, to grades 9 and 10 students in 1994/1995 (a subsample of the grade 9s had been FOTS participants), and to grades 10 and 11 students during the 1995/1996 school year, in February 1996. The final, 1995/1996 survey provided the data for the current project. The final survey was the only one to include all of the measures described below.

The following sections describe the study measures. There are three groups of measures. The first group consists of the main independent variables. The independent variables include measures of ethnic identity (both Native and dominant culture) and group-esteem. The second group comprises the main dependent variables. Three measures of self-esteem make up the dependent variables. The final group of measures comprises a series of scales and questions used to evaluate the validity of the ethnic identity measures.

Independent Variables

The independent variables are measures of the constructs specified in the three-factor model. Measures of ethnic identity operationalize the first two constructs. Native identity is the first type of ethnic identity for Native youth. In the town, “White or Anglo” describes the dominant culture (the latter term is a locally appropriate, non-derogatory designation for Whites of the dominant culture). Therefore, White or Anglo identity is the second independent variable. The third independent variable taps group-esteem.

To reduce order effects, each student completed one of two alternate versions of the survey instrument. The alternate versions varied the ordering of the independent variables. In the first version of the instrument, the measures of ethnic identity appeared first (Appendix 3; survey version 1, pp. 7 - 9). Several pages later, the group-esteem measure appeared (version 1, p. 15). The second version of the instrument juxtaposed these, with the group-esteem measure appearing several pages (version 2, p. 8) before the principal ethnic identity questions (version 2, pp. 14 - 15).

Ethnic Identity. The VOT survey incorporated measures of ethnic identity formulated according to “Orthogonal Identification Theory” (Oetting & Beauvais, 1990). In this framework, one measures ethnic identities independently of one another, but using parallel questions. That is, each question reflecting an ethnic identity is repeated for each ethnic identity being measured. Using this strategy, we could measure respondents’ Native identities and their White/Anglo identities using the same items. The strategy allowed us to ask questions about identity in a manner equally suitable for Native and non-Native students. A list of scale items appears in Tables 3a and 3b in chapter 5.

The survey included the four questions used by Oetting and Beauvais (1990; as described earlier, in chapter 3; see Items 2, 3, 4 and 6 in Tables 3a and 3b). Oetting and Beauvais (1990) designed these questions to tap an individual’s involvement and “stake” (i.e., sense of commitment) in each possible ethnic identity. The questions addressed the cultural life of the respondent’s family and self, and family and self “success” in the respective cultural ways of life. The VOT survey asked each question once for each of five possible ethnic identifications, with a sixth, “miscellaneous” category: (a) Native American; (b) White or Anglo; (c) Hispanic/Mexican American; (d) Black or African American; (e) Asian; and, (f) Other. The last two categories were added to the VOT scale at the request of school personnel. Their goal was to maximize the inclusiveness of the survey, since a few students of Black or Asian descent were registered at the school. Only the “Native” and “Anglo” responses are of interest in this project.

Following a series of focus groups with Native youth, National Center staff added an additional four questions to the Orthogonal Ethnic Identity Scale. All eight questions

appeared in the VOT survey. The additional questions addressed: (a) the respondent's anticipated involvement as an adult in each ethnic group, (b) family traditions, (c) language use, and (d) religious/spiritual beliefs.

The first of the additional questions was a variation of one of the original four questions. The second had appeared in Oetting and Beauvais's (1990) original presentation as a validity check, not as part of the original scale (Items 3 and 1, respectively, in Tables 3a and 3b). The survey repeated these questions for each of the same six categories described above. The latter pair of additional questions addressed language use and spiritual practice (Appendix 3, survey version 1, p. 7, questions 1 and 3). For all questions, the response alternatives were from 1 ("rarely" or "not at all") to 4 ("always" or "a lot").

Moran et al. (in press) described a confirmatory factor analytic study of the 8-question scale. They drew data from the first wave of the VOIT study and included 1,592 Native American high school student respondents in their analyses. For each question, they included only responses tapping Native and White identifications. The results showed that all but the language and spiritual beliefs items loaded on the appropriate factor. That is, for the other six items a two-factor solution best accounted for the data. One factor contained only items related to Native identification and the second factor included only items relating to a White identity. The spiritual beliefs items did not display loadings greater than .30 on either factor. The Tribal language item loaded positively on the Native factor, but the English language item also loaded (negatively) on the same factor. Therefore, it appears that a six-item scale, dropping the

language and spiritual belief items would allow one to produce equivalent measures of both Native and Anglo identification.

Chapter 2 presented a definition of ethnic identity. This measure meets that definition well. For each ethnic identity, questions rely on respondents' subjective perceptions of the ethnic groups and of their identification with those. The questions tap participants' opinions of self and of their families. Respondents must decide what is a "Native way of life," for example, or what makes up Native traditions or practices. In this way, the measure avoids the trap of "counting" objective features of, say, cultural practice and then assigning respondents to a cultural identity based on some arbitrary cutoff score (e.g., the measure does not ask people about specific practices and then describe a person who does three Native practices as more strongly Native identified than a person who does only two Native practices). Instead, the measure asks respondents for their subjective perception of each ethnic group and their subjective perception of their identification with each group. Such subjectivity is the essence of identity generally, and ethnic identity, specifically.

Group-esteem. The third independent variable implied by the three-factor model is group-esteem, an adolescent's evaluation of her or his heritage ethnic group. There is no tradition of measuring group-esteem or group pride independently of ethnic identity (e.g., recall Bat-Chava and Steen's [1995] review, discussed in chapter 2). Nonetheless, one can imagine a person strongly identified with a minority group who also has a negative evaluation of, say, the group's public presentation or political strategies. That

is, a person might strongly feel her or himself to be part of a group and, simultaneously, negatively evaluate some aspects of the group as a whole.

Crocker and Luhtanen discussed the notion of group-esteem in the context of social identity theory (Crocker & Luhtanen, 1990; Crocker et al., 1994; Luhtanen & Crocker, 1991, 1992). They noted that researchers usually measure group-esteem as if it were a form of domain-specific self-esteem (i.e., investigators measure group-esteem as the individual's evaluation of self as a group member). Nevertheless, they argued, group-esteem and self-esteem could vary separately. Peoples' evaluation of themselves may be different from their evaluation of the groups (or collectivities) of which they are members. A distinction exists, for example, between "I think lawyers, as a group, are honourable people," and, "I think I am a good lawyer." The first reflects high esteem for the group; the latter reflects esteem for oneself as a group member. It would be easy to imagine that a person might endorse one statement and not the other.

To fill the gap in measurement of group-esteem, Luhtanen and Crocker (1992) assembled a "Collective Self-Esteem Scale" (CSES). They designed it to assess individuals' esteem for the groups or "collectivities" of which they are members. The CSES is a 16-item inventory that includes four subscales: (a) "private esteem," assessing one's personal judgements of how good one's social groups are (this is the construct I refer to as "group-esteem"); (b) "public esteem," an individual's assessment of how others see the groups of which she or he is a member; (c) "importance of identity," the importance of group identity to oneself; and, (d) "membership esteem," tapping the traditionally measured assessment of self as a member of one's group. Table 4a presents

the items for the private esteem/group-esteem subscale. The other subscales' items appear on p. 15 of the survey, version 1 (Appendix 3).

In their first presentation of the scales, Luhtanen and Crocker (1992) did not specify which social groups respondents should consider in answering the questions. Questions tapped evaluation of generic social groups (e.g., "I feel good about the social groups I belong to"; Luhtanen & Crocker, 1992, p. 305). Internal consistency statistics for the four subscales were adequately strong (i.e., standardized alphas ranging from .73 to .86). Subscale scores were positively correlated with the Rosenberg Self-esteem scale (group-esteem: $r = .33$; public: $r = .27$; identity: $r = .12$; membership: $r = .42$, all p 's < .01). Membership, the most individualistic subscale, showed the strongest correlation with self-esteem. The importance to identity subscale, the least evaluative of the subscales, showed the weakest relationship to self-esteem. Confirmatory factor analyses showed that a solution with four correlated factors best accounted for scale responses.

Luhtanen and Crocker (1992) showed public self-esteem scores were significantly negatively correlated with belief in discrimination based on sex ($r = -.13$) and on race ($r = -.31$). Group-esteem was also negatively associated with belief in discrimination based on race ($r = -.12$). Neither the membership nor identity subscales were related to belief in discrimination. These results suggest that if a person believes that groups are discriminated against by the public, they feel that the public holds their group in lower regard. This result is consistent with the validity of, at least, the public esteem subscale. However, since Luhtanen and Crocker (1992) did not specify which social groups respondents were to consider, these results are difficult to interpret.

In a second publication, they changed the scale to address racial group membership specifically (Crocker et al., 1994). That study's results were described in chapter 2, and more convincingly suggested the validity of the scales. For example, Black students were aware of public discrimination against Blacks, but they retained a generally positive private evaluation (i.e., group-esteem) of Blacks as a group. Moreover, Black adolescents' private evaluation of their group, their group-esteem, was related to their personal self-esteem, but their estimation of the wider public's regard for Blacks was not related to their self-esteem.

Two other studies, focussed on issues of ethnicity, have employed the CSES. Ethier and Deaux (1990) used three subscales of the CSES, public, group-esteem, and importance to identity, with a sample of Hispanic college students in the United States. They found strong internal consistency for the three subscales. They also found that the group-esteem and importance to identity subscales were positively associated with a separate scale measuring the importance to the respondents of their Hispanic identity. Ethier and Deaux (1990) concluded the scales were useful in the study of ethnic self-concept.

Lay and Verkuyten (in press) used the CSES with a group of foreign-born and a group of Canadian-born Chinese adolescents (mean age = 15.2 years). They found that only the membership and group-esteem subscales of the CSES had adequate internal consistency statistics in both groups (i.e., alphas ranging from .72 to .81). The public and importance to identity subscales had inadequate alphas, as low as .34 for these groups of adolescents. Lay and Verkuyten (in press) did, however, find that the

membership and group-esteem subscales were positively correlated with Rosenberg self-esteem scale scores for the foreign-born Chinese adolescents, but not for the Canadian-born Chinese adolescents. They also found that the foreign-born adolescents were more likely than their Canadian-born peers to mention spontaneously their ethnicity as part of their self-description. These results suggest that for individuals to whom ethnicity is salient, group-esteem, esteem for one's ethnic group, and personal self-esteem are positively related.

Taken together, these results suggest that the group-esteem subscale of the CSES would be a valid measure of the group-esteem construct in Native and in non-Native adolescents. The VOT survey included all 16 items of the CSES; the 4-item group-esteem scale is shown in Table 4a (chapter 5). The questions in the original CSES refer to "the social groups that I am a member of." The authors, however, were specific that one could alter the instrument to address specific groups, as they did in their second study (Crocker et al., 1994). In the VOT survey, questions referred to "my ethnic group or tribe." Half the items are positively-worded and half negatively-worded. Negatively-worded items are reversed for scoring.

Dependent Variables

Three measures of self-esteem formed the dependent measures. Researchers have developed several scales to measure self-esteem (Blascovich & Tomaka, 1991; Keith & Bracken, 1996; Simmons, 1987). Although theorists have understood self-esteem to be either an overall, global assessment of self, or a series of discrete evaluations (Harter, 1990c; Marsh & Hattie, 1996; Marsh, Smith, Barnes & Butler, 1983), empirical study

appears to support the contention that self-esteem is both (Harter, 1990c; Marsh & Hattie, 1996). Measures tapping both perspectives, therefore, may best illuminate youths' self-esteem.

Global Self-Esteem. The Rosenberg Self-esteem scale is a 10-item scale that assesses an individual's overall assessment of self (Rosenberg, 1965, 1979). Since its inception, it has become the single most widely-used measure of self-esteem (Blascovich & Tomaka, 1991; Keith & Bracken, 1996). Five of its items are positively-worded and five negatively-worded. In its original incarnation, the 4-point response scale ranged from strongly agree to strongly disagree. The Rosenberg Self-esteem scale shows both good internal consistency (i.e., standardized item alphas of .77 to .88) and good test-retest reliability (i.e., $r = .80$ to $.85$ over 1 to 2 weeks; Blascovich & Tomaka, 1991; Keith & Bracken, 1996; Rosenberg, 1979). Research has shown Rosenberg Self-esteem scale scores to predict (directly) positive outcomes such as school achievement and (inversely) negative outcomes such as depression (Blascovich & Tomaka, 1991; Keith & Bracken, 1996; Rosenberg, 1979). Therefore, the scale's reliability and validity, at least with non-Native youth, are well established. Investigators have employed the Rosenberg Self-esteem scale in several studies of ethnic identity and self-esteem (Phinney, 1991).

The VOT survey included the 10 items comprising the complete Rosenberg Self-esteem scale (see Table 5a in chapter 5 for a list of items). Responses were on a 5-point scale ranging from "disagree" through "neither agree nor disagree" to "agree." This alteration of the Rosenberg Self-esteem scale's response alternatives has become common practice (Blascovich & Tomaka, 1991).

Domain-Specific Self-Esteem. Researchers have identified several domains (see chapter 2) in which adolescents' self-esteem might vary (Harter, 1990b; Hoelter, 1986; Marsh, 1993). Selecting which domain-specific measure of self-esteem is most relevant to the situation of Native youth presents a challenge. Beiser and colleagues (1993) identified two dimensions most relevant to the academic success and mental health of Native children: academic competence and social competence -- assessments of one's ability to do well in the realms of academic tasks and social relationships, respectively. Using FOTS data, they demonstrated the scales' internal consistency and validity in a sample of grades 2 and 4 Native and non-Native children from four sites in the United States and Canada. They found internal consistency statistics for social competence to range from .60 to .78 in both Native and non-Native children and from .58 to .87 for instrumental competence. These statistics tended to be stronger for older children than for their younger counterparts. Beiser et al. (1993) also found expected positive correlations between the academic competence scale and standardized achievement test scores and teachers' ratings of academic competence. They did not report on similar criterion variables for the social competence scale.

The two dimensions identified by Beiser et al. (1993) are roughly analogous to the dimensions identified by Bienvenue (1978; see chapter 3). One dimension, academic competence, is more related to achievement motivation and, in Bienvenue's (1978) formulation, more related to Anglo cultural norms. Social competence is more directly relevant to Bienvenue's (1978) formulation of Native cultural norms. Therefore, these two dimensions would be significant domain-specific measures to tap relevant aspects of

Native students' self-evaluations at the interface of Native and dominant culture norms. However, although the scales have high face validity for use with adolescents, their psychometric properties have not been studied in such an older age group (i.e., adolescents).

The VOT survey included both measures, academic and social competence. The former is a 10-item scale and the latter a 9-item scale. For each question, respondents indicate how often they "have ever felt that way." For both scales, responses are scored on a 4-point scale from "never" to "most of the time" (see Tables 6a and 7a, chapter 5, for item descriptions).

Validation Measures

Studies with other groups have employed the independent variables used in this project. Those studies suggest the reliability and validity of the Orthogonal Identity Measures and the group-esteem scale (Crocker et al., 1994; Luhtanen & Crocker, 1992; Oetting & Beauvais, 1990) to be acceptably strong. The measures have not, however, been used with Navajo adolescents who made up most of the Native group in this study. Therefore, we included some measures in the survey to help to evaluate the validity of the measures in this sample.

The Multigroup Ethnic Identity Measure. The VOT survey included a second scale designed to measure ethnic identity, the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992). The MEIM was designed following a review of other measures of ethnic identity and incorporated concepts drawn from Erikson's (1950, 1968) formulations about identity development. Fourteen of its items addressed ethnic identity.

The scale is inadequate to be used as a primary independent variable in this study as it was designed to measure only one's identification with one's heritage culture. It does, however, offer a second measure to evaluate the validity of the primary measures of ethnic identity.

The MEIM begins with a filter question by which individuals label their ethnic group. The MEIM phrases each question to apply to the group identified (e.g., "I have a strong sense of belonging to my own ethnic group"; Phinney, 1992, p. 172). Thus, although the measure inquires about only a single ethnic identity, the measure is not specific to one ethnic group, and can be used with respondents of any ethnic group. The VOT survey included all 20 items of the MEIM.

Roberts, Phinney, Romero, and Chen (1996) administered the 14 ethnic identity items to 5,423 adolescents from several different ethnic groups in the US. They found that a two-factor solution accounted for item responses. The first factor included seven items (see Table 8a for items). The first three items tapped positive attitudes toward one's ethnic group; the last four accounted for a sense of belonging to the group. The factor was called "Positive Attitudes and Belonging." The second factor included five items about gathering information about one's ethnic group, and was called "Exploration" (see Table 8b). The final pair of items, the only ones reversed for scoring, loaded together on a third factor.

As the MEIM measures heritage ethnic identity, Native identification scale scores of Native youth should positively correlate with both of the MEIM scale scores. For Anglo youth, Anglo identification scale scores should correlate with the MEIM scale

scores. Group-esteem scores for both groups should be positively associated with scores on Roberts et al.'s (1996) Positive Attitudes and Belonging factor, but less strongly associated with the second factor, Exploration.

Single Items

Table 10 (in chapter 5) lists single items that address various aspects of ethnicity or cultural practice. The items are like those commonly used to measure ethnic identity (DeVos, 1995; Phinney, 1990). Two items address media use (Items 1 & 2 in table 10). The responses include one Navajo radio station and one Navajo newspaper easily available in the town. Use of Native-specific media should be associated with stronger Native identification. Three questions ask about the respondent's living place and ties to a reservation (items 3-5 in Table 10). One expects Native students, for example, who live outside the town on the reservation to have a stronger Native identification and a weaker Anglo identification, on average, than Native students living in the town. One expects Native students living in more traditional settings to live farther from roads. Living in more traditional settings is reasonably expected to be associated with stronger Native identity. Strong ties to a reservation are expected to be associated with stronger Native identifications. Item 6 addresses Endogamy/Exogamy (preference for marriage partners within or without one's own ethnic group), a common marker of "ethnic commitment" (DeVos, 1995; Yinger, 1985). Language use, participation in traditional practices, and subjective importance of those practices are all expected to be associated with stronger Native identifications (Table 10, Items 7 - 9).

The survey included additional measures that should be significantly associated with valid domain-specific self-esteem measures. Four items address academic orientation (items 10 - 13 in table 10). These should significantly correlate with the academic competence scale scores.

In addition to the single items shown in Table 10, Table 9a (chapter 5), shows 6-items of the Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988), a measure of subjectively assessed social support. Scores on this measure should correlate significantly and positively with FOTS Social Competence scale scores.

Procedure

Students completed the survey during homeroom period, the 90-minute first class of the day. Teachers supervised survey administration in their own classrooms. Twenty homeroom classes took part. During a meeting the day before the survey administration, teachers attended a training session. The purpose of the session was to ensure uniform administration of the survey. At the training session, teachers received a written copy of the directions for survey administration.

At the beginning of the homeroom session, teachers handed a survey booklet (Appendix 3) to each student in attendance. The teacher then directed the students' attention to the first page of the booklet. That page contained a description of the survey including its purpose and directions for completion. The teacher read the description to the students and asked them to read it themselves. Following that, the teacher asked all the students to complete the consent form (Appendix 1), as described earlier. Teachers

formulated alternative activities for any students unwilling to complete the survey. The students then completed the survey during the class period. A small minority of students who did not complete the survey booklet within the class period remained after class to complete it.

All students who signed a consent form and returned a questionnaire received a debriefing sheet. The debriefing sheet further explained the purpose of the study and offered telephone numbers of individuals and agencies at the school and outside the school in the town. The individuals and agencies identified had been advised of the survey and had agreed to talk with any students for whom the survey had engendered any sort of concern (its contents, with identifying information removed, are reproduced in Appendix 1). Students completing and returning a survey also received a \$5 gift certificate for a local department store.

Completed survey booklets were shipped back to Toronto. There, the data were double entered (i.e., entered twice, for verification) by a commercial data entry firm. Upon completion of that, I manually verified a randomly selected 10% of completed booklets against the data file. That process revealed only errors in spelling of open-ended variables in which students had written in some name or description.

Data Analysis Plan

Analyses of the data for this project are presented in three sections. The first section evaluates the validity of the ethnic groupings that form the basis of this project. Investigator-imposed categories were used to group individuals into ethnic categories. Those categories were described earlier. Research on similar categories has shown that

responses may vary, depending on the alternatives offered (Harris et al., 1993; Johnson, Jobe, O'Rourke, et al., 1997; Lieberman & Waters, 1993). Before asking respondents' categorical ethnic group membership, the survey presented an open-ended question, "What is your ethnic group or tribe?" To assess the validity of the categorical responses and, thus, the ethnic grouping used in this project, analyses compare open-ended and categorical responses.

The second phase of the analyses addresses the psychometric properties of the primary independent and dependent measures. Since most of the primary measures had been used with Anglo, but not Native students, in the second phase of the analyses, results for Anglos and for Natives are compared. The first part of the analyses focuses on the factor structure of the measures, the invariance of that structure between Native and non-Native students, and possible scale-item biases across groups. As discussed in that section, similar results for Native and Anglo students suggest comparable validity for the scales in both groups. The sections also presents the standard indices of internal consistency (Nunnally, 1978). Scale scores are calculated for each measure. Comparisons of ethnic identity scale scores, within and between Native and non-Native groups, evaluate the construct validity of the ethnic identity measures. Finally, tests of associations between independent and dependent measure scale scores and other indicators of the same constructs further assess the validity of the primary measures (Streiner & Norman, 1989).

The third phase of the analyses evaluates the study hypotheses among the Native students. To test the study hypotheses, zero-order correlations are calculated to test

separately the relationship of each independent variable to the dependent measures. This is followed by a set of regression equations including the three first-order effects and one interaction term. The hypotheses are tested, therefore, with hierarchical multiple regression procedures, including a final total of four predictor terms.

Power. Given the dearth of previous research in this field, it is difficult to estimate expected effect sizes based on existing results. The ubiquity and putative importance of the hypothesized link between ethnic identity and self-esteem in the literature on Native young people suggests that one expects at least a medium effect size in analyses of relationships between ethnic identity and self-esteem. Cohen (1992) described a medium effect size as “the average size of observed effects in various fields” (p. 156). To observe a medium effect with four predictors in a multiple regression equation with a power of 0.80 and an alpha level of 0.05 requires a sample size of 84 (Cohen, 1992). The sample of Native youth in this study well exceeds that number.

There are other considerations in such power estimates, especially in naturalistic studies. McClelland and Judd (1993) discussed the difficulty of detecting moderator effects (i.e., the hypothesized interaction term) in field studies. In experimental studies, an investigator can manipulate conditions so as to maximize the number of “jointly extreme” cases, individuals who are at the extreme ends of the distributions for all of the independent variables, in all of the combinations of interest. Such manipulation, in turn, maximizes the variability in the measures making up the interaction terms and thus maximizes the statistical power to observe such interactions. In contrast, in naturalistic (or field) studies such as this one, a source of difficulty is the relative lack of jointly

extreme values in the population and, therefore, in the elements making up the product term in the interaction.

In this study, we assembled a sample as large as possible with the resources available. Moreover, the setting, as described earlier, maximizes the anticipated variability in the independent measures, and thus maximizes the likelihood of observing jointly extreme cases. Nonetheless, McClelland and Judd's (1993) cautions imply the careful inspection of results rather than an over-reliance on traditional tests of significance to evaluate the "meaningfulness" of results (Cohen, 1992, 1994; McClelland & Judd, 1993; Pedhazur, 1982).

CHAPTER 5

Results

Study results are presented in three sections. The first section examines the validity of the strategy used to place respondents in ethnic categories. The second section investigates the measures used to operationalize the study constructs. It is separated into two parts. In the first part, three analytic strategies assess the “structure” of the scale measures, within and between the Native and Anglo groups. Native adolescents are the focus of the study, but most of the measures have been used with Anglo respondents more than with Native study participants, especially the Navajos who make up most of the Native group. Therefore, comparing Native and Anglo responses to scale items helps to evaluate whether the measures tap the same construct in each group. In the second part of the second section, associations between scale scores and other variables are presented, to investigate the construct validity of the measures. Each part of the second section presents analyses first for the independent measures and then for the dependent measures. Finally, in the third section, analyses are presented to address the study hypotheses.

Section 1: Ethnic Self-categorization

The purpose of this project is to investigate the relationship between ethnic identity and self-esteem among youth who belong to the ethnic category, “Native.” Thus, the project rests on the categorization of respondents. Survey respondents assigned themselves to ethnic categories using the set of imposed alternatives described in the methods chapter (i.e., Native American; Hispanic or Mexican American; Asian; White or

Anglo; Black or African American; and, other. Students marked as many categories as applied to themselves). Chapter 2 discussed the fallibility of investigator-imposed categories for identifying ethnic self-categorization (e.g., Aspinall, 1997; Harris et al., 1993; Lieberman & Waters, 1993; Nagel, 1995); imposed categories do not necessarily capture respondents' own self-labels. Therefore, initial analyses focus on the validity of the respondents' ethnic self-categorizations.

Before the survey asked them for their ethnic self-categorization, it asked students for their ethnic self-label. A question on the second page of the survey asked students to, "Please write the name of your ethnic group or tribe in the box" (Appendix 3; survey version 1, p. 2, question 6). By examining the concordance between ethnic self-categorization and ethnic self-labeling, I could evaluate whether the ethnic self-categorization question adequately reflected students' self-labels.

The response rate for the self-categorization question was high. Of the 362 students who returned a questionnaire, 360 assigned themselves to at least one ethnic category. Table 1 presents a summary of the categorical responses. Three-hundred forty-seven students provided an ethnic self-label, a subset of the 360 students who provided an ethnic self-categorization. The responses comprised 58 distinct labels. Some were variations of the same label (e.g., Native American, Nat Am, Native Am). The first column of Table 2 presents a list of the labels provided, with variations collapsed into single labels for economy of presentation. The number of variations for each label appears in parentheses in column 1 of Table 2. For example, "Navajo" and

“Navaho” are variants of the same label, so (2) appears following “Navajo” in column 1 of Table 2.

All 58 self-labels were presented to two independent raters, blind to the task’s purpose and to students’ self-categorizations (see Appendix 2 for the rating forms). Each rater assigned each label to an ethnic category. Raters used categories matching those used by the students, except that raters assigned multiple self-labels to a “mixed or combination” category. The categories were Native American; Hispanic or Mexican American; Asian; White or Anglo; Black or African American; mixed or combination; and, other (see Methods, chapter 4). Columns 3 and 4 of Table 2 present raters’ responses.

Raters’ assignments agreed for 52 of the 58 self-labels, representing an 89.7% rate of agreement ($Kappa = 0.85$, $p < .001$; a Kappa greater than .80 suggests good agreement; Cantor, 1996; Cohen, 1960). Therefore, raters were able reliably to assign the self-labels to ethnic categories. Of the six disagreements between the raters (highlighted by asterisks in column 5 of Table 2), two involved Native self-labels and two involved Anglo self-labels. To reach a final coding for each label, raters discussed disagreements to a consensus; the consensus codings appear in column 5 of Table 2.

To establish the validity of adolescents’ self-categorizations, cross-tabulations compared the ethnic category to which raters assigned the adolescents’ self-labels with the adolescents’ ethnic self-categorizations. Of 347 comparisons, 326 (94.0%) agreed, yielding an excellent Kappa of .90 ($p < .001$). This result shows that the ethnic

self-categorizations elicited using investigator-imposed categories validly represent respondents' ethnic self-labels, for most of respondents.

Nonetheless, for 21 of the 347 comparisons, self-labels and self-categorizations disagreed. Since more respondents provided ethnic self-categorizations than provided ethnic self-labels, we retained self-categorizations as the grouping variable. The nature of the disagreements between students' self-labels and their self-categorizations supported the propriety of this decision. That is, disagreements were not systematic enough to suggest some bias in the self-categorizations. For example, of two respondents who self-categorized as both Anglo and Hispanic, one self-labeled as White and one as Hispanic. Nine students who self-labeled as Navajo or Native American each endorsed two ethnic categories (Native and Hispanic for four, and Native and Anglo for five). Of these respondents, each assigned their mother and father to a different ethnic category; the respondents were of mixed heritage. Their self-categorizations encompassed each element of their mixed heritages (i.e., each parent represented one or more categories to which respondents' assigned themselves). Other disagreements reflected either that raters did not assign the self-label to an ethnic category (e.g., raters assigned "Human," a label used by two students, one self-categorized as Native and one as Anglo, to the "other" category), or a possible error in self-categorization (e.g., one student who self-labeled as White endorsed all of the ethnic categories, including "other").

Table 2: Respondent Ethnic Self-labels & Rater's Coding of Ethnic Self-labels

Self-label (variations ^a)	Rater			Self-label (variations ^a)	n ^b	Rater		
	n ^b	A	B			Conc. ^c	A	B
DINE	2	Native	Native	WHITE (5)	93	Anglo	Anglo	Anglo
DINE / NAVAJO (3)	3	Native	Native	BLACK	1	Black	Black	Black
HOPI / ESKIMO	1	Native	Mixed	HISPANIC	6	Hispanic	Hispanic	Hispanic
HOPI / NATIVE AMERICAN	1	Native	Native	MEXICAN AMERICAN	2	Hispanic	Hispanic	Hispanic
HOPI / NAVAJO	1	Native	Mixed	ANGLO / NAVAJO	2	Mixed	Mixed	Mixed
INDIAN	3	Native	Native	HISPANIC / WHITE	1	Mixed	Hispanic	Mixed ^d
NATIVE AMERICAN (3)	38	Native	Native	INDIAN / MEXICAN	1	Mixed	Mixed	Mixed
NATIVE AMERICAN / NAVAJO (9)	14	Native	Native	MEXICAN / ANGLO	1	Mixed	Hispanic	Mixed ^d
NATIVE AMERICAN / SIOUX	1	Native	Native	MULATTO	1	Mixed	Mixed	Mixed
NAVAJO (2)	103	Native	Native	NATIVE AMERICAN / WHITE	1	Mixed	Mixed	Mixed
NAVAJO / SOUTHERN UTE	1	Native	Native	NAVAJO / HISPANIC	1	Mixed	Mixed	Mixed
AMERICAN	1	Anglo	Anglo	NAVAJO / MEXICAN	1	Mixed	Mixed	Mixed
ANGLO	37	Anglo	Anglo	NAVAJO / WHITE	1	Mixed	Mixed	Mixed
ANGLO / WHITE (3)	6	Anglo	Anglo	SAMOAN / ITALIAN	1	Mixed	Mixed	Mixed
ARIAN (2)	2	Anglo	Anglo	WHITE / HISPANIC	1	Mixed	Mixed	Mixed
CAUCASIAN (2)	10	Anglo	Anglo	WHITE / HOPI / SIOUX	1	Mixed	Mixed	Mixed
CAUCASIAN / WHITE (2)	3	Anglo	Anglo	HUMAN	3	Other	Anglo	Other ^d
CREAM OF WHEAT	1	Anglo	Anglo	ITALIAN AMERICAN	1	Anglo	Other	Other ^d

Notes: ^a variations include reversing terms, abbreviations (e.g., Nat Am), misspellings (e.g. Caucasian)

^b number of respondents who used term or variation; ^c Consensus Coding

Section 2

This section of the analyses addresses the qualities of the measures used to operationalize the study constructs. The study questions address only the situation of Native youth. Nonetheless, this section, particularly the first part, involves comparisons between the Native and Anglo students' responses to the scale questions.

As discussed in chapter 3, researchers addressing Native youths' ethnic identity or self-esteem devote little effort to establishing the suitability of their measures. Most often, researchers use scale measures developed for dominant culture respondents. It is a mistake, however, to assume the cross-cultural applicability of such scales; a researcher must assess this directly (Beiser, Benfari, Collomb & Ravel, 1976; Canino & Bravo, 1994; Devins et al., 1997; Geisinger, 1994; Hui & Triandis, 1985; Long & Hamlin, 1988; Poortinga, 1989). The scales used in this study were developed from clear theoretical frameworks and some had been used in a wide range of settings (e.g., the Rosenberg Self-esteem scale). None, however, had been used extensively with Native adolescents. Therefore, efforts to evaluate the appropriateness of the scales used to operationalize study constructs logically precede the testing of study hypotheses. Analyses presented in two parts of section 2 address the suitability (i.e., cross-cultural generalizability, reliability, and validity) of the study measures.

Part 1: Study measures: Structure, Item Bias, and Internal Consistency

Analytic Strategy

In this part of section 2, analyses compare the "structure" of the study measures between Native and Anglo respondents. Scale measures operationalize hypothetical

constructs by measuring several items or “indicators” (Clark & Watson, 1995; Nunnally, 1978; Streiner & Norman, 1989). One assumes that scale items are related to the construct, and to each other, in a predictable manner. When using measures across groups, or with groups other than those for which they were developed, one also assumes that such interrelationships are comparable across groups. Comparable interrelationships imply “measurement invariance” (Reise, Widaman & Pugh, 1993; Watkins, 1989). Measurement invariance, in turn, implies that a measure operationalizes the same construct in each group. The analyses reported employ three strategies to examine the general assumption of measurement invariance. These strategies are Confirmatory Factor Analysis, mixed ANOVAs, and standard internal consistency analyses.

Confirmatory Factor Analysis. Confirmatory Factor Analysis (CFA) offers tools to assess how well empirically-observed interrelationships⁴ among a set of variables fit a hypothesized, pre-specified set of interrelationships among the variables (Bollen, 1989; Byrne, 1994; Hoyle, 1995; Reise et al., 1993; Schumacker & Lomax, 1996). The set of hypothesized relationships, the “model,” is specified *a priori*, based on theory and previous research. Therefore, substantive theory is a critical starting point for CFA. With a model specified, one assesses whether the observed variables fit together in the hypothesized pattern. Of particular importance for this project, CFA can also be used to test whether scale items are interrelated in the same way in two or more groups of respondents.

⁴ A correlation matrix, for example, describes a set of interrelationships among several variables.

In contrast to CFA, the common Exploratory Factor Analytic (EFA) approach begins with observations (i.e., empirical data). Then, one uses EFA to describe hypothetical factors that account for interrelationships among the observed variables (Briggs & Cheek, 1986; Comrey, 1988; Floyd & Widaman, 1995). Analyses describe how strongly items “load” on one or more hypothetical factors. EFA, however, offers no easily available strategies for assessing how well some pre-specified model accounts for the interrelationships among a set of variables. For example, with a previously developed single-dimension scale, one can hypothesize that all of the items relate to one and only one factor, that a “one-factor solution” would best account for the interrelationships between the observed variables. With EFA, one cannot test that hypothesis or index how well the observed data fits such a one-factor solution.

Unlike EFA, CFA begins with a model, a hypothesized factor structure. A model specifies relationships between observed variables (i.e., measured items), factors (i.e., hypothetical constructs), and error terms (i.e., measurement error; Byrne, 1994). The model links each observed variable with one or more hypothetical factors. A model may specify that factors are either correlated or uncorrelated with one another. Each observed variable is also associated with a unique error term. The model builder typically expects error terms to be uncorrelated (Nunnally, 1978). The researcher then tests how well this hypothesized model fits a set of observed item responses, an empirical data set.

In the same way that CFA allows one to assess how well observed data fit a specified model, it provides for assessment of how well a model simultaneously fits observed data drawn from two populations (Byrne, 1994; Joreskog, 1971; Reise et al.,

1993; Watkins, 1989). That is, one can ask, “Does a one-factor model account for these item responses in Native adolescents?,” and, also, “Does a one-factor model account for these item responses equally well in Native and Anglo adolescents?” An affirmative answer to the latter question shows that scale items interrelate the same way in both populations. This, in turn, is evidence that items tap the same construct in both groups (Devins et al., 1997; Drasgow & Kanfer, 1985; Watkins, 1989).

Statisticians have developed several indices to assess how well a set of observed variables fits a specified model. The first of these is the χ^2 statistic. The χ^2 tests the difference between the specified model and the observed data (Bentler, 1990; Joreskog, 1993; Tanaka, 1993). A statistically significant χ^2 value suggests that the observed data do not fit the model. In other words, if one fails to reject the null hypothesis, the data fit the model well. This standard for judging model fit is often too rigorous since design issues such as sample size strongly affect the statistic (Bentler, 1990; Joreskog, 1993; Tanaka, 1993). For example, as sample size increases, trivial deviations of the observed data from the model are likely to result in significant χ^2 values. In practical terms, reliance on the χ^2 statistic will usually result in rejection of the hypothesized model.

The χ^2 values are not useless, however. As one increases the number of parameters in a model (i.e., the specified interrelationships among model elements), the model becomes more complex. In CFA, as in theory-building, one prefers simpler models to more complex models; if adding complexity does not improve model fit, a researcher should eschew the addition of parameters. A researcher can use the χ^2 values to assess the incremental fit of more complicated models over simpler models; models

that fit well will have lower χ^2 values than models not fitting as well (Anderson & Gerbing, 1988). If the addition of parameters does not lead to significant decreases in the χ^2 value, the parameters should not be added.

To ameliorate the known shortcomings of the χ^2 statistic, statisticians have devised many “fit indices.” No absolute standard has emerged to guide selection of the “best” index (Bentler, 1990; Joreskog, 1993; Schumacker & Lomax, 1996; Tanaka, 1993). A consensus suggests that one should not rely on any single fit index. Instead, model evaluation should utilize multiple indices, drawn from different “families” (Bollen & Long, 1993). Based on recommendations in the literature (Byrne, 1994; Marsh, Balla & McDonald, 1988; Wheaton, 1987), I selected three indices, each from a different family.

The Goodness of Fit Index (GFI), among the first fit indexes developed, represents one family of relative fit indices. The GFI assesses how much better a specified model fits the observed data, relative to a “baseline” of no model at all (Joreskog, 1993; Joreskog & Sorbom, 1988). The GFI’s hypothetical baseline model would not be of theoretical interest as it suggests no underlying factor structure. The baseline model is simply an arbitrary starting point for model evaluation. The GFI typically varies between zero and one. Higher GFI values suggest better model fit than low GFIs. The GFI varies inversely with sample size, but it is not affected by the number of parameters in the model (i.e., hypothesized connections between elements; Bollen, 1989; Marsh et al., 1988). In contrast, the Adjusted Goodness of Fit Index (AGFI), another commonly-used index from this family, is affected by both sample size

and the number of parameters in the model (Bollen, 1989). As a result, the AGFI is a more conservative measure than the GFI. In CFA, small samples are those less than 100 (e.g., Bentler & Chou, 1987); in the context of CFA, this project's sample is not too small, but it is not generously large. Therefore, I deemed the AGFI too conservative and chose the GFI instead. Although cutoff values for the GFI have not been set forth, researchers often apply an arbitrary cutoff of .90 to this index.

The Comparative Fit Index (CFI) is from a different family of relative fit indices. It assesses the fit of the observed data in comparison to a hypothetical baseline that associates each measured variable with its own factor. As with the GFI, higher CFI values represent better model "fit" than do lower values. Typically, the CFI varies between zero and one, with values exceeding .90 accepted as suggesting good fit (Bentler, 1990; Byrne, 1994). Monte-Carlo simulation studies show the CFI is less subject to the influences of sample-size than other indices from this family (e.g., Bentler's [1990] Normed Fit Index).

The Root Mean Squared Error of Approximation (RMSEA) estimates not relative fit, as with the CFI and GFI, but relative lack of fit. Therefore, researchers prefer lower values for the RMSEA to higher values. The RMSEA evaluates lack of model fit by comparing the observed model with a hypothetical population distribution of parameter values (i.e., a χ^2 distribution; Browne & Cudeck, 1993). Suggested values for the RMSEA are .05 to connote a close fit between the model and the observed data, .08 to indicate an acceptable fit, and values greater than .10 to imply lack of fit between the data and model (Browne & Cudeck, 1993). As it evaluates the degree of misfit in

comparison to a population distribution rather than a baseline model formulated from the observed data, measurement error affects the RMSEA more than other indices. The RMSEA is the only commonly used, well described index of this family (Arbuckle, 1997; Browne & Cudeck, 1993).

The suggested values for each index are to be understood as guidelines, not as absolute cutoffs (Bentler, 1990; Browne & Cudeck, 1993; Byrne, 1994; Hoyle, 1995; Tanaka, 1993). In the same way that researchers bemoan the reification of an alpha level of .05 to denote what is “significant” and what is not (Borenstein, 1994; Cohen, 1994; Lane & Dunlap, 1978), developers of CFA discourage over-reliance on arbitrary cutoff values to assess model fit (Bollen, 1989; Hoyle, 1995; Wheaton, 1987). They also discourage reliance on single fit indices (Bollen, 1989; Hoyle, 1995). Instead, consistency of values across fit indices is to be used to assess model fit.

For each scale employed in this study, CFA results, generated using AMOS (Arbuckle, 1997), assess how well Native adolescents’ scale-item responses fit a hypothesized factor structure. Analyses index how well Anglo adolescents’ responses fit the same model. Finally, in the key step, simultaneous CFA analyses with Native and Anglo respondents assess how well the same factor structure fits for the two groups. The logic for these analyses differs slightly for the independent and dependent variables, and is described under the appropriate subheading.

Item Bias. CFA is a powerful tool for evaluating the overall fit among a whole set of measured items and hypothetical constructs or factors, both within and between groups. As a complementary strategy, item by item analyses can be used to detect

item-level biases between groups. Anastasi (1988) suggested conducting mixed ANOVAs, with group as a between-subjects factor and scale items as repeated measures, to explore item-level biases. Considering a set of scale items completed by two groups of individuals (e.g., Natives and Anglos), a statistically significant main effect for group merely shows that, across all the items, the groups differ in mean item response. A significant main effect for items merely says that, on average, some items generate more extreme responses than others. A significant interaction between groups and items, however, suggests that some items generate different patterns of responses between the groups than other items.

Particularly with samples the size of this project's or larger, this test can be very sensitive. A significant interaction term, therefore, suggests item-level difficulties, but does not necessarily imply meaningful or important item biases between groups. Instead, a statistically significant group by item effect militates the examination of item means and confidence intervals, to isolate the source, if any, of such item-level biases between groups.

Internal Consistency. Standard psychometric analyses include the calculation of internal consistency statistics, at the item and at the scale level (Anastasi, 1988; Cronbach, 1951; Nunnally, 1978). Corrected item-total correlations measure the association between individual item scores and scale scores, the latter corrected for the deletion of the item being examined. Excessively high item-total correlations suggest item redundancy and excessively low correlations suggest a high degree of measurement error, or irrelevance of the item to the construct being measured. Moderate item-total

correlations (e.g., between .3 and .7) are desirable (Clark & Watson, 1995; Streiner & Norman, 1989).

Coefficient alpha (Cronbach, 1951) is a measure of the overall internal consistency of a set of scale items. It varies between zero and one. Alpha values as low as .50 have been deemed acceptable for research purposes (Nunnally, 1978), but such values suggest a high degree of measurement error in one's instrument; measurement error decreases both the accuracy of measurement and the power to detect existing relationships. Therefore much higher alpha values, .80 or .90, are desirable.

Scale Means. In the following section, the above strategies assess the structure of scale measures. For each measure, following the assessment of structure and internal consistency, scale scores are calculated.

Analyses: Independent Variables

Analyses compare the responses of Native and Anglo adolescents for each of the three independent variables, Native identification, Anglo identification, and group-esteem. Discussion presented in chapter 2 suggests that each construct should be more salient to Native than to Anglo students. They should, however, be the same constructs for both groups.

Regarding the ethnic identity measures, in this sample, Anglo identification, particularly, should be the same construct for Native and for Anglo students, according to the three-factor model presented in chapter 2. That is, both Native and Anglo adolescents may develop an Anglo ethnic identification because of being socialized into Anglo culture. Native identification, on the other hand, may not be the same in both

groups. Anglo youth are not socialized into Native culture, at least not in the same way Native youth are socialized into Anglo culture (see chapters 2 and 3).

The third independent variable, the group-esteem measure, has been used successfully with White, Black, Hispanic, Asian-American, and Chinese-Canadian respondents (Crocker et al., 1994; Ethier & Deaux, 1990; Lay & Verkuyten, in press; Luhtanen & Crocker, 1992), but not with Native adolescents. Therefore, comparison of the scale's properties between Anglo adolescents, representing a group with which the scale had been used, and Native adolescents would establish whether items were measuring the same construct in each group. As with Native identity, however, minority status may render esteem for one's ethnic group a different issue (at least, differentially salient) for Native (i.e., ethnic minority) youth than for Anglo (i.e., dominant culture) youth.

Ethnic Identity Measures

Confirmatory Factor Analysis/Native Adolescents. An initial CFA with Native youths' ethnic identity scale responses considered Native and Anglo identification scale items together (see Table 3a and 3b for the final items). The orthogonal model of ethnic identification implies that items addressing a single ethnic identification should load on a single factor of ethnic identity (e.g., Native identification items should load together on one factor of Native identification). It also suggests that items addressing one ethnic identification should not load on another ethnic identity factor (e.g., Native identification items should not load on an Anglo identity factor). Therefore, the CFA model specified a two-factor solution, with the factors set to be uncorrelated with each other.

The survey included eight items to tap Native and Anglo identification (i.e., a total of 16 items; see methods and survey version 1, pp. 7 - 8, Appendix 3). Moran et al. (in press), as discussed in chapter 4, found two of the items did not fit as predicted by the orthogonal model of ethnic identification. The problematic items address language and spiritual beliefs. An initial CFA with all eight items reproduced Moran et al.'s (in press) results. None of the fit indices met the suggested cutoff values (i.e., CFI = .81; GFI = .87; RMSEA = .11), although the values were close. More important, AMOS output (i.e., modification indices, see below) suggested cross-loadings of the language and spiritual belief items between the Native and Anglo identification factors, the pattern observed by Moran et al. (in press). Therefore, I discarded language and spiritual belief items, and re-ran the analyses.

The results for CFA of the six-item per factor, two-factor solution are shown in Table 3c. The model yielded a fit that met or approached the suggested cutoff for each fit index (GFI = .85; CFI = .92; RMSEA = .11; Table 3c, row 2). As well, the solution for the six-item per factor model did not suggest correlated items across factors.

The AMOS program generates “modification indices” (MI; Arbuckle, 1997). MIs estimate how much the χ^2 measure would improve if specified model parameters were “freed” (i.e., allowed to correlate). Byrne (1994) observed that a common finding with attitude scales overall -- and self-concept scales in particular -- is correlation between error terms associated with scale items. She suggested that a common and acceptable alteration is to allow some correlation between error terms in a model (Such a strategy does have detractors; correlated error terms, for example, may suggest some

method factor affecting measurement; Bollen & Long, 1993; Hoyle, 1995; Joreskog, 1993). Following Byrne's suggestion, I respecified the two-factor model for the Native students, with two pairs of error terms (as described in the notes to Table 3c) allowed to correlate. The resulting model, as shown along row 3, "Two-factor model (respecified)," in Table 3c, yielded values at or better than conventional cutoffs on all indices (GFI = .90; CFI = .96; RMSEA = .08), along with a significant change in χ^2 (i.e., $\Delta\chi^2 = 56.8$, $df = 2$, $p < .001$).

The original model, without correlated error terms, was close to the arbitrary cutoff values for the fit indices. Respecification of the model, which did not substantively alter it, allowed the fit indices to exceed the suggested cutoffs. Therefore, if one tolerates some deviation from the fit indices' suggested cutoff values, the results suggest acceptable fit for the two uncorrelated factors model. If one retains the arbitrary index values as absolute cutoffs, then minor respecification of the model allows it to exceed those values. In either case, the data yield a reasonable fit to the hypothesized orthogonal model.

Confirmatory Factor Analysis/Anglo Adolescents. When the same six-item per factor, two uncorrelated factors model was attempted with the Anglo adolescents' responses, the program would not generate a solution. Inspection of the Anglo students' item mean scores for the Native identification scale (shown in the column 5 of Table 3a) reveals a likely cause of this failure. The Anglo students' scores on the Native identification scale items showed little variation. Means near one (the lowest response possible for the scale) and narrow confidence intervals for each item suggest that most

Anglo adolescents did not endorse any Native identity items. Univariate measures of skewness and kurtosis (measures of the departure of a distribution from a “normal” or Gaussian distribution) exceeded values set forth by Curran, West, and Finch (1996) as likely to generate unreliable solutions (i.e., absolute values of skewness greater than 2 and absolute values for kurtosis greater than 7).

Overall, Anglo adolescents’ non-endorsement of Native identification item scores paralleled Weaver’s (1996) results for Native students’ non-Native, ethnic minority identification scores. Native youth in her study did not endorse items tapping such identities (see chapter 4). In the same way, the theory offers no reason to expect Anglo youth (i.e., members of the dominant ethnic group) to be socialized into, and thus develop an identification with, any minority ethnic group identity.

As described, inspection of Anglo respondents’ ethnic identification scale item scores suggested that difficulty in producing a CFA solution was a function of the Native identification items. Thus, Native items were not included and a one-factor solution for Anglo youths’ Anglo identification scale scores was specified. The initial model did not fit well, as shown in Table 3c (GFI = .78; CFI = .83; RMSEA = .31). Respecification of the model, to allow error terms associated with items 5 and 6 (see Table 3b) to correlate, generated a well-fitting solution (GFI = .96; CFI = .99; RMSEA = .09), despite some problematic skewness and kurtosis for the Anglo adolescents’ scores on the Anglo Identity scale (see Table 3b, column 5). The results for the CFA appear in Table 3c in the row, “One-factor (respecified).”

Overall, for the Anglo respondents, the results are in keeping with Phinney's (1989) observations about the difficulties inherent in measuring ethnic identity in dominant culture youths. The difficulty likely stems from the reduced salience of ethnicity among dominant culture youth as compare to their ethnic minority peers. Chapter 2 included a discussion of this issue.

Confirmatory Factor Analysis/Group Comparison. Analyses tested the one-factor Anglo identification scale model simultaneously for Native and Anglo students. If an Anglo Identification scale had a comparable factor structure for Anglo and for Native students, then one could argue that the measure was tapping the same construct for both groups of respondents. That is, one could begin to argue that the Anglo identification scores of Native youth represented a construct similar to that represented by the Anglo identification scores of Anglo youth.

A one-factor model of Anglo identification scores only was specified, with correlated error terms for items 2 and 3 and items 5 and 6 (i.e., reproducing the within groups analyses for Native and Anglo students, respectively). This model yielded a very close fit between the data for Native and Anglo youth (GFI = .94; CFI = .97; RMSEA = .09). Row 8 of Table 3c describes the results.

Item bias. As shown in the upper portion of Table 3d, no significant group by item interaction emerged for the Native identification item responses. For Anglo Identification scale responses, the group by item term approached statistical significance (i.e., $p = .052$). Table 3b shows the item means for the Anglo identification scale, along with 95% confidence intervals, for the Native and Anglo students (columns 2 and 3, and

5 and 6, respectively). Inspection of item responses suggested no significant variation in the pattern of group differences across the items. That is, no meaningful pattern of item bias is apparent.

Internal Consistency/ Native Identification Scale. For Native youths' Native identification scale responses, all items had strong item-total correlations. Column 4 of Table 3a shows these statistics. The overall alpha for the scale, .93, was excellent (seen in Table 3a in the row marked, "Statistics for scale").

For Anglo youth, the Native identification scale only barely met the loosest criteria for acceptable internal consistency ($\alpha = .51$; Table 3a). The low value is likely also a result of the limited variability of the scale items (Anastasi, 1988; Nunnally, 1978; Streiner, 1993; Streiner & Norman, 1989). As with Weaver's (1997) results, this finding lends credence to some implicit predictions of the three-factor model (see chapter 3 and discussion).

Internal Consistency/Anglo Identification Scale. For both Native and Anglo respondents, internal consistency statistics for the Anglo identification scale were excellent (alphas = .92 and .91, respectively). Columns 4 and 7 of Table 3b show the item-total correlation for Native and Anglo respondents, respectively.

Scale Means. For both the Native identification scale and the Anglo identification scale, I calculated scale scores as a mean of all items. Therefore, the scale scores varied between 1 and 4, with higher scores representing stronger ethnic identifications. Scale scores were calculated for respondents who had completed all

items. Tables 3a and 3b show the resulting sample means for each scale and each group, in the row marked, "Statistics for Scale."

A comparison between groups and between scales was conducted as a construct validation effort. All Anglo (i.e., dominant culture) adolescents are socialized into a dominant culture ethnicity, but not every Native youth is similarly socialized. Therefore, if the scales validly represent ethnic identifications, one expects the mean Anglo identification score for the Native students to be lower than that for the Anglo students. Similarly, the Native identification scale scores of the Native students should be higher than those of the Anglo students. Within groups, the mean Native identification score of the Native students should be higher than their mean Anglo identification score.

Results generally supported the predictions. A mixed ANOVA, shown in the upper part of Table 3e, compared Native and Anglo identification scale means between the Native and Anglo groups. The mixed ANOVA included only the subset of respondents who had completed both the Native identification scale items and the Anglo identification scale items (i.e., these groups were smaller than those shown in Table 3a and 3b; see Table 3e, notes). A statistically significant Ethnic Identification scale by Ethnic Group interaction term ($F(1,276) = 484.37, p < .001$) prompted a series of follow-up t -tests to isolate the source of the interaction. The results are summarized in the lower portion of Table 3e. Inspection along the rows of the lower portion of Table 3e shows that Native students had higher Native identification scores than Anglo students; Anglo students had higher Anglo identification scores than Native students. Inspection down the columns of Table 3e shows that, within groups, the means were each in the

predicted direction. Each group's mean own-group identification score (e.g., Native students' Native Identification score) was higher than their other-group identification score. The comparison, however, was statistically significant only for the Anglo students' scores.

Between groups t -tests were also conducted for the larger, full set of identification scale responses, as shown beneath the "Statistics for scale" in Table 3a and 3b. These comparisons yielded the same results as the equivalent comparisons done with the subset of respondents, as shown in Table 3e. Native students had higher mean Native identification scores than Anglo students. Native students had lower Anglo identification scores than Anglo students.

Table 3a: Native Ethnic Identification Scale

	Item Description	Group					
		Native (n = 159)			Anglo (n = 127)		
		Mean	95% Conf. Interval	Int. Con. ^a	Mean	95% Conf. Interval	Int. Con. ^a
1	Some families have special activities or traditions (such as holiday parties, special meals, religious activities, trips or visits). In your family, how many of these activities or traditions are based on: [*]	2.96	(2.80, 3.11)	.69	1.02 ^{*k}	(0.99, 1.04)	.02
2	Does your <u>family</u> live by or follow: [*]	3.01	(2.86, 3.16)	.83	1.03 ^{*k}	(0.99, 1.08)	.42
3	Do <u>you</u> live by or follow: [*]	2.96	(2.81, 3.11)	.82	1.04 ^{*k}	(0.98, 1.10)	.33
4	When you are an adult, how involved do you think you will be in: [*]	3.08	(2.93, 3.22)	.81	1.12 ^{*k}	(1.04, 1.19)	.24
5	When you are an adult, will you be a success in: [*]	3.03	(2.88, 3.18)	.78	1.07 ^{*k}	(1.01, 1.13)	.35
6	Is your family a success in: [*]	3.19	(3.04, 3.34)	.77	1.08 ^{*k}	(1.01, 1.15)	.26
		3.04	(2.91, 3.17)	.93	1.06 ^{*k}	(1.03, 1.09)	.51
		Statistics for Scale: $t(176.8) = 29.5, p < .001$					

Notes: Response Scale: 1: Not at All; 2: Not much; 3: Some; 4: A lot

^a Internal Consistency statistics: For items, item-total correlations; for scales, standardized item alphas

^{*} Univariate Skewness > 2; ^k Univariate Kurtosis > 7; ^{*} Native/Anglo item mean difference (t-test, $p < .001$)

Table 3b: Anglo Ethnic Identification Scale

Item Description	Group					
	Native (n = 154)			Anglo (n = 143)		
	Mean	95% Conf. Interval	Int. Con. ^a	Mean	95% Conf. Interval	Int. Con. ^a
1 Some families have special activities or traditions (such as holiday parties, special meals, religious activities, trips or visits). In your family, how many of these activities or traditions are based on: [*]	2.68	(2.50, 2.85)	.64	3.40	(3.23, 3.57)	.61
2 Does <u>your family</u> live by or follow: [*]	2.80	(2.64, 2.96)	.73	3.66 ^k	(3.53, 3.78)	.81
3 Do <u>you</u> live by or follow: [*]	2.92	(2.76, 3.07)	.79	3.64 ^a	(3.51, 3.76)	.82
4 When you are an adult, how involved do you think you will be in: [*]	2.80	(2.63, 2.96)	.82	3.66 ^a	(3.54, 3.78)	.77
5 When you are an adult, will you be a success in: [*]	3.05	(2.90, 3.21)	.76	3.73 ^{a,k}	(3.63, 3.84)	.73
6 Is your family a success in: [*]	2.99	(2.84, 3.15)	.83	3.69 ^a	(3.58, 3.81)	.79
Statistics for Scale:	2.87	(2.74, 3.01)	.92	3.63 ^a	(3.52, 3.73)	.91
Native / Anglo Scale mean comparison: $t(283.5) = 8.77, p < .001$						

Notes: Response Scale: 1: Not at All; 2: Not much; 3: Some; 4: A lot

^a Internal Consistency statistics: For items, item-total correlations; for scales, standardized item alphas

^a Univariate Skewness > 2; ^k Univariate Kurtosis > 7

^{*} Native/Anglo item mean difference (t-test, $p < .001$)

Table 3c: Ethnic Identification Scales: Confirmatory Factor Analyses

Model Description	Fit Indices				
	χ^2	df	GFI ^a	CFI ^b	RMSEA ^c
<i>Native (n = 149)</i>					
Null Model	1343.67*	66			
Two-factor model ^d	157.32*	54	.85	.92	.11
Two-factor model (respecified) ^e	100.54*	52	.90	.96	.08
<i>Anglo (n = 119)</i>					
Null Model (Anglo Scale Only)	612.37*	15			
One-factor	109.88*	9	.78	.83	.31
One-factor (respecified) ^f	15.65 [‡]	8	.96	.99	.09
<i>Group Comparison (Anglo factor only)</i>					
Null Model	1231.80*	30			
One-factor (Anglo scale only) ^g	56.21*	19	.94	.97	.09

Notes: ^a Goodness of Fit Index^b Comparative Fit Index^c Root Mean Squared Error of Approximation^d Factor 1: six Native identification items; Factor 2: six Anglo identification items^e correlated errors between item pairs: 4/5 (Native scale); 2/3 (Anglo scale)^f correlated errors between item pairs: 5/6^g correlated errors between item pairs: 2/3; 5/6[‡] p < .05; [†] p < .01; * p < .001

Table 3d: Ethnic Identification Scales: Item Bias

Native Identification Scale			
Source	<u>df</u>	<u>F</u>	<u>p</u>
<i>Between Subjects</i>			
Ethnic Group	1	710.36	<.001
Error	284		
<i>Within Subjects</i>			
Scale Item	5	4.17	<.001
Scale Item x Ethnic Group	5	1.55	.173
Error	280		

Notes: Native n = 159; Anglo n = 127

Anglo Identification Scale			
Source	<u>df</u>	<u>F</u>	<u>p</u>
<i>Between Subjects</i>			
Ethnic Group	1	75.29	<.001
Error	295		
<i>Within Subjects</i>			
Scale Item	5	9.07	<.001
Scale Item x Ethnic Group	5	2.22	.052
Error	291		

Notes: Native n = 154; Anglo n = 143

Table 3e: Ethnic Identification Scales: Mean Comparisons

Mixed ANOVA			
Source	df	F	p
Between Subjects			
Ethnic Group	1	115.06	<.001
Error	276		
Within Subjects			
Ethnic Identification Scale	1	398.77	<.001
Scale x Group	1	484.37	<.001
Error	276		

Ethnic Identification Scale	Group		t-test ^b
	Native (<u>n</u> ^a = 153)	Anglo (<u>n</u> ^a = 125)	
	<u>M</u> (<u>sd</u>)	<u>M</u> (<u>sd</u>)	
Native Identification	3.01 (0.82)	1.06 (0.18)	t(169.9) = 28.53*
Anglo Identification	2.88 (0.83)	3.66 (0.62)	t(273.7) = 8.91*

t-test ^c :	t(152) = 1.25	t(124) = 43.9*
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Notes: ^a ns are for respondents who completed both the Native and Anglo Identification scales. Therefore, they vary slightly from ns in Tables 3a & 3b

^b paired-samples t-test

^c independent samples t-test

* p < .001

Group-esteem Measure

Confirmatory Factor Analysis/Native Adolescents. Luhtanen and Crocker (1992)

found that a four-factor solution, with correlations allowed among all factors, best accounted for the 16 items of the Collective Self-esteem Scale (CSES). When that solution was attempted with Native adolescents' responses, the solution did not fit at all (GFI = .66; CFI = .70; RMSEA = .15). This was consistent with Lay and Verkuyten's (in press) results, which suggest problems with two subscales of the CSES when used with adolescents about the same age as those in this study (see chapter 4).

As only the group-esteem subscale was of direct interest in this project, a one-factor, four-item solution was specified. Table 4b reports the results of the analyses. Obtained values for the GFI (.97) and CFI (.95) exceeded suggested cutoffs and the χ^2 value (10.77), although statistically significant, was low. The RMSEA (.17) was poorer than desirable. This suggests that the one-factor model may have a larger than desirable error variance component. The pattern of values across the indices, however, suggested an acceptable fit.

Confirmatory Factor Analysis/Anglo Adolescents. As shown in Table 4b, an initial one-factor solution did not fit the observed item responses for the Anglo youths. Allowing error terms associated with the positively-worded items (items 1 and 3, Table 4a) to correlate, however, yielded an excellent fit according to the GFI (.98) and CFI (.97). The RMSEA (.20) remained higher than suggested, as with the Native youth. The similarity of these results, within the Native and Anglo groups, is in keeping with the

error variance interpretation of the elevated RMSEA value. As with the Native youth, the pattern of the fit indices suggested an acceptable fit to the data.

Confirmatory Factor Analysis/Group Comparison. With the same correlated error terms as for the Anglo youths (i.e., items 1 and 3, Table 4a), a one-factor solution simultaneously fit the Native and Anglo responses, by all indices (GFI = .97; CFI = .96; RMSEA = .09). The upper portion of Table 4b shows the results.

The RMSEA values for CFA within the Native and Anglo groups were higher than desirable. The between groups CFA, however, showed that the same model fit for the two groups. This, in turn, suggests that although the one-factor model may have a larger error variance component than desirable, it fits the data equally well for both groups of respondents. This is evidence that the four-item scale represents the same factor structure for both Native and Anglo adolescents.

Item bias. A mixed ANOVA with the four items of the group-esteem scale yielded a significant group by item interaction effect, as shown in the lower portion of Table 4b. Follow-up *t*-tests, summarized in Table 4a (see notes to Table 4a) showed that Native and Anglo responses did not differ for the negatively-worded items. The same analyses showed that positively-worded items yielded higher item scores for Native than for Anglo respondents. This suggests that there may be bias toward extreme responses for the positively-worded items among the Native students (of course, it may, in fact, be the same bias, manifest in the opposite direction, for the negatively-worded items). The use of negatively- and positively-worded items allows the bias to emerge, but may also help to limit its impact on group-esteem scale scores. In contrast to the CFA results,

mixed ANOVA results suggest caution in interpreting group-esteem, as measured by these items, as the same construct in Native and Anglo youth. Such differences may be related to differences in the salience of ethnic group membership to Native and Anglo youth (see chapters 2 and 6 for discussion of this issue).

Internal Consistency. Native and Anglo adolescents' responses on the group-esteem scale yielded both comparable item-total correlations and overall scale alphas (columns 4 and 7 of Table 4a). Item-total correlations were moderate and almost identical in size between the two groups for each item. This was observed despite the apparent group by item differences seen in the mixed ANOVA. Overall scale alphas, in the low .70s, are acceptable, but not ideal. The overall alpha values, lower than those for the ethnic identification scales, are consistent with the CFA results. With the CFA results, the slightly inflated RMSEA values were consistent with increased error of measurement. Lowered alpha values also suggest increased measurement error. Nonetheless, the observed alpha values for the group-esteem scale exceeded the minimum acceptable value for research instruments of .50.

Scale Means. Group-esteem scores were calculated as a mean of item responses for those respondents who completed all items. Mean scores varied between 1 and 7. Total sample numbers for the Native and Anglo groups, along with the scale means, are shown in Table 4a, along the row, "Statistics for scale." The Native mean score ($M = 5.79$) was significantly higher than the Anglo mean score ($M = 5.48$; $t(304) = 2.26$, $p = .025$). This is not as one would expect based on the conjectures about ethnic minority group members' "self-hate" described in chapter 2.

Table 4a: Group Esteem

Item Description	Group					
	Native (n = 162)			Anglo (n = 144)		
	Mean	95% Conf. Interval	Int. Con. ^a	Mean	95% Conf. Interval	Int. Con. ^a
1 I sometimes regret that I belong to the ethnic group or tribe I do. [†]	5.60	(5.31, 5.88)	.42	5.60	(5.32, 5.88)	.46
2 In general, I'm glad to be a member of my ethnic group or tribe. [†]	6.08	(5.88, 6.28)	.58	5.51	(5.22, 5.79)	.54
3 Overall, I often feel that my ethnic group or tribe is not worthwhile. [†]	5.38	(5.09, 5.67)	.54	5.56	(5.29, 5.82)	.47
4 I feel good about my ethnic group or tribe. [*]	6.09	(5.90, 6.28)	.58	5.24	(4.97, 5.52)	.58
Statistics for Scale:	5.79	(5.61, 5.97)	.75	5.48	(5.27, 5.68)	.72
Native / Anglo Scale mean comparison: $t(304) = 2.26, p = .025$						

Notes: Response Scale: 1: Strongly Disagree; 2: Disagree; 3: Disagree Somewhat; 4: Neutral; 5: Agree Somewhat 6: Agree; 7: Strongly Agree; [†] Reversed for Scoring;

^a Internal Consistency statistics: For items, item-total correlations; for scales, standardized item alphas

^{*} & [†] Native/Anglo item mean difference (t-test, [†] $p < .01$; ^{*} $p < .001$)

Table 4b: Group Esteem: Confirmatory Factor Analyses and Item Bias

Confirmatory Factor Analysis					
Model Description	Fit Indices				
	χ^2	<u>df</u>	GFI ^a	CFI ^b	RMSEA ^c
<i>Native (n = 162)</i>					
Null Model	177.14*	6			
One-factor	10.77†	3	.97	.95	.17
<i>Anglo (n = 144)</i>					
Null Model	177.23*	6			
One-factor	45.18*	2	.88	.75	.39
One-factor (respecified) ^d	6.43‡	1	.98	.97	.20
<i>Group Comparison</i>					
Null Model	354.37*	12			
One-factor ^d	17.40†	5	.97	.96	.09
Mixed ANOVA					
Source		<u>df</u>	<u>F</u>	<u>p</u>	
<i>Between Subjects</i>					
Ethnic Group		1	5.10	.025	
Error		304			
<i>Within Subjects</i>					
Scale Item		3	3.16	.025	
Scale Item x Ethnic Group		3	8.93	<.001	
Error		302			

Notes: ^a Goodness of Fit Index^b Comparative Fit Index^c Root Mean Squared Error of Approximation^d correlated errors between item pairs: 1/3

‡ p < .05; † p < .01; * p < .001

Summary

The purpose of these analyses of the independent variables was to assess whether the measures tap the same constructs in Native and Anglo respondents. The Native identification scale did not. The apparent reason for this (i.e., limited variability among the Anglo students' responses) is in keeping with the predictions of the three-factor model. There is no reason to believe that Anglo students would be socialized into, and thus develop an identity based on, Native culture. Additional analyses, however, did suggest that the Native identification scale, for the Native respondents, formed a strongly internally consistent scale.

In contrast to the results for the Native identification scale, a one-factor model of the Anglo identification scale fit both groups' item responses. This is evidence that the scale taps the same construct in both groups. The internal consistency analyses also suggested the Anglo identification scale to be a reliable measure.

Overall, analyses of the group-esteem scale suggest that it also tapped the same construct in both groups. Other analyses of the group-esteem measure, however, suggested it is not an ideal measure. There was evidence of item-bias between groups and a suggestion of a larger-than-desirable measurement error component. Although it was not ideal, analyses suggest that the group-esteem scale is an adequate measure of the group-esteem construct.

Analyses: Dependent Variables

Comparisons of Native and Anglo adolescents' responses on each of the dependent variable scales were undertaken according to the same logic underlying comparison of their responses to the group-esteem scale. Comparison of the dependent variables' structure between the Native and Anglo groups is a step in establishing the measures' cross-cultural validity, establishing that they tap the same constructs in Native and Anglo adolescents. The Rosenberg Self-esteem scale, for example, has been used extensively with non-Native adolescent respondents, but not with Native respondents. If the same factor structure accounts for the observed item responses for Natives and Anglos, one gains confidence that the scale is measuring the same global self-esteem construct in the two groups (e.g., Watkins, 1989).

Unlike the Rosenberg Self-esteem scale, the two FOTS domain-specific self-esteem scales had been used with Natives. The previous respondents, however, were children, not adolescents. The measures have high face validity (see column 1 of Tables 6a and 7a), and panels of Native community leaders had vetted each scale's items for appropriateness (Beiser et al., 1993). Comparison of the measures between Native and Anglo students would evaluate whether the measures tapped the same construct in each group and not a construct idiosyncratic to one or the other group. For each measure, a one-factor structure was predicted.

Rosenberg Self-esteem Scale

Confirmatory Factor Analyses/Native adolescents. Rosenberg designed his self-esteem scale to tap a single dimension of global self-esteem (Keith & Bracken, 1996; Rosenberg, 1965, 1979). Five of the items are positively-worded and five negatively-worded, the latter items reversed for scoring (see column 1 of Table 5a). An initial CFA specified a one-factor model. The one-factor model did not fit well for the Native students responses, on any index (GFI = .77; CFI = .73; RMSEA = .17). Row 2 of Table 5b summarizes the results.

Since Rosenberg developed it, some researchers have reported that the negatively-worded and the positively-worded items form two separate, although correlated, factors (Marsh, 1996; Rosenberg, 1979). Therefore, a second CFA specified a two-factor solution, with all positively-worded items on one factor and all negatively-worded items on the second factor. The two factors were themselves set to be correlated. For each index, the two-factor model represented a good fit to the data (GFI = .92; CFI = .93; RMSEA = .08; Table 5b, row 3).

Despite the fit of a two-factor solution, researchers typically use the Rosenberg Self-esteem scale as a single, unitary scale (Blascovich & Tomaka, 1991; Keith & Bracken, 1996). Previous research (e.g., Marsh, 1996; Rosenberg, 1986) has investigated the two-factor model. The question has been whether the two factors represent substantively different types of self-esteem or are simply a function of method factors (i.e., positively- versus negatively-worded items). If the former, then using the items to form a single scale would be unwarranted; if the latter, the single scale approach would

be supported. The evidence appears to suggest that method factors account for the two-factor structure (Marsh, 1996). Therefore, in this project, the Rosenberg Self-esteem measure is used as a single scale.

Confirmatory Factor Analyses/Anglo adolescents. Analyses specified the same models for the Anglo respondents as for the Native respondents. As with the Native adolescents, the one-factor model did not fit the data well, but the two-factor model yielded a good fit, on each index (GFI = .93; CFI = .96; RMSEA = .07; Table 5b, rows 5 and 6).

Confirmatory Factor Analyses/Group Comparison. Analyses tested the two-factor model simultaneously in the Native and the Anglo groups. As with the two correlated factors model within each group, the same model fit the data for Native and Anglo respondents when tested in both groups simultaneously (GFI = .91; CFI = .93; RMSEA = .06; Table 5b, row 8).

Item bias. A statistically significant group by item interaction in the mixed ANOVA (see the lower portion of Table 5b) led to an inspection of the between-groups differences for each item. For all items, both Native and Anglo adolescents answered toward the positive end of the scale (all item means were greater than 3, the neutral category). For 7 of the 10 items, Native item means were lower than Anglo item means. By *t*-test, this was statistically significant only for items 8 and 9. These results are summarized in Table 5a (see Table 5a, Notes). For one item, the two groups' responses were about equal (item 3). For two items (both negatively-worded), Native students' mean response was higher. These items were reversed for scoring so that higher means

for Native students imply they were more likely to reject such items, but the differences were not statistically significant. To summarize, across all the items, the two groups' means were close, suggesting no meaningful item bias between the two groups.

Internal Consistency. For both the Native and Anglo respondents, internal consistency statistics were excellent. Item-total correlations were of moderate size, and consistent within and across the groups. The overall scale alphas were high, in the .80s, for each group (Table 5a, columns 4 and 7). Such high internal consistency supports the strategy of using the Rosenberg Self-esteem measure as a single, unitary scale. Taken together, these results show that the Rosenberg Self-esteem scale is similarly structured in Native and Anglo adolescents, *prima facie* evidence for the scale's validity for use with Native adolescents.

Scale Means. Rosenberg Self-esteem scale scores were calculated as a mean of item responses for students who responded to all 10 scale items. Scores varied between 1 and 5. The mean score for the Native students was lower than that of the Anglo students, but not statistically significantly so (Table 5a, row marked, "Statistics for scale"). There was, however a trend toward lower scores for Native youth: the 95% confidence interval for the difference between the two groups' scores only just incorporated zero (i.e., -.306, .035).

Table 5a: Rosenberg Self-Esteem Scale

Item Description	Group					
	Native (n = 158)			Anglo (n = 145)		
	Mean	95% Conf. Interval	Int. Con. ^a	Mean	95% Conf. Interval	Int. Con. ^a
1 I feel that I have many good qualities. [‡]	4.11	(3.94, 4.29)	.56	4.34	(4.20, 4.48)	.59
2 I feel that I am a failure [†]	4.17	(3.99, 4.35)	.65	4.30	(4.11, 4.49)	.57
3 I take a positive attitude toward myself	4.18	(4.01, 4.34)	.64	4.18	(4.03, 4.33)	.72
4 I feel useless at times. [†]	3.57	(3.36, 3.78)	.61	3.50	(3.28, 3.72)	.55
5 On the whole, I am satisfied with myself.	4.09	(3.93, 4.26)	.49	4.13	(3.96, 4.30)	.60
6 At times I think I am no good at all. [†]	3.31	(3.10, 3.53)	.50	3.56	(3.34, 3.78)	.58
7 I am able to do things as well as other people.	4.23	(4.07, 4.38)	.48	4.34	(4.21, 4.47)	.59
8 I feel I do not have much to be proud of. [‡]	3.73	(3.53, 3.94)	.43	4.06	(3.84, 4.27)	.50
9 I feel that I am a person of worth. [†]	3.92	(3.74, 4.11)	.51	4.30 ^k	(4.15, 4.46)	.61
10 I wish I could have more respect for myself. [†]	3.05	(2.82, 3.28)	.26	3.01	(2.77, 3.25)	.60
Statistics for Scale:	3.84	(3.72, 3.95)	.83	3.97	(3.85, 4.10)	.87
Native / Anglo Scale mean comparison: $t(301) = 1.56, p = .120$						

Notes: Response Scale: 1: Disagree; 2: Somewhat Disagree; 3: Neither agree nor disagree; 4: Somewhat Agree; 5: Agree; [†] Items reversed for scoring; ^a Internal Consistency statistics: For items, item-total correlations; for scales, standardized item alphas; [‡] & [†] Native/Anglo item mean difference (t -test, [‡] $p < .05$; [†] $p < .01$) (t -test, $p < .05$) ^k Univariate Kurtosis > 7

Table 5b: Rosenberg Self-esteem Scale: Confirmatory Factor Analyses and Item Bias

Confirmatory Factor Analysis					
Model Description	Fit Indices				
	χ^2	df	GFI ^a	CFI ^b	RMSEA ^c
<i>Native (n = 158)</i>					
Null Model	585.45*	45			
One-factor	183.83*	35	.77	.73	.17
Two-factor ^e	69.76*	34	.92	.93	.08
<i>Anglo (n = 145)</i>					
Null Model	624.90*	45			
One-factor	122.65*	35	.84	.85	.13
Two-factor ^e	60.37 [†]	34	.93	.96	.07
<i>Group Comparison</i>					
Null Model	1210.38*	90			
Two-factor ^e	149.87*	76	.91	.93	.06
Mixed ANOVA					
Source	df	F	p		
<i>Between Subjects</i>					
Ethnic Group	1	2.43	.120		
Error	301				
<i>Within Subjects</i>					
Scale Item	9	32.04	<.001		
Scale Item x Ethnic Group	9	2.36	.014		
Error	293				

Notes: ^a Goodness of Fit Index^b Comparative Fit Index^c Root Mean Squared Error of Approximation^e Factor 1: all positively worded items; Factor 2: all negatively worded items; the factors were allowed to correlate[†] p < .01; * p < .001

FOTS Academic Competence Scale

Confirmatory Factor Analyses/Native adolescents. A one-factor model with no correlated error terms fit the Native adolescents' observed item responses for the FOTS Academic Competence scale. This was true for each of the three fit indices (GFI = .90; CFI = .95; RMSEA = .09), as seen in row 2 of Table 6b.

Confirmatory Factor Analyses/Anglo adolescents. A CFA employing the same one-factor model as for the Native adolescents was conducted for the Anglo adolescents' responses. Observed values for the fit indices were marginally, but not meaningfully, less compelling than for the Native students, as shown in Table 6b (GFI = .89; CFI = .94; RMSEA = .11). The overall pattern of results implied that the one-factor model accounted for the Anglo students' responses on the Academic Competence scale.

Confirmatory Factor Analyses/Group Comparison. The same one-factor model that accounted for the observed item responses of the Native and the Anglo respondents fit well when tested simultaneously in the Native and Anglo samples (GFI = .89; CFI = .94; RMSEA = .07). Row 6 of Table 6b summarizes these results.

Item bias. There was also a statistically significant interaction between the group and item factors. The F value for the interaction effect (2.47), as shown in the lower portion of Table 6b, was much smaller than that for either main effect (13.40 for group and 16.54 for item). Inspection of the means and confidence intervals again suggested no meaningful item bias between the groups. For all items, the Native means scores were lower than the Anglo means scores, but statistically significantly so only for the first eight items. See Table 6a (notes) for a summary of the univariate item comparisons.

Internal Consistency. Item-total correlations were high for most of the items, in each group (columns 4 and 7 of Table 6a). Only item 10 showed a low item-total correlation. For the whole scale, alphas were excellent (see “Statistics for scale” in Table 6a), suggesting a strongly internally consistent scale, for each group.

Scale Means. As with the other scales, FOTS Academic Competence scale scores were computed as a mean of item responses. Mean scores varied between 1 and 4. The mean score for the Native students ($\underline{M}_1 = 2.72$) was statistically significantly lower than the mean score for the Anglo youth ($\underline{M} = 3.02$), as shown in Table 6a.

Table 6a: FOTS Academic Competence Scale

Item Description	Group						
	Native (n = 159)			Anglo (n = 147)			
	Mean	95% Conf. Interval	Int. Con. ^a	Mean	95% Conf. Interval	Int. Con. ^a	
1 I am good at school work †	2.75	(2.62, 2.88)	.75	3.05	(2.91, 3.20)	.78	
2 I can do school work quickly*	2.57	(2.43, 2.70)	.75	3.00	(2.84, 3.16)	.84	
3 I can figure out answers in school†	2.76	(2.63, 2.89)	.76	3.03	(2.88, 3.19)	.84	
4 I feel I am just as smart as other kids my age*	2.70	(2.56, 2.85)	.73	3.21	(3.07, 3.36)	.83	
5 I am proud of my school work†	2.79	(2.64, 2.93)	.80	3.12	(2.96, 3.27)	.79	
6 I catch on in school quickly†	2.73	(2.59, 2.87)	.79	3.06	(2.90, 3.22)	.85	
7 I pay attention in class	2.88	(2.74, 3.02)	.67	3.00	(2.85, 3.15)	.62	
8 I can follow directions	3.06	(2.93, 3.19)	.75	3.24	(3.11, 3.38)	.73	
9 I have enough time to get my work done†	2.61	(2.46, 2.76)	.62	2.92	(2.76, 3.08)	.62	
10 People can depend on me	2.39	(2.23, 2.55)	.31	2.54	(2.34, 2.74)	.23	
Statistics for Scale:		2.72	(2.62, 2.83)	.92	3.02	(2.90, 3.14)	.93
Native / Anglo Scale mean comparison: $t(296.2) = 3.65, p < .001$							

Notes: Response Scale: 1: Never; 2: Sometimes; 3: Often; 4: Most of the time; * Items reversed for scoring

^a Internal Consistency statistics: For items, item-total correlations; for scales, standardized item alphas

† & * Native/Anglo item mean difference (t-test, † $p < .01$; * $p < .001$)

Table 6b: FOTS Academic Competence Scale: Confirmatory Factor Analyses and Item Bias

Confirmatory Factor Analysis					
Model Description	Fit Indices				
	χ^2	df	GFI ^a	CFI ^b	RMSEA ^c
<i>Native (n = 159)</i>					
Null Model	1010.46*	45			
One-factor	83.53*	35	.90	.95	.09
<i>Anglo (n = 147)</i>					
Null Model	1149.99*	45			
One-factor	101.26*	35	.89	.94	.11
<i>Group Comparison</i>					
Null Model	2160.51*	90			
One-factor	195.87*	79	.89	.94	.07
Mixed ANOVA					
Source		df	F	p	
<i>Between Subjects</i>					
Ethnic Group		1	13.40	<.001	
Error		304			
<i>Within Subjects</i>					
Scale Item		9	16.54	<.001	
Scale Item x Ethnic Group		9	2.47	.010	
Error		296			

Notes: ^a Goodness of Fit Index^b Comparative Fit Index^c Root Mean Squared Error of Approximation

* p < .001

FOTS Social Competence

Confirmatory Factor Analyses/Native adolescents. A one-factor model for the FOTS Social Competence scale yielded values below the suggested cutoff scores for each index (GFI = .86; CFI = .88; RMSEA = .16), as shown in row 2 Table 7b. When I respecified the model to allow correlated error terms for three item pairs, as shown in row 3 of Table 7b, GFI (.91) and CFI (.94) values rose beyond the suggested cutoff value of .90. The RMSEA (.12), however, remained greater than .10, suggesting some lack of fit between the model and the observed data. The respecified model also yielded a statistically significant change in the χ^2 value compared with the first one-factor model (i.e., χ^2 change = 50.92, $df = 3$, $p < .001$). Considered together, these results were consistent with a one-factor model to account for FOTS Social Competence scale responses among Native students. The inclusion of correlated error terms, however, does suggest caution in accepting the factor structure; replication is eventually required to cement confidence in the scales' structure (Wheaton, 1987).

Confirmatory Factor Analyses/Anglo adolescents. As with the Native adolescent item responses, a one-factor model with no correlated error terms generated less-than ideal fit indices (GFI = .81; CFI = .85; RMSEA = .18). The values of the fit indices for this model were similar in the Anglo sample as they had been in the Native sample, as revealed in Table 7b. Following an inspection of the modification indices, error terms associated with three item pairs were allowed to correlate (See notes, Table 7b). This respecified model yielded a similar pattern of fit indices as with the Native adolescents' responses, suggesting an acceptable fit between the data and model (GFI = .91;

CFI = .95; RMSEA = .11). Again, the respecified model yielded a statistically significant change in the χ^2 value compared with the first one-factor model (i.e., χ^2 change = 78.1, $df = 3$, $p < .001$). As they did for the Native students' responses, these results supported the one-factor model.

Confirmatory Factor Analyses/Group Comparison. A one-factor model with error terms of four item-pairs allowed to correlate (reproducing the patterns for the Native and Anglo models), as shown in Table 7b, simultaneously fit in the Native and Anglo samples, by all indices (GFI = .91; CFI = .95; RMSEA = .07). Although the fit within the groups was not ideal, the same factor structure accounted for the item responses in both groups.

Item bias. The mixed ANOVA for the Social Competence scale responses yielded no significant group effect, but did produce statistically significant item and item by group effects. The latter statistically significant term evidences a much smaller F value (3.77) than the former (26.29), as shown in the lower portion of Table 7b. As shown in Table 7a, Native students' mean item responses were lower than Anglo students'. The difference between the groups' mean item responses, however, was statistically significant, by t -test only for item 1 (Table 7a, notes). For that item, the Natives' mean score was higher than the Anglos' mean score. Removing that item, however, did not cause the interaction term to become non-significant. For all of the items, the means were very similar, all clustered toward the high end of the scale. Therefore, there was no strong evidence for a pattern of item biases between the groups.

Internal Consistency. The item-total correlations and the overall scale alphas were strong for both groups, as shown in column 4 and 7 of Table 7a. The results paralleled those for the FOTS Academic Competence scale.

Scale Means. Mean scores for the FOTS Social Competence scale varied between 1 and 4. The mean scores of the Native and Anglo students, as shown in Table 7a, were not different. The 95% confidence interval for the difference was nearly centered over the zero point (i.e., -.216, .125).

Summary

For each of the three self-esteem scales, the same model accounted for both Native and Anglo responses. Therefore, the measures appear to tap the same construct in each group. The Rosenberg Self-esteem scale and the FOTS Academic Competence scale each fit well, with no correlated error terms. The FOTS Social Competence scale, however, required respecification to generate an adequate fit. Of the three scales, therefore, it is most problematic. In no case, however, did the analyses suggest that any of the scales were inadequate: for each scale, internal consistency statistics were strong.

Table 7a: FOTS Social Competence Scale

	Item Description	Group					
		Native (n = 158)			Anglo (n = 144)		
		Mean	95% Conf. Interval	Int. Con. ^a	Mean	95% Conf. Interval	Int. Con. ^a
1	I have a lot of friends [†]	3.41	(3.27, 3.54)	.69	3.14	(2.99, 3.29)	.78
2	Other kids like me	3.16	(3.03, 3.30)	.79	3.19	(3.05, 3.32)	.75
3	I enjoy being with other people	3.38	(3.25, 3.51)	.75	3.45	(3.32, 3.58)	.78
4	I can make friends with people	3.33	(3.20, 3.46)	.80	3.30	(3.16, 3.44)	.71
5	I'm easy to like	3.11	(2.97, 3.25)	.79	3.17	(3.03, 3.32)	.76
6	I feel good if someone says nice things about me	3.40	(3.27, 3.53)	.64	3.53	(3.41, 3.66)	.64
7	I can keep a friend 6 months or more	3.61	(3.50, 3.72)	.62	3.61	(3.49, 3.73)	.69
8	I enjoy a good joke	3.62	(3.51, 3.73)	.56	3.70*	(3.60, 3.80)	.65
9	I am popular with kids my age	2.95	(2.80, 3.10)	.64	3.03	(2.88, 3.17)	.61
		Statistics for Scale: 3.33 (3.23, 3.43) .91 3.35 (3.24, 3.45) .92					
		Native / Anglo Scale mean comparison: $t(300) = 0.25, p = .803$					

Notes: Response Scale: 1: Never; 2: Sometimes; 3: Often; 4: Most of the time; * Items reversed for scoring

^a Internal Consistency statistics: For items, item-total correlations; for scales, standardized item alphas

[†] Native/Anglo item mean difference (t-test, [†] $p < .01$)

^{*} Univariate Skewness > 2

Table 7b: FOTS Social Competence Scale: Confirmatory Factor Analyses and Item Bias

Confirmatory Factor Analysis					
Model Description	Fit Indices				
	χ^2	<u>df</u>	GFI ^a	CFI ^b	RMSEA ^c
<i>Native (n = 158)</i>					
Null Model	891.21*	36			
One-factor	128.87*	27	.86	.88	.16
One-factor (respecified) ^d	77.95*	24	.91	.94	.12
<i>Anglo (n = 144)</i>					
Null Model	848.56*	36			
One-factor	146.82*	27	.81	.85	.18
One-factor (respecified) ^e	68.72*	24	.91	.95	.11
<i>Group Comparison</i>					
Null Model	1739.78*	72			
One-factor ^f	136.05*	52	.91	.95	.07
Mixed ANOVA					
Source		<u>df</u>	<u>F</u>	<u>p</u>	
<i>Between Subjects</i>					
Ethnic Group		1	0.06	.803	
Error		300			
<i>Within Subjects</i>					
Scale Item		8	26.29	<.001	
Scale Item x Ethnic Group ^g		8	3.77	<.001	
Error		293			

Notes: ^a Goodness of Fit Index^b Comparative Fit Index^c Root Mean Squared Error of Approximation^d correlated errors between item pairs: 1/2; 1/7; 7/8^e correlated errors between item pairs: 1/2; 4/5; 6/8^f correlated errors between item pairs: 1/2; 1/7; 4/5; 6/8; 7/8^g removal of item 1 reduces interaction term ($F(7,294) = 0.92, p = .495$)* $p < .001$

Analyses: Comparison Variables

The survey included two additional scale measures, for use in validating the independent measures. The first was the Multigroup Ethnic Identity Measure. The second was the Multidimensional Scale of Perceived Social Support.

Multigroup Ethnic Identity Measure

A two-factor model, comprising the 14-items of the Multigroup Ethnic Identity Measure (MEIM; Roberts et al., 1996) was assessed in both the Native and Anglo groups. As discussed in chapter 4, the MEIM factors were alternative measures of ethnic identity and group-esteem. Thus, comparison of the independent variables with the MEIM scale scores offered one avenue for establishing the validity of the main independent variables. Before making such comparisons, CFA was undertaken to assess the factor structure of the MEIM in the Native and Anglo groups.

Confirmatory Factor Analyses/Native adolescents. The initial CFA model specified two correlated factors for the items displayed in Tables 8a and 8b. For Native students, all fit indices closely approached, but did not exceed, the suggested cutoffs (GFI = .85; CFI = .88; RMSEA = .11; see Table 8c, row 2). Modification indices suggested that error terms associated with two pairs of items were correlated. In each case, however, one item of the pair was part of one factor, the other item part of the other factor. To assess how much better a fit would result, the model allowed these items to correlate. The justification was that the factors themselves were assumed to correlate, not to represent wholly independent dimensions. The respecified two-factor model

generated fit indices at or exceeding the suggested cutoffs for each index (GFI = .89; CFI = .93; RMSEA = .09, Table 8c, row 3).

As with the Native Identification scale, the original model was close; respecification allowed it to exceed arbitrary cutoffs. Therefore, if one tolerates deviation from the arbitrary cutoffs, the model fit well; alternatively, if one tolerates minor respecification of the model, it fits well. In neither case is the solution ideal, but neither does the evidence suggest rejection of the two-factor model.

Confirmatory Factor Analyses/Anglo adolescents. With the Anglo adolescents' responses, the two correlated factors model yielded good fit index values for each of the three indices (GFI = .91; CFI = .96; RMSEA = .07). These results are summarized in row 5 of Table 8c.

Confirmatory Factor Analyses/Group Comparison. For the Native students, the initial two correlated factor model had nearly fit the item responses and for Anglo respondents, the initial model did fit the data. Therefore, the two correlated factors model, with no correlated error terms, was tested in both groups simultaneously. All three indices yielded values near or exceeding suggested values, showing a good fit in both groups (GFI = .87; CFI = .91; RMSEA = .06). Therefore, it appeared that the two factors of the MEIM tapped the same constructs for both Native and Anglo adolescents.

Item bias. As shown in the upper part of Table 8d, for the Positive Attitudes and Belonging subscale (Factor 1) responses, no statistically significant group by item interaction effect emerged ($p = .073$). For the Exploration subscale (Factor 2), there was a significant group effect, a significant item effect, and a statistically significant group by

item interaction effect. Considering the Exploration subscale, the Native students' mean score was higher (statistically significantly so, by t -test, for each item; see Table 8b, notes). The magnitude of this difference was smaller or larger, depending on the item, but the pattern was consistent across items. Therefore, as with all save the group-esteem scale, there was no evidence of meaningful item bias between the groups.

Internal Consistency. For both Native and Anglo respondents and for both the Positive Attitude and Belonging subscale and the Exploration subscale, item-total correlations and overall item alphas were good. The values are shown in columns 4 and 7 of Tables 8a and 8b in the row, "Statistics for scale." The overall scale alpha for Positive Attitudes and Belonging was .87 for Natives and .88 for Anglos. For the Exploration subscale, the alphas were .78 and .80 for Natives and Anglos, respectively.

Scale Means. For both MEIM scales, scale scores were calculated as a mean of item responses. Scores, therefore, varied between 1 and 4. As described in Tables 8a and 8b, for each scale, Native mean scores ($\underline{M} = 3.18$ and $\underline{M} = 2.82$) were statistically significantly higher than Anglo students' mean scores ($\underline{M} = 2.82$ and $\underline{M} = 2.27$). This result is in keeping with the supposed greater salience of ethnic identity among ethnic minority than among dominant culture youth.

Table 8a: Multigroup Ethnic Identity Measure: Factor 1 / Positive Attitudes & Belonging

Item Description	Group					
	Native (n = 152)			Anglo (n = 135)		
	Mean	95% Conf. Interval	Int. Con. ^a	Mean	95% Conf. Interval	Int. Con. ^a
1 I feel good about my cultural or ethnic background.	3.37	(3.22, 3.52)	.70	3.16	(2.97, 3.35)	.69
2 I have a lot of pride in my ethnic group or tribe and its accomplishments. [*]	3.24	(3.08, 3.39)	.63	2.79	(2.58, 2.99)	.73
3 I am happy that I am a member of the group I belong to. [†]	3.53	(3.40, 3.67)	.69	3.27	(3.10, 3.45)	.59
4 I feel a strong attachment towards my own ethnic group or tribe. [‡]	3.07	(2.91, 3.23)	.59	2.78	(2.59, 2.97)	.73
5 I have a strong sense of belonging to my own ethnic group or tribe. [‡]	3.11	(2.94, 3.27)	.74	2.81	(2.62, 3.01)	.66
6 I understand pretty well what my ethnic or tribal group membership means to me, in terms of how to relate to my own group and other groups. [†]	2.98	(2.82, 3.14)	.64	2.56	(2.36, 2.75)	.63
7 I have a clear sense of my tribal or ethnic background and what it means for me. [*]	2.99	(2.84, 3.15)	.57	2.40	(2.21, 2.59)	.57
Statistics for Scale:						3.18 (3.07, 3.30) .87 2.82 (2.68, 2.97) .88
Native / Anglo Scale mean comparison:						t(285) = 3.87, p < .001

See Table Xb for Notes

Table 8b: Multigroup Ethnic Identity Measure: Factor 2 / Exploration

	Item Description	Group					
		Native (n = 152)			Anglo (n = 135)		
		Mean	95% Conf. Interval	Int. Con. ^a	Mean	95% Conf. Interval	Int. Con. ^a
1	In order to learn more about my tribal or ethnic background, I have often talked to other people about my tribe or ethnic group.*	2.89	(2.73, 3.05)	.58	2.20	(2.02, 2.38)	.60
2	I have spent time trying to find out more about my own ethnic group or tribe, such as its history, traditions and customs.*	2.92	(2.76, 3.08)	.66	2.10	(1.93, 2.27)	.55
3	I am active in organizations or social groups that include mostly members of my own tribe or ethnic group.†	2.56	(2.40, 2.72)	.48	2.28	(2.09, 2.47)	.56
4	I think a lot about how my life will be affected by my ethnic group or tribe membership.*	2.78	(2.61, 2.95)	.48	2.30	(2.12, 2.49)	.61
5	I participate in cultural practices of my own group, such as special food, music, or customs.*	2.95	(2.79, 3.12)	.57	2.45	(2.26, 2.64)	.61
Statistics for Scale:		2.82	(2.70, 2.94)	.78	2.27	(2.13, 2.40)	.80
Native / Anglo Scale mean comparison: t(285) = 6.04, p < .001							

Notes: Response Scale: 1: Strongly Disagree; 2: Somewhat Disagree; 3: Agree Somewhat; 4: Strongly Agree

^a Internal Consistency statistics: For items, item-total correlations; for scales, standardized item alphas

†, † & * Native/Anglo item mean difference (t-test, † p < .05; † p < .01; * p < .001)

Table 8c: Multigroup Ethnic Identity Measure: Confirmatory Factor Analysis

Model Description	Fit Indices				
	χ^2	df	GFI ^a	CFI ^b	RMSEA ^c
<i>Native (n = 152)</i>					
Null Model	864.73*	66			
Two-factor ^d	150.70*	53	.85	.88	.11
Two-factor (respecified) ^e	109.14*	51	.89	.93	.09
<i>Anglo (n = 135)</i>					
Null Model	740.01*	66			
Two-factor	82.71†	53	.91	.96	.07
<i>Group Comparison</i>					
Null Model	1604.72*	132			
Two-factor	246.09*	116	.87	.91	.06

Notes: ^a Goodness of Fit Index

^b Comparative Fit Index

^c Root Mean Squared Error of Approximation

^d The factors, specified as in Table X, were allowed to correlate

^e correlated error terms between item pairs: factor 1, 4/factor 2, 5; factor 1, 4/factor 2, 2

† p < .01; * p < .001

Table 8d: Multigroup Ethnic Identity Measure: Item Bias

Factor 1: Positive Attitudes & Belonging			
Source	<u>df</u>	<u>F</u>	<u>p</u>
<i>Between Subjects</i>			
Ethnic Group	1		
Error	285	14.97	<.001
<i>Within Subjects</i>			
Scale Item	6	25.73	<.001
Scale Item x Ethnic Group	6	1.95	.073
Error	280		

Factor 2 : Exploration			
Source	<u>df</u>	<u>F</u>	<u>p</u>
<i>Between Subjects</i>			
Ethnic Group	1	36.48	<.001
Error	285		
<i>Within Subjects</i>			
Scale Item	4	4.67	<.001
Scale Item x Ethnic Group	4	5.10	<.001
Error	282		

Multidimensional Scale of Perceived Social Support

The survey included the Multidimensional Scale of Perceived Social Support (MSPSS) as a check on the validity of the FOTS Social Competence scale. The MSPSS addresses a construct different from self-perceived social competence. I assumed, however, that perceptions of social support and self-perceptions of being able to do well in social situations (the construct tapped by the FOTS Social Competence scale) would be positively related. As with the MEIM, the MSPSS's structure was assessed before using it in other validity analyses.

Confirmatory Factor Analyses/Native adolescents. A one-factor model of the MSPSS was specified for the Native adolescents. As shown in Table 9b, all three fit indices suggested a lack of fit (GFI = .83; CFI = .77; RMSEA = .27). MIs suggested correlated error terms associated with items 3 and 4 and items 5 and 6. Allowing these error terms to be correlated yielded a very good fit across all of the indices (GFI = .99; CFI = 1.00; RMSEA < .01) and, as shown in Table 9b, a large, statistically significant, change in the χ^2 statistic.

Confirmatory Factor Analyses/Anglo adolescents. The CFA generated comparable results for the Anglo students. An initial one-factor model did not generate a good fit (row 5, Table 9b), but allowing the same error terms to correlate as with the Native youth yielded a good fit (row 6, Table 9b; GFI = .96; CFI = .98; RMSEA = .11).

Confirmatory Factor Analyses/Group Comparison. When the fit of the respecified model was tested between the Native and Anglo groups, the fit indices were uniformly excellent (GFI = .98; CFI = .99; RMSEA = .03; row 8, Table 9b).

Item Bias. The mixed ANOVA resulted in a significant effect for scale item, as shown in the lower portion of Table 9b, but no significant main effect for ethnic group, or for the group by item interaction term.

Internal Consistency. Item-total correlations were uniformly high in both groups. The overall scale alphas for the Native youth (.83) and for the Anglo youth (.85) were very strong. These results are detailed in Table 9a.

Scale Means. Since scale scores were calculated as a mean of item responses, the MSPSS scale scores varied between 1 and 4. There was no difference in the mean scores of the Native ($M = 3.86$) or Anglo students ($M = 3.92$) on this scale, as shown in Table 9a.

Table 9a: Multidimensional Scale of Perceived Social Support

Item Description	Group					
	Native (n = 159)			Anglo (n = 146)		
	Mean	95% Conf. Interval	Int. Con. ^a	Mean	95% Conf. Interval	Int. Con. ^a
1 There is a special person who is around when I am in need.	3.89	(3.68, 4.11)	.74	3.79	(3.56, 4.01)	.70
2 I have a special person who is a real source of comfort to me.	4.01	(3.81, 4.22)	.71	3.95	(3.74, 4.15)	.75
3 My family really tries to help me.	3.86	(3.65, 4.06)	.57	4.04	(3.86, 4.23)	.56
4 I can talk about my problems with my family.	3.33	(3.10, 3.56)	.57	3.54	(3.31, 3.77)	.48
5 I have friend with whom I can share my joys and sorrows.	4.08	(3.89, 4.26)	.57	4.14	(3.95, 4.32)	.63
6 I can talk about my problems with my friends.	3.98	(3.79, 4.17)	.49	4.10	(3.91, 4.28)	.65
Statistics for Scale:	3.86	(3.71, 4.01)	.83	3.92	(3.77, 4.08)	.85
Native / Anglo Scale mean comparison: $t(303) = 0.61, p = .545$						

Notes: Response Scale: 1: Never; 2: Sometimes; 3: Often; 4: Most of the time; * Items reversed for scoring

^a Internal Consistency statistics: For items, item-total correlations; for scales, standardized item alphas

Table 9b: Multidimensional Scale of Perceived Social Support: Confirmatory Factor Analyses and Item Bias

Confirmatory Factor Analysis					
Model Description	Fit Indices				
	χ^2	df	GFI ^a	CFT ^b	RMSEA ^c
<i>Native (n = 159)</i>					
Null Model	473.06*	15			
One-factor	114.72*	9	.83	.77	.27
One-factor (respecified) ^d	2.64	7	.99	1.00	<.01
<i>Anglo (n = 146)</i>					
Null Model	472.64*	15			
One-factor	88.42*	9	.83	.83	.25
One-factor (respecified) ^d	18.15 [‡]	7	.96	.98	.11
<i>Group Comparison</i>					
Null Model	945.71*	30			
One-factor ^d	24.64	19	.98	.99	.03
Mixed ANOVA					
Source		df	F	p	
<i>Between Subjects</i>					
Ethnic Group		1	0.37	.545	
Error		303			
<i>Within Subjects</i>					
Scale Item		5	16.72	<.001	
Scale Item x Ethnic Group		5	0.89	.488	
Error		299			

Notes: ^a Goodness of Fit Index^b Comparative Fit Index^c Root Mean Squared Error of Approximation^d correlated error terms between item pairs: 3/4; 5/6[‡] p < .05; * p < .001

Part 2. Scale Measures: Validity

In the first part of section 2, analyses were used to assess whether scales' structures were comparable for Native and Anglo respondents. For each scale (save the Native Identification scale), analyses suggested that measures did address the same construct in each group. In this section, the relationship of scale scores to other measures (see Table 10) is examined, to evaluate what construct the scales assess in each group. Most of the other measures address the construct of ethnic identity. As in the first part of section 2, I discuss the independent variables first, followed by the dependent variables.

Independent Variables

Ethnic Identity Measures

In part 1 of section 2, comparison of the mean ethnic identification scale scores (i.e., Native and Anglo identification scales) between the Native and Anglo groups provided initial evidence for the measures' construct validity. In this section, additional comparisons address the ethnic identity measures' construct validity.

As discussed in chapter 2, ethnic practices are different from ethnic identification, but the two constructs should be positively related; greater participation in ethnic practices should be associated with higher levels of ethnic identification. Therefore, comparing ethnic identification scale scores with other variables addressing ethno-specific practices helps to evaluate the validity of the measures. Most of the following comparisons are focused on the Native identification scale scores of the Native respondents.

Media Use. The survey included questions addressing media use. Native students who use Native-specific media (i.e., newspapers, radio stations) should have higher Native identification scores than Native students who only use non-Native media. One survey question asked which newspapers students read regularly (Table 10, item 1). The responses were divided into Native only (e.g., Navajo Times); Native and Anglo; and, Anglo only (e.g., USA Today). Of the total 164 Native respondents, 141 (86%) reported that they regularly read a newspaper (compared with 96, or 64%, of 150 Anglo respondents). Of the 141 Native readers of newspapers, 34 (24%) reported they read only Native papers, 68 (48%) read only Anglo newspapers, and 39 (28%) read both.

Oneway ANOVAs compared the ethnic identification scale scores of these three groups of Native students. The upper portion of Table 11 summarizes the results. For the Native identification scale scores, a statistically significant difference between the groups emerged ($F(2,134) = 3.27, p = .041$). Post-hoc tests (Scheffé's; Kirk, 1982) showed that readers of only Native papers had higher Native identification scale scores ($M = 3.30$) than readers of Anglo papers only ($M = 2.85$). Native students who read both Native and Anglo papers had mean Native identification scores not different from either of the other two groups ($M = 3.09$).

For the Anglo identification scale score of the three groups of Native readers of newspapers, no statistically significant effect emerged. The trend, however, mirrored that for the Native identification scale scores. That is, Native students who read Native newspapers only appeared to have lower mean Anglo identification scores ($M = 2.63$, see Table 11, row 2) than Native students who read only Anglo newspapers ($M = 3.03$).

The strategy used for newspaper reading was also used to address radio listening. Native students were far less likely, however, to listen to Native-specific radio than they were to read Native-specific newspapers. Of the 98 Native students who reported listening to a radio station, only 8 (8%) listened to a Native-specific station. Two of those 8 students also listened to an Anglo radio station. The ethnic identification scores of all 8 Native adolescents who listened to Native radio stations were compared with those of the Native students who listened only to non-Native radio stations. The results appear in the lower portion of Table 11.

Native students who listened to Native radio stations had higher Native identification scale scores ($\underline{M} = 2.75$) and lower Anglo identification scores ($\underline{M} = 2.54$) than their Native peers who listened only to non-Native radio stations ($\underline{M} = 2.09$ and 3.35 , respectively; see Table 11). The differences, however, did not meet conventional levels of statistical significance (observed p 's $> .05$, but $< .10$). There was no practical difference in the groups' mean group-esteem scores.

Overall, the results for media use supported the validity of the ethnic identification scales. Use of Native-specific newspapers and radio stations was associated with higher Native identification scale scores and lower Anglo identification scale scores than was use of dominant culture media sources. The number of Anglo students who used Native-specific media was too small to conduct analogous comparisons of their ethnic identification scores.

Place of residence. Two survey questions addressed the students' place of residence. The first asked whether the respondent lived in the town, on-reservation, or

out of town, off-reservation. Of the 164 Native respondents, 44 (27%) lived in town, 116 (71%) lived on the reservation, and 4 (2%) lived outside town, off-reservation.

Native students living in town were expected to have higher Anglo identification scores and lower Native identification scale scores than those living on the reservation.

T-tests compared the ethnic identification scale scores of the Native students living in town with those living on-reservation (the 4 Native students living outside town, off-reservation were not included because of the small cell n). Results, reported in the upper portion of Table 12, were in keeping with the validity of the ethnic identification scales. The mean Native identification scale score of the Native students living on reservation (M = 3.13) was higher than that of Native students living in town (M = 2.83; $t(153) = 2.02, p = .045$; row 1 of Table 12). As well, the mean Anglo identification score of town-dwelling Native students (M = 3.10) was higher the mean Anglo identification score of the Native students who lived on reservation (M = 2.78; $t(148) = 2.08, p = .040$).

Another question in the survey asked whether students' homes were within 100 feet of a paved road, within 100 feet of a dirt road, or farther than 100 feet from a dirt road. When I designed the question, I expected that living farther from a road would be associated with a greater likelihood of living in a more traditional Native setting, and thus, with higher Native identification scale scores and lower Anglo identification scale scores. Of the Native students, 112 (69%) lived within 100 feet of a paved road, 22 (14%) lived within 100 feet of a dirt road, and 27 (17%) lived farther than 100 feet from a dirt road.

As shown in the lower part of Table 12, Native students who lived farthest from a dirt road appeared to have higher Native identification scores ($\underline{M} = 3.19$) than those living closer to a paved road ($\underline{M} = 2.95$), but those living within 100 feet of a dirt road had the highest Native identification scores of all ($\underline{M} = 3.27$). Overall, however, the comparisons did not yield a statistically significant ANOVA result ($\underline{F}(2,154) = 1.94$, $\underline{p} = .147$). Considering the Native students' Anglo identification scale scores, the comparisons were in the order expected: those living farther from a dirt road had the lowest Anglo Identification scale scores ($\underline{M} = 2.43$) and those living closest to a paved road the highest Anglo Identification scale scores ($\underline{M} = 3.01$). The comparison was statistically significant ($\underline{F}(2,149) = 5.46$, $\underline{p} = .005$). The Anglo Identification scale scores of those living close to a dirt road ($\underline{M} = 2.71$) were statistically indistinguishable from the other two groups' scores, by post-hoc test. As with media-use, the small number of Anglo students living outside the town precluded comparable analyses of their ethnic identification scores.

A final question addressed place of residence in a different way. Students answered the question, "When you were growing up, did you live on or have close ties to a reservation?" on a 4-point scale from "not at all" to "a lot." The Native students' mean score on this item was 2.67 ($\underline{SD} = 1.09$). As shown in the first row of Table 13, under the column marked "6. TR," the correlation between this question and Native students' Native Identification score was .28 ($\underline{p} < .001$). The correlation between their response to this question and their Anglo Identification score was positive ($\underline{r} = .14$) but not statistically significant. Neither the Anglo students' Native nor Anglo Identification

scale scores were significantly correlated with their responses to the “ties to reservation” question.

Endogamy. The question, “When or if you get married, how important is it for you to marry a person from your ethnic group or tribe?” addresses the notion of endogamy. Students answered it on the same 4-point scale as the previous “ties to a reservation” question. Endogamy, or a commitment to endogamy, marriage within one’s ethnic group, should be associated with stronger Native identification among Native students, and with Anglo identification among Anglo adolescents.

Native students’ answers to this question ($M = 2.67$, $SD = 1.09$) were positively correlated ($r = .40$, $p < .001$) with their Native identification scale scores (Table 13, row 1, under the column “7. EN”). Their responses were negatively correlated with their Anglo Identification scale scores ($r = -.22$, $p < .01$). Unlike the questions related to Native-specific practices of residence on the reservation versus in town, the endogamy question applied equally well to Anglo and Native adolescents. Anglo students’ responses to the endogamy question ($M = 2.61$; $SD = 1.14$) were positively correlated with their Anglo Identification scale scores ($r = .28$, $p < .01$), and negatively correlated with their Native Identification scale scores ($r = -.21$, $p < .05$).

Cultural Practices and Values. Three additional questions addressed students’ use of Native language and adherence to Native cultural practices and values (see Table 10, items 7, 8, and 9). Survey respondents answered the questions on the same 4-point scale as the endogamy question. The three questions did not interrelate to form a strongly coherent scale (overall scale alpha for the Native students was .52). Therefore, the

questions were considered separately. Native students' responses to each question (language $M = 3.07$, $SD = .086$; practices $M = 2.84$, $SD = 1.08$; values: $M = 3.67$, $SD = 0.66$) were positively and strongly correlated with their Native Identification scale scores (r s of .38, .62, and .38, respectively; Table 13, row 1, columns marked, "8. TL," "9. TP," and , "10. V"). Native students' responses to these questions were negatively correlated with their Anglo identification scale scores, significantly so only for the first two questions (see Table 13, row 2). The three practices and values questions were aimed specifically at the Native students. Thus, the valid number of responses (< 15 for each question) was too low to calculate reliable correlations for the Anglo students.

Multigroup Ethnic Identity Measure. The MEIM scale addresses individuals' "own-group" ethnic identification (i.e., the Native Identification of Native students is their "own-group" identification). Therefore, individuals' MEIM scale scores should be positively correlated with their own group Ethnic Identification scale score, but not with their "other-group" Ethnic Identification scale score. This should be so for both Native and Anglo respondents. Results supported this prediction.

The MEIM responses formed two subscales, "Positive Attitudes and Belonging," and "Explorator" (see Tables 8a and 8b, respectively). Native students' Native identification scale scores were significantly and positively correlated with the Positive Attitudes and Belonging subscale of the MEIM $r = .34$, $p < .001$; Table 13, row 1, column "4. M1") and with the Exploration subscale $r = .47$, $p < .001$; Table 13, row 1, column "5. M2"). Native students' Anglo Identification scale scores, on the other hand,

were not statistically significantly correlated with their MEIM responses, on either subscale.

In contrast to the results for the Native youth, but in keeping with predictions, the Anglo students' Anglo Identification scale scores were positively and significantly correlated with their MEIM subscale scores (r 's = .28 and .25, respectively, p 's < .01; see Table 13, rows 4 and 5, column "2. AI"). The Anglo students' MEIM scale scores, however, were not associated with their Native Identification scale scores.

Summary. More questions were available to evaluate the construct validity of Native students' Native identification scales than to evaluate the Anglo students' Anglo Identification scale scores. In each case, however, results were consistent with the validity of the scales. The comparisons with the MEIM factors scores were also consistent with the discriminant validity of the ethnic identification scale scores (i.e., own-group identification scores for each group were significantly correlated with MEIM scores, but other-group identification scores were not). The evidence suggests that the scales validly tap Native and Anglo respondents' own-group ethnic identities.

The CFA results (Table 3c) showed that the Anglo Ethnic Identification scale tapped the same construct in Native and in Anglo youth. The Anglo identification scale scores of Anglo youth appear to validly represent their Anglo identity. Therefore, as the scale taps the same construct in Native and in Anglo youth, the Anglo Identification scale scores of the Native students' validly represent their level of Anglo Identification, as well.

Group-esteem

Only one variable was available to assess the construct validity of the group-esteem scale. The first subscale of the MEIM, Positive Attitudes and Belonging, partially addresses the construct of group-esteem (see Table 8a, items 1, 2, 3). The second subscale of the MEIM, Exploration, has no questions addressing the construct of group-esteem. Therefore, a valid measure of group-esteem should be positively correlated with Positive Attitudes and Belonging scores, but less strongly correlated with Exploration scale scores.

As shown in Table 13, for both Native and Anglo students, the results obtained were in accord with the prediction (row 3, columns “4. M1” and “5. M2” for Native students, and rows 4 and 5, Column “3. GE” for Anglo students). Native students’ group-esteem scale scores were more strongly correlated with their Positive Attitudes and Belonging subscale scores ($r = .49, p < .001$) than with their Exploration subscale scores ($r = .25, p < .001$; Fisher’s r to z for the comparison: $z = 2.41, p < .05$). Anglo students’ group-esteem scale scores were also more strongly correlated with their Positive Attitudes and Belonging subscale scores ($r = .63, p < .001$) than with their Exploration subscale scores ($r = .30, p < .001$; Fisher’s r to z for the comparison: $z = 3.51, p < .001$).

Evidence in support of the group-esteem scale scores’ validity is limited. It is, however, consistent for both Native and Anglo students. Moreover, the CFA results supported the supposition that the group-esteem scale measures the same construct in Native and in Anglo youth.

Interrelationships Among the Independent Variables

The three-factor model describes Native Identification, Anglo Identification, and group-esteem as three independent constructs, especially for the Native students. If the measures tap three separate constructs, they should not be strongly correlated with each other. The CFA results suggested that the Native and Anglo Identification scales were uncorrelated. The correlations shown in Table 13 are in keeping with the independence of all three measures. For Native students, none of the correlations among the three measures were statistically significant (see Table 13, rows 1, 2, and 3 and columns 2 and 3). For Anglo students, there was a statistically significant, but moderate, positive correlation between group-esteem and Anglo Identification ($r = .27, p < .01$). The size of that correlation does not, however, suggest that the two measures are redundant.

Dependent Measures

As shown in Table 14, all of the dependent measures, addressing global and domain-specific self-esteem were positively correlated (r s of .29 to .44; rows 1, 2, and 3 and columns 1, 2, and 3 of Table 14), for Native and for Anglo adolescents. The correlations, however, were not so strong as to suggest the scales tapped the same construct. As well, the correlations between the scales appeared to be smaller than the item-total correlations for the items comprising each scale (generally within the range .40 to .80; see Tables 5a, 6a, and 7a), again suggesting the measures tapped different, albeit related, constructs (Comrey, 1988).

Rosenberg Self-Esteem Scale. As described in chapter 4, the methods section, the validity of the Rosenberg Self-esteem scale as a measure of global self-esteem has been

well-demonstrated, in several studies (Blascovich & Tomaka, 1991; Keith & Bracken, 1996). It had not been used extensively with Native adolescents. The CFA results, however, clearly showed that the measure operationalizes the same construct in Native as in Anglo youth.

FOTS Academic Competence. Four items (Table 10, items 10, 11, 12, and 13) addressed students' academic orientation, their feelings about attending school. Responses to the four items were interrelated strongly enough to form an adequate scale (scale alpha for Natives = .63; $M = 13.48$; $SD = 2.64$; for Anglos, alpha = .75, $M = 14.61$, $SD = 2.76$, see Table 10, Note "d"). Students' Academic Orientation scale scores were expected to be positively correlated with their Academic Competence scale scores.

Both Native and Anglo students' scores on the Academic Orientation scale were strongly and positively related to their FOTS Academic Competence scale scores ($r = .53$ for Natives, $r = .50$ for Anglos, p 's < .001; see Table 14). This is evidence for the construct validity of the Academic Competence scale.

In each group, the correlation between the FOTS Academic Competence scale scores and the Academic Orientation scale scores were stronger than the correlation between the FOTS Academic Competence scale scores and MSPSS scores, the measure of perceived social support (see below; $z = 2.26$, $p < .05$ for Native students; $z = 2.01$, $p < .05$ for Anglo adolescents). This latter pair of comparisons suggested the discriminant validity of the FOTS Academic Competence scale, further evidence that the dependent variable measures tap different aspects of self-esteem.

FOTS Social Competence. The Multidimensional Scale of Perceived Social Support (MSPSS) was included to help evaluate the validity of the FOTS Social Competence scale. Recognizing that it addresses a construct different from self-perceived social competence, I still assumed that perceptions of social support and self-perceptions of being able to perform competently in social situations (the construct tapped by the Social Competence scale) would be positively related.

Results supported the expectation. For Native and for Anglo students, Social Competence scale scores were positively associated with MSPSS scores (for Natives, $r = .34$, $p < .001$; for Anglos, $r = .50$, $p < .001$; see Table 14). The correlation for the Native students was lower than that for Anglo students, but not significantly so ($z = 1.66$, $p > .05$).

Regarding discriminant validity, for Anglos, Social Competence scores were more strongly related to MSPSS scores than they were to Academic Orientation scale scores ($z = 2.01$, $p < .05$). This result supports the notion that Social and Academic competence are different aspects of self-esteem. For Native students, however, the correlation between Social Competence and MSPSS scores was no different from the correlation between Social Competence and Academic Orientation scores ($z = 0.20$, $p > .05$). The results for the Native students do not refute the notion that the measures address different constructs. That is, the correlations are similarly low (about .30) rather than similarly high (e.g., .50 as with the FOTS Academic Competence and Academic Orientation variables). The results, instead, suggest that the Social Support and Social

Competence measures tap more clearly differentiable constructs in Native than Anglo students.

Native/Anglo Self-esteem Comparisons

As discussed in chapter 3, researchers have devoted much research attention to examining Native youths' level of self-esteem, especially as compared with their dominant culture counterparts. To explore the same issue, I tested the overall difference in self-esteem scores between the two groups with a mixed ANOVA. Ethnicity was a between groups factor and self-esteem scale was a 3-level within-groups factor. Results showed a significant group effect ($F(1,280) = 5.53, p = .019$). There were also statistically significant effects for scale ($F(92,279) = 259.09, p < .001$) and for the group by scale interactions ($F(2,279) = 6.53, p = .002$). Overall, these results suggest that the Native students did have lower self-esteem than the Anglos, but that the difference depended on what aspect of self-esteem was measured.

Univariate tests (summarized in Tables 5a, 6a and 7a) compared the results for each scale, and explained the interaction. The Native students' FOTS Academic Competence scales scores were clearly lower than the Anglos' (see Table 6a). The same trend was observed for the Rosenberg Self-esteem scale. As discussed in part 1 of section 2, the difference between the two groups' mean scores on the Rosenberg Self-esteem scale was not statistically significant, but the confidence interval for the difference only just encompassed zero. In contrast, no appreciable difference between the groups on the FOTS Social Competence scale was apparent.

Summary

Overall, the CFA results suggested the self-esteem scales tapped the same construct in each group. The construct validity analyses supported the scales' validity. The results, however, were uniformly better for the Rosenberg Self-esteem and FOTS Academic Competence scales than for the FOTS Social Competence scale.

Table 10: Single Item Validity Measures

Item	Description
Media Use	
1	Which of the following newspaper do your read regularly?
2	What are the call letters of the radio station you listen to most?
Living Place/Reservation Ties	
3	Where do you live? In Town; On reservation, outside Town; Off reservation, outside Town
4	Is your house located: within 100 feet of a paved road; within 100 feet of a dirt road; further than 100 feet from a road
5	As you were growing up, did you live on or have close ties to a reservation? ^b
Endogamy / Exogamy	
6	When or if you get married, how important is it for you to marry a person from your ethnic group or tribe? ^b
Cultural Practice / Values^c	
7	Do you <u>speak</u> your tribal language? ^b
8	Do you participate in traditional practices such as memories, feasts, healing ceremonies, religious events, or naming ceremonies? ^b
9	How important is it to you to have Native American values and practices, such as respect for elders or generosity? ^b
Academic Orientation ^d	
10	In general, how well do you do in school? In school, I get: ^e
11	How do you feel about going to school? ^f
12	My highest educational goal is to: ^g
13	Compared with your classmates, how well do you do in school? ^h

Notes: ^a Native-specific response

^b Response Scale: 1: Not at All; 2: Not Much; 3: Some; 4: A lot

^c A scale for these items had low internal consistency (e.g. standardized alpha for Natives: .52). Therefore, these were used as single items.

^d A scale was formed from these items. For Natives, standardized item alpha: .63; For Anglos: .75. Higher scores mean more positive academic orientation.

^e Response Scale: 1: Mostly A's . . . 4: Mostly D's or lower (reversed for scale)

^f Response Scale: 1: I like school very much . . . 5: I hate school (reversed for scale)

^g Response Scale: 1: Not finish High School . . . 6: Get Master's, MD, or PhD degree

^h Response Scale: 1: Much below average . . . 5: Much above average

Table 11: Media Use and Ethnic Identification

Scale	Response Category		
	Native Only	Native & Anglo	Anglo Only
	<u>M</u> (<u>sd</u>)	<u>M</u> (<u>sd</u>)	<u>M</u> (<u>sd</u>)
<i>Which newspapers do you read regularly?</i>			
Native Identification	3.30 ^a (0.77)	3.09 ^{ab} (0.84)	2.85 ^b (0.86)
$F(2,134) = 3.27, p = .041$	$n = 33$	$n = 39$	$n = 65$
Anglo Identification	2.63 (0.94)	2.87 (0.85)	3.03 (0.81)
$F(2,130) = 2.46, p = .090$	$n = 32$	$n = 39$	$n = 62$
<i>What radio station do you listen to most?</i>			
Scale	Native ^c	Anglo Only	
	<u>M</u> (<u>sd</u>)	<u>M</u> (<u>sd</u>)	
Native Identification	2.75 (0.88)	2.09 (1.19)	
$t(8.1) = 2.04, p = .076$	$n = 8$	$n = 184$	
Anglo Identification	2.54 (1.18)	3.35 (0.76)	
$t(7.2) = 1.91, p = .096$	$n = 8$	$n = 191$	

Notes: Means (along rows) with different superscripts are significantly different by post-hoc test (Scheffé)

^c This group includes two native students who also listened to an Anglo radio station

Table 12: Place of Residence and Ethnic Identification

<i>Where do you live?</i>	Response Category		
	On reservation	Off reservation	In Town
Native Identification	3.13 (0.78)	2.71 (0.98)	2.83 (0.89)
$\underline{t}(153) = 2.02, p = .045^c$	$\underline{n} = 113$	$\underline{n} = 4$	$\underline{n} = 42$
Anglo Identification	2.78 (0.86)	3.13 (0.92)	3.10 (0.76)
$\underline{t}(148) = 2.08, p = .040^c$	$\underline{n} = 110$	$\underline{n} = 4$	$\underline{n} = 40$
<i>Is your house located:</i>			
	> 100 ft from a dirt road	< 100 ft from a dirt road	< 100 ft from a paved road
Native Identification	3.19 (0.86)	3.27 (0.60)	2.95 (0.84)
$F(2, 154) = 1.94, p = .147$	$\underline{n} = 27$	$\underline{n} = 22$	$\underline{n} = 108$
Anglo Identification	2.43 ^a (0.77)	2.71 ^{ab} (0.75)	3.01 ^b (0.84)
$F(2, 149) = 5.46, p = .005$	$\underline{n} = 25$	$\underline{n} = 20$	$\underline{n} = 107$

Notes: Means (along rows) with different superscripts are significantly different by post-hoc test (Scheffé)

^c Due to small cell \underline{n} , t -test compares only the outer pair of categories

Table 13: Zero-Order Correlations: Independent Variables

Variable	Variable									
	1.NI	2.AI	3.GE	4.MI	5.M2	6.TR	7.EN	8.TL	9. TP	10.V
	<i>Native</i>									
1. Native Identification	r (n)	-.14 (153)	.03 (157)	.34* (147)	.47* (147)	.28* (153)	.40* (156)	.38* (149)	.62* (150)	.38* (149)
2. Anglo Identification	-.10 (125)		.07 (152)	.03 (143)	.06 (143)	.14 (150)	-.22† (152)	-.17‡ (145)	-.06 (146)	.01 (145)
3. Group Esteem	-.03 (122)	.27† (137)		.49* (151)	.25† (151)	.13 (157)	.04 (160)	<.01 (152)	.17‡ (153)	.33* (152)
4. MEIM: Positive Att. / Belonging	-.05 (115)	.28† (128)	.63* (135)		.70* (152)	.17‡ (147)	.15 (151)	.17‡ (144)	.31* (145)	.38* (144)
5. MEIM: Exploration	-.11 (115)	.25† (128)	.30* (135)	.69* (135)		.18‡ (147)	.25† (151)	.16‡ (144)	.49* (145)	.32* (144)
6. Ties to Reservation	.26† (123)	.04 (137)	.22† (140)	.22‡ (133)	.22‡ (133)		.24† (156)	.25† (149)	.17‡ (150)	.15 (149)
7. Endogamy	-.21‡ (124)	.28† (138)	.27† (141)	.35* (134)	.29* (134)	.05 (144)		.18‡ (152)	.26† (153)	.15 (152)
8. Speak Tribal language									.25† (152)	.14 (152)
9. Traditional Practices										.41* (152)
10. Native Values										r (n)
	<i>Anglo</i>									

Notes: Correlations for Native students appear above the diagonal;
 Correlations for Anglo students appear below the diagonal;
 ‡ p < .05; † p < .01; * p < .001

Table 14: Zero-Order Correlations: Dependent Variables

Variable	Variable				
	1. RS	2. AC	3. SC	4. AO	5. SS
	<i>Native</i>				
4. Rosenberg Self-esteem	r (n)	.41* (152)	.29* (150)	.26* (154)	.26* (151)
5. Academic Competence	.44* (138)		.42* (155)	.53* (155)	.32* (156)
6. Social Competence	.43* (135)	.44* (141)		.32* (154)	.34* (155)
7. Academic Orientation	.27* (141)	.50* (145)	.24* (142)		.34* (155)
8. Social Support (MSPSS)	.37* (137)	.30* (143)	.50* (140)	.20* (144)	r (n)
	<i>Anglo</i>				

Notes: Correlations for Native students appear above the diagonal;
 Correlations for Anglo students appear below the diagonal;
 * $p < .001$

Section 3: Study Hypotheses

Chapters 2 and 3 described four specific study hypotheses. Phrased in terms of the study measures, the hypotheses were:

1. Native identification scores among Native youth will be positively associated with the self-esteem scores of those youth.
2. Anglo identification scores among Native youth will be positively associated with the self-esteem scores of those youth.
3. Native youths' mean group-esteem scores will be positively associated with their mean self-esteem scores.
4. There will be a statistically significant interaction between group-esteem and Native identification to predict self-esteem.

Figures 4a and 4b illustrate the form of the main and interaction effects predicted by these hypotheses. In both figures, self-esteem, the outcome variable, is represented on the vertical axis. Group-esteem, one of the three independent variables, is represented on the horizontal axis. In Figure 4a and 4b, the three lines on the graphs represent different levels of Native Identification. Figure 4a represents Native youth with a low level of Anglo Identification and 4b, those with a high level of Anglo Identification.

The horizontal separation among the graphs' three lines illustrates hypothesis 1. Higher levels of Native identification are associated with higher self-esteem. The difference between Figures 4a and 4b illustrates hypothesis 2: higher Anglo identification is associated with higher self-esteem, so all the lines in Figure 4b are shifted upwards compared with those in 4a. Hypothesis 3 is reflected in an overall upward trend of the lines; as group-esteem increases, self-esteem tends to increase. The differences among the lines within each graph illustrate hypothesis 4. Low (or null) Native Identification is

associated with a low level of self-esteem, but also with a very weak, or absent, association between group-esteem and self-esteem. As Native Identification strengthens, however, the connection between group-esteem and self-esteem grows stronger.

To test the hypotheses, two-step hierarchical regression analyses were employed (Cohen & Cohen, 1983; Pedhazur, 1982). In the first step, all three independent variables were simultaneously entered into the regression equation. The first three hypotheses imply that, at the first step, each variable should exert a significant, independent effect on the dependent variable. In the second step, an interaction term (i.e., for each student, the product of Native identification and group-esteem scale scores) was added to the equation, to test hypothesis 4 (Aiken & West, 1991; Cohen & Cohen, 1983; Pedhazur, 1982). The hypotheses imply that Anglo identification would remain a significant predictor, even when the interaction term was added. That is, Anglo identification was expected to contribute to self-esteem, independently of Native identification or group-esteem. The regression analyses were conducted separately for each independent variable, in turn.

Testing hypothesis 4 requires entering an interaction term (i.e., the product of Native identification and group-esteem) into the regression equation. McClelland and Judd (1993), as described in chapter 4, discussed the difficulty of detecting interactions in naturalistic studies. In experimental studies, researchers can manipulate conditions to produce jointly extreme cases, cases at extreme values for both elements making up the interaction term. In naturalistic studies, such as this one, no such manipulation is

possible. The lack of jointly extreme cases reduces the statistical power available to detect interactions.

The two variables comprising the interaction term to test hypothesis 4 are Native identification and group-esteem. These two variables are plotted against one another in Figure 5. Group-esteem is on the X-axis; Native identification is on the Y-axis. If all jointly extreme cases were present, points would be spread throughout the space of the graph. Instead of being evenly spaced, cases in Figure 5 tend to cluster in the upper right of the graph (i.e., to make this clearer, a diagonal line was placed on the graph. Cases are clustered above the diagonal line). The distribution in Figure 5 implies that statistical power to detect the interactions (but, not the main effects) may be attenuated. Therefore, I will carefully evaluate results, rather than simply relying of arbitrary probability levels of .05 to decide “significance.”

Figure 4: An illustration of the study hypotheses

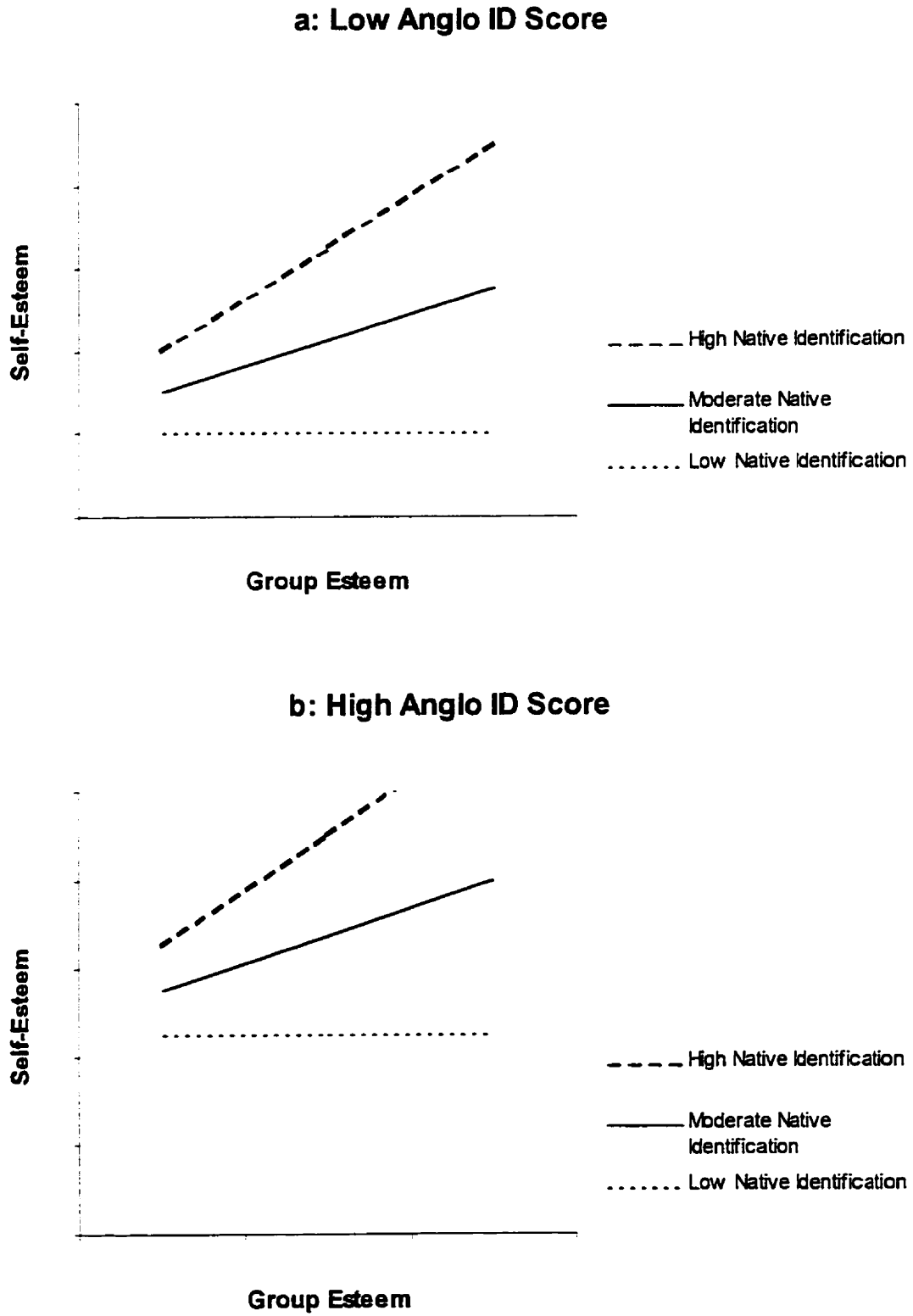


Figure 5: Joint Distribution of Group-Esteem and Native Identification

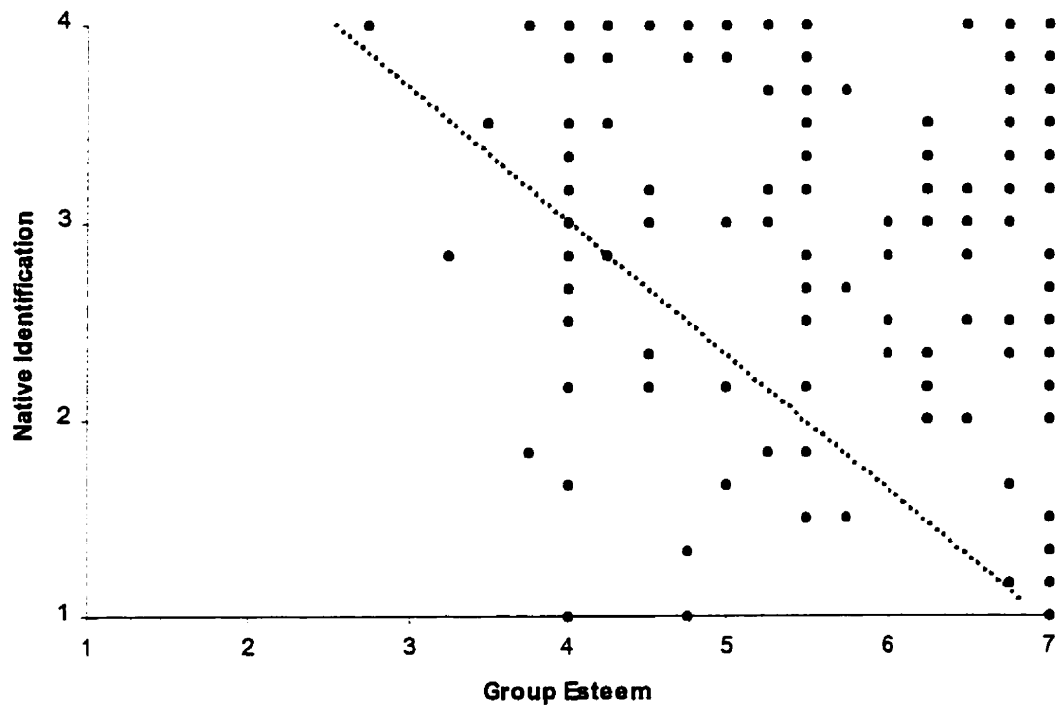


Table 15: Zero-Order Correlations

Variable	Variable					
	1.NI	2.AI	3. GE	4. RS	5.AC	6. SC
	<i>Native</i>					
1. Native Identification	\underline{r} (n)	-.14 (153)	.03 (157)	-.06 (152)	-.01 (153)	.03 (152)
2. Anglo Identification	-.10 (125)		.07 (152)	.04 (148)	.22 [†] (149)	.23 [†] (147)
3. Group Esteem	-.03 (122)	.27 [†] (137)		.31 [*] (155)	.24 [†] (157)	.29 [*] (155)
4. Rosenberg Self-esteem	<.01 (120)	.12 (135)	.31 [‡] (136)		.41 [*] (152)	.29 [*] (150)
5. Academic Competence	-.07 (124)	.31 [*] (140)	.22 [†] (140)	.44 [*] (138)		.42 [*] (155)
6. Social Competence	-.13 (121)	.27 [†] (138)	.24 [†] (137)	.43 [*] (135)	.44 [*] (141)	\underline{r} (n)
	<i>Anglo</i>					

Notes: Correlations for Native students appear above the diagonal;
 Correlations for Anglo students appear below the diagonal;
[‡] p < .05; [†] p < .01; ^{*} p < .001

Rosenberg Self-Esteem Scale

Table 15 summarizes the zero-order correlations among the three independent variables and the Rosenberg Self-esteem scale. As discussed earlier, none of the correlations among the three independent variables was statistically significant. As well, however, neither the Native identification nor the Anglo identification scale score was correlated with the Rosenberg Self-esteem scores. The group-esteem scale, on the other hand, was positively correlated with the Rosenberg Self-esteem scale. Thus, only hypothesis 3 found support in the initial analyses.

Table 16 summarizes the results of the regression analyses conducted with the Rosenberg Self-esteem scale as the dependent variable. The first step produced a low R^2 value of .08, which was, nonetheless, statistically significant ($F(3,141) = 4.33, p = .006$; see table 16, notes). Considering the individual independent variables, the results paralleled the zero-order correlations. Only the group-esteem scale added a statistically significant prediction term to the equation. Therefore, the result does not support hypotheses 1 or 2, but does support hypothesis 3.

In step 2, the addition of the interaction term produced a change in R^2 of .021, which did not meet traditional levels of statistical significance (i.e., $F(1,140) = 3.29, p = .072$). Given McClelland and Judd's (1993) cautions and the closeness of the observed p level to the traditional, arbitrary value of .05 (Cohen, 1994), the interaction is plotted in Figures 6a through 6c. Group-esteem is displayed along the X-axis and self-esteem scores along the Y-axis. A separate graph is displayed for each of three values of Native students' Anglo Identification (i.e., the three values are low Anglo

Identification, the mean Anglo Identification score less one standard deviation, mean Anglo Identification, and high Anglo Identification, the mean score plus one standard deviation). On each graph, each line represents a separate value of Native Identification (Low, the mean less one standard deviation, the Mean, and High, the mean plus one standard deviation).

The figures clearly describe an interaction. The form of the interaction, however, is opposite to the one predicted. The hypothesis was that the relationship between Group-esteem and Self-esteem would be strongest, most direct, when Native Identification was high. In other words, when Native adolescents felt a strong commitment to their Native identity, the relationship between their esteem for their group and their esteem for themselves would be strong. The figures describe an opposite pattern. That is, the relationship between group-esteem and self-esteem seems strongest, most direct, when Native Identification is low. When Native Identification is high, self-esteem appears to be high, and unrelated to group-esteem. The Anglo Identification factor did not produce an independent effect on self-esteem. Thus, the three graphs very nearly reproduce each other; there is no practical difference between Figures 6a to 6c.

Table 16: Hierarchical Regression: Dependent Variable: Rosenberg Self-esteem Scale

<i>Native Students Only (n = 145)</i>				
Variable	<u>B</u>	<u>se B</u>	β	<i>p</i>
<i>Step 1</i>				
Native Identification	-0.059	0.073	-0.065	.427
Anglo Identification	0.009	0.074	0.009	.908
Group Esteem	0.189	0.053	0.286	.001
<i>Step 2</i>				
Native Identification	0.634	0.389	0.704	.105
Anglo Identification	0.015	0.074	0.017	.834
Group Esteem	0.538	0.200	0.817	.008
Nat. Id. x Grp. Esteem ^a	-0.116	0.064	-0.970	.072

Notes: *Step 1*: Adjusted $R^2 = .065$; $R^2 = .084$; $F(3,141) = 4.33$, $p = .006$;

In step 1, F for regression;

Step 2: Adjusted $R^2 = .080$; $\Delta R^2 = .021$; $F(1,140) = 3.29$, $p = .072$

In step 2, F for change in R^2

^a Interaction: Product term Native Identification score multiplied by Group Esteem Score

Figure 6a: Rosenberg Self-Esteem (Low Anglo ID)

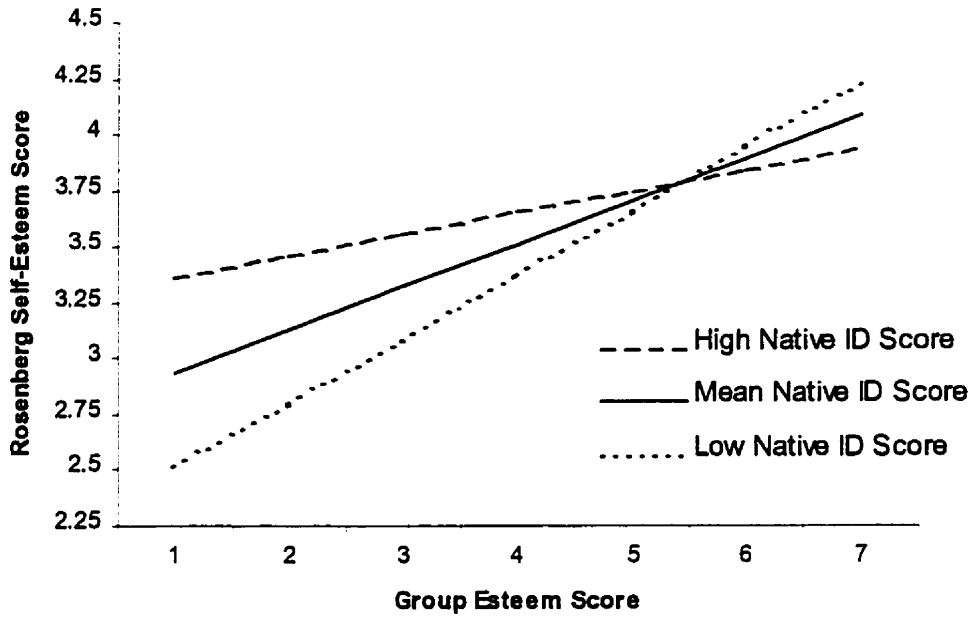


Figure 6b: Rosenberg Self-Esteem (Mean Anglo ID)

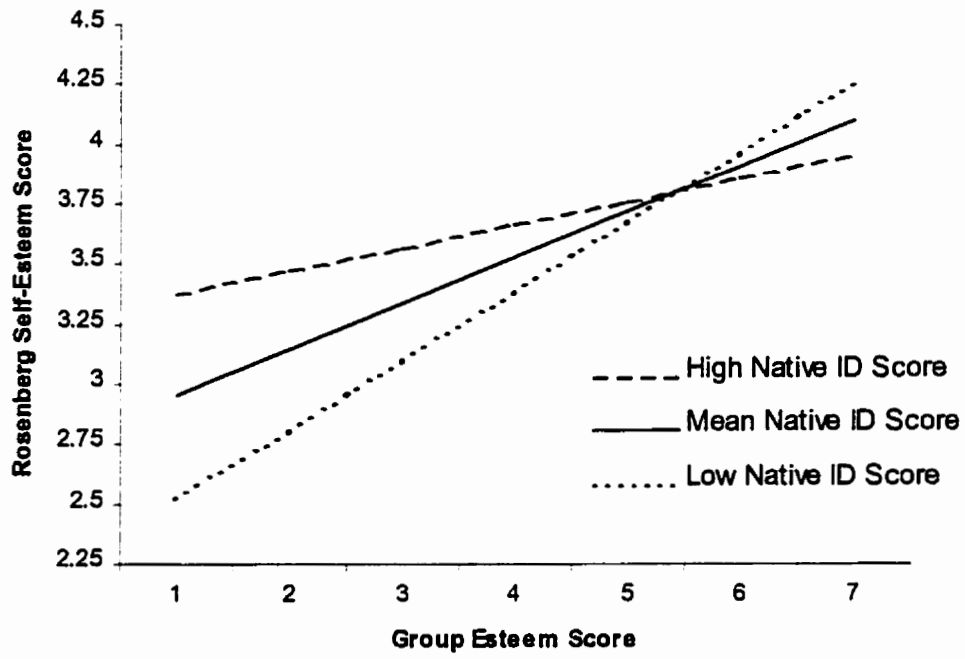
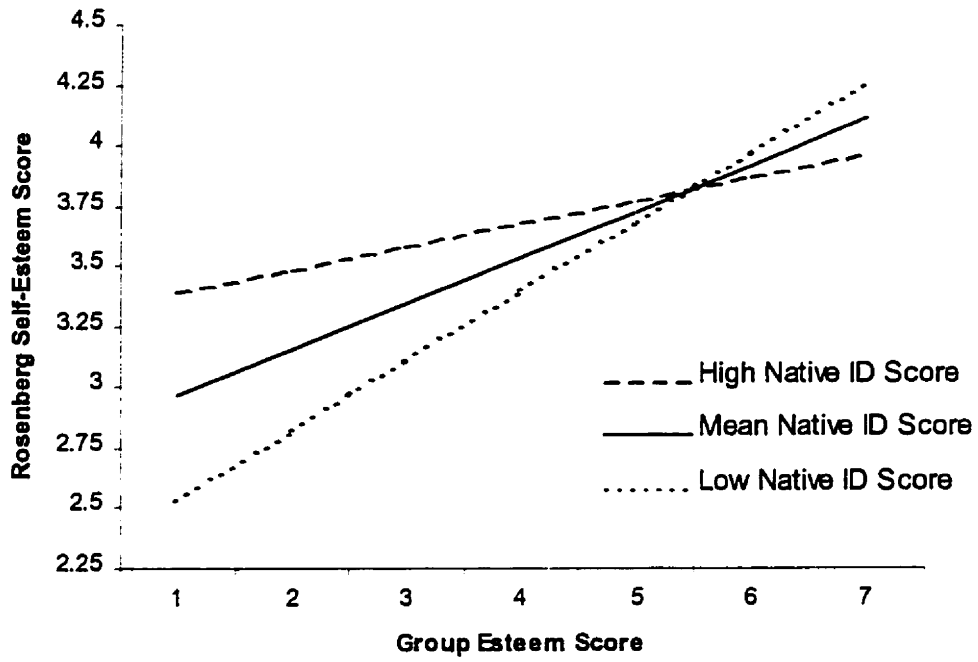


Figure 6c: Rosenberg Self-Esteem (High Anglo ID)



FOTS Academic Competence

The zero-order correlations reported in Table 15 show that Native students' Native Identification scale scores have no independent relationship with FOTS Academic Competence scale scores $r = -.01$, Table 15, column "5.AC"). Their Anglo Identification and group-esteem scores, however, are each positively correlated with their Academic Competence scale Scores $r = .22$ and $.24$, respectively, p 's $< .01$). Therefore, these results support hypotheses 2 and 3, but not 1.

Table 17 summarizes the hierarchical regression results. Entry of the three independent variables in step 1 produced a modest R^2 of $.08$ ($F(3,143) = 3.85$, $p = .011$). As in the zero-order correlations, Anglo Identification and group-esteem produced statistically significant regression coefficients, but Native Identification did not.

The second step produced a change in R^2 of $.02$ ($F(1,142) = 2.79$, $p = .097$; Table 17, Notes). As before, the p value associated with the change in R^2 closely approached the traditional cutoff, so the interaction was plotted. The format of the graphs (Figures 7a through 7c) was as before. Group-esteem was plotted against self-esteem. The lines on the graph were for each of three levels of Native Identification, High, Mean, and Low. A separate plot was produced for each of three levels of Anglo Identification.

The form of the interaction was similar to that for the Rosenberg Self-esteem scale. Low Native Identification appears to be associated with the most direct relationship between group-esteem and self-esteem. At high levels of Native Identification, the relationship between group-esteem and self-esteem appears to be weaker. The main effect for Anglo Identification is reflected in the observation that,

across the three plots, higher Anglo Identification scores serve to shift the curves upward.

This suggests that values of the other variables notwithstanding, higher Anglo

Identification is associated with higher Academic Competence.

Table 17: Hierarchical Regression: Dependent Variable: FOTS Academic Competence

<i>Native Students Only (n = 147)</i>				
Variable	<u>B</u>	<u>se B</u>	β	<i>p</i>
<i>Step 1</i>				
Native Identification	0.021	0.066	.026	.754
Anglo Identification	0.167	0.067	.203	.014
Group Esteem	0.109	0.048	.181	.027
<i>Step 2</i>				
Native Identification	0.608	0.358	.747	.092
Anglo Identification	0.176	0.067	.214	.009
Group Esteem	0.407	0.185	.677	.030
Nat. Id. x Grp. Esteem ^a	-0.098	0.059	-.911	.097

Notes: *Step 1*: Adjusted $R^2 = .055$; $R^2 = .075$; $F(3,143) = 3.85$, $p = .011$;

In step 1, F for regression;

Step 2: Adjusted $R^2 = .067$; $\Delta R^2 = .018$; $F(1,142) = 2.79$, $p = .097$;

In step 2, F for change in R^2

^a Interaction: Product term Native Identification score multiplied by Group Esteem Score

Figure 7a: FOTS Academic Competence (Low Anglo ID)

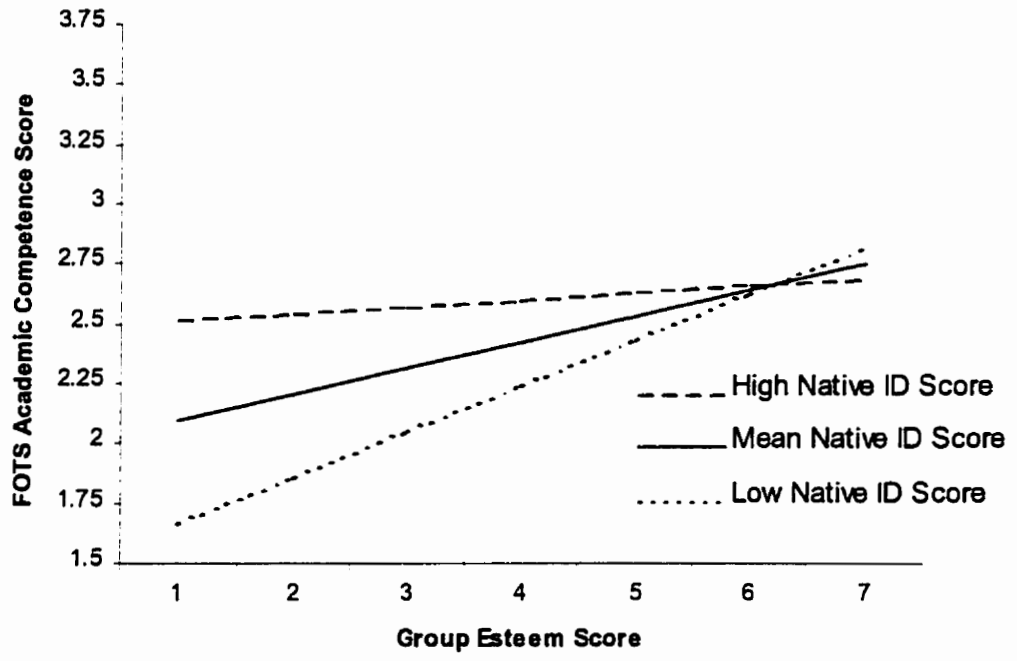


Figure 7b: FOTS Academic Competence (Mean Anglo ID)

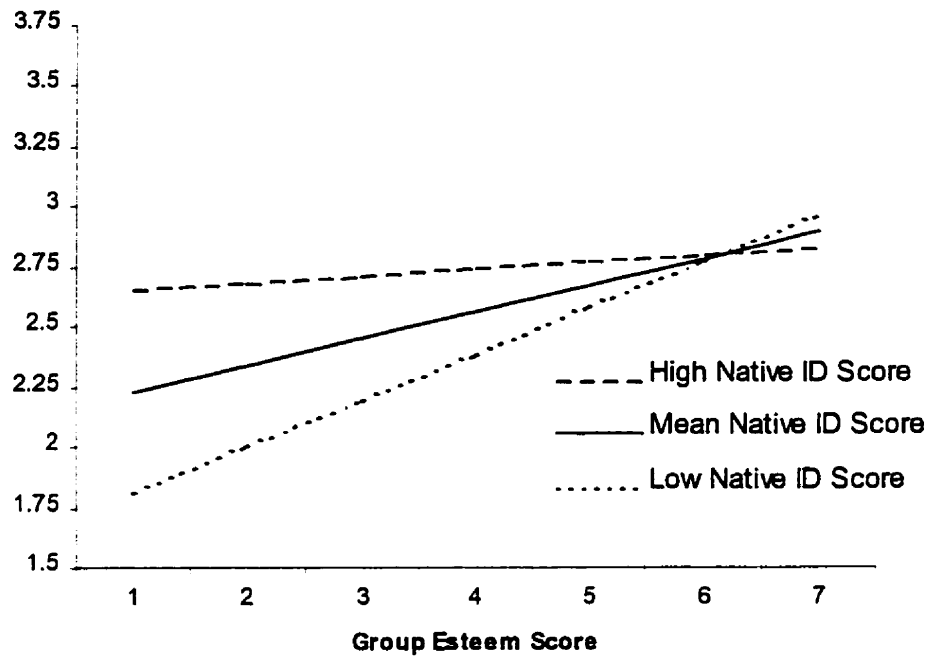
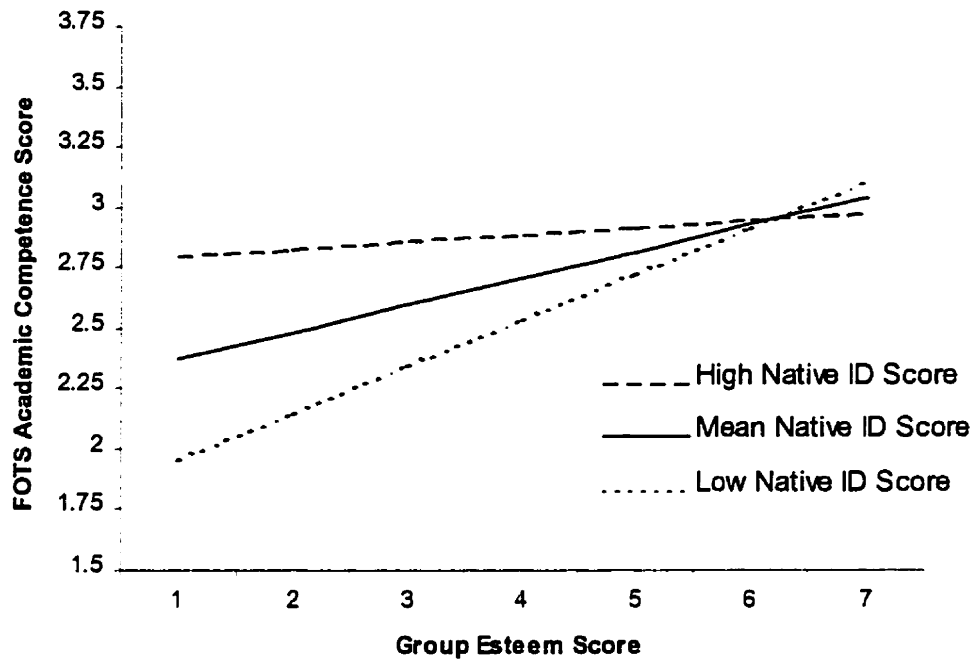


Figure 7c: FOTS Academic Competence (High Anglo ID)



FOTS Social Competence

In Table 15, zero-order correlations between the independent variables and the FOTS Social Competence scale scores appear under the column marked “6. SC.” The results mimic those for the Academic Competence scale. Native Identification scale scores were not statistically significantly associated with Social Competence scale scores ($r = .03$), but Anglo Identification and group-esteem scale scores are both significantly, positively associated with Social Competence scale scores ($r = .23, p < .01$, and $r = .29, p < .001$, respectively).

The hierarchical regression results for analyses with the FOTS Social Competence scale as the dependent variable are shown in Table 18. In the first step, an R^2 value of .12 emerged ($F(2,140) = 5.89, p = .001$). Anglo Identification and group-esteem were statistically significant independent variables, but Native Identification was not.

Step 2 produced a non-significant change in R^2 ($\Delta R^2 = .01, F(1,139) = 1.18, p = .28$; Table 18, notes). For comparison with the other two dependent variables, however, the interaction was plotted, as shown in Figures 8a to 8c. Although not approaching statistical significance, the form of the interaction was as with the other dependent variables. The association between group-esteem and self-esteem appeared to be strongest at low, not high, levels of Native Identification. Anglo Identification adds independent prediction of self-esteem, with higher levels of Anglo Identification serving to move the curves upward.

Table 18: Hierarchical Regression: Dependent Variable: FOTS Social Competence

<i>Native Students Only (n = 144)</i>				
Variable	<u>B</u>	<u>se B</u>	β	<i>p</i>
<i>Step 1</i>				
Native Identification	0.044	0.059	.060	.458
Anglo Identification	0.149	0.060	.199	.015
Group Esteem	0.144	0.044	.263	.001
<i>Step 2</i>				
Native Identification	0.388	0.322	.528	.230
Anglo Identification	0.154	0.061	.206	.012
Group Esteem	0.319	0.167	.582	.058
Nat. Id. x Grp. Esteem ^a	-0.058	0.053	-.588	.279

Notes: *Step 1*: Adjusted $R^2 = .093$; $R^2 = .112$; $F(3,140) = 5.89$, $p = .001$;

In step 1, F for regression

Step 2: Adjusted $R^2 = .094$; $\Delta R^2 = .007$; $F(1,139) = 1.18$, $p = .279$;

In step 2, F for change in R^2

^a Interaction: Product term Native Identification score multiplied by Group Esteem Score

Figure 8a: FOTS Social Competence (Low Anglo ID)

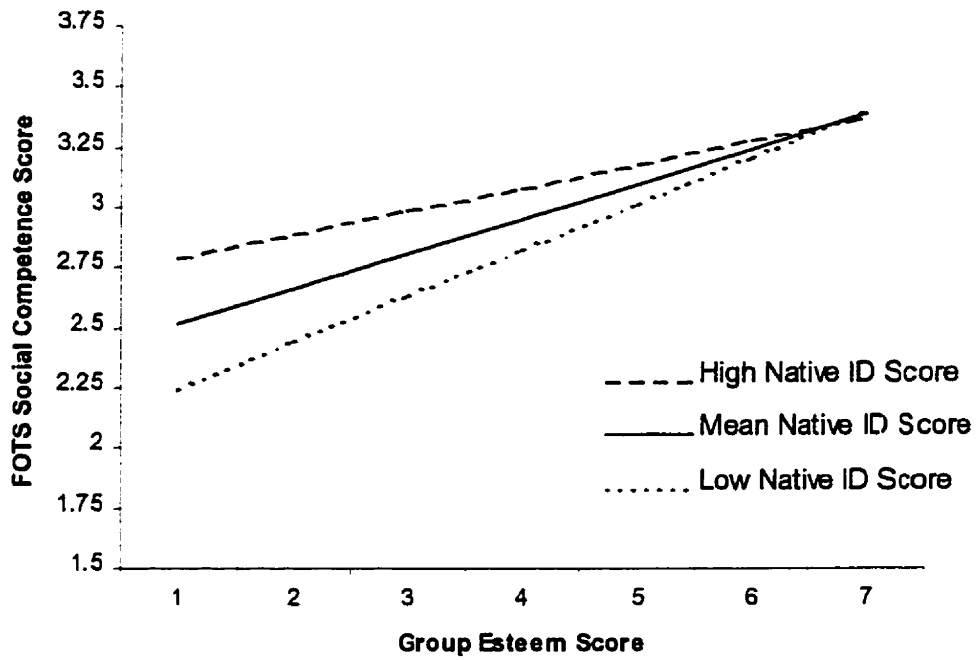


Figure 8b: FOTS Social Competence (Mean Anglo ID)

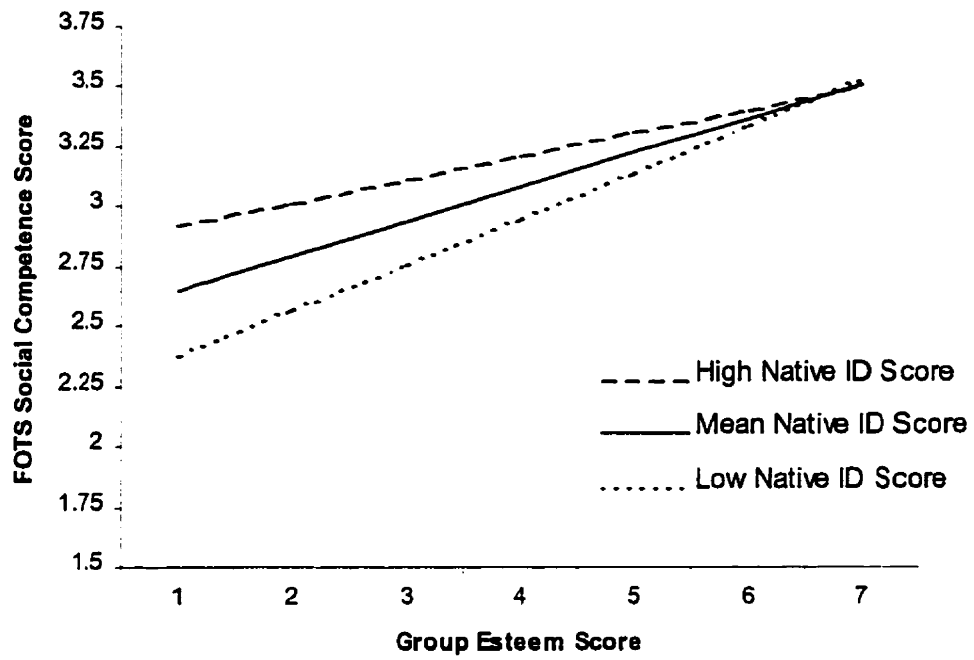
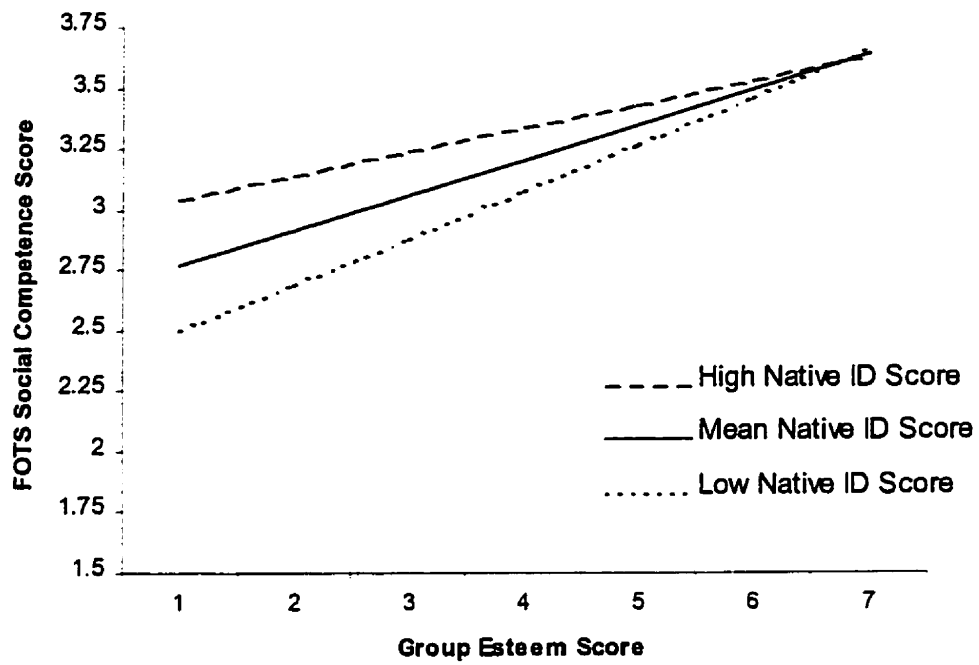


Figure 8c: FOTS Social Competence (High Anglo ID)



CHAPTER 6

Discussion

A three-factor model of ethnic identity provided the framework for this study. The three factors were (a) Native identification, youths' subjective sense of commitment or "stake" in the Native culture of their heritage, (b) Anglo identification, an analogous sense of belonging to the dominant culture that surrounds Native young people, and (c) group-esteem, individuals' appraisals of the ethnic group of their heritage. Study results revealed no significant associations among the model's three factors. Results showed Native young people had higher group-esteem than their Anglo (i.e., dominant culture) counterparts. In this chapter, I discuss the implications of these findings for understanding the three-factor model and I evaluate some assumptions that have guided previous considerations of ethnic identity.

The three-factor model provided a framework for assessing the contribution of ethnic identity to Native youths' self-esteem. Overall, Native youth had lower self-esteem than their Anglo counterparts. The size of the difference depended on the facet of self-esteem measured. The difference between Native and Anglo adolescents' self-esteem scores was largest for Academic Competence, self-perceived facility with school-related tasks. A difference favoring the Anglo students for global self-esteem did not meet traditional levels of statistical significance. No difference between Native and Anglo students was apparent for Social Competence, self-perceptions of social skills. In a second section of this chapter, I discuss possible interpretations of this ethnic group by self-esteem scale interaction.

This study tested four hypotheses. The first was that Native youths' level of Native identification would be positively associated with their self-esteem. Results did not support this hypothesis. Native young peoples' Native identification was not associated directly with any of three measures of self-esteem. The second hypothesis was that Native youths' level of Anglo identification would be positively associated with their self-esteem. Positive associations between Anglo identification and both Academic and Social Competence supported the second hypothesis. A third hypothesis predicted a positive association between Native adolescents' group-esteem and self-esteem. Positive associations between group-esteem and each of three measures of self-esteem supported the third hypothesis. Finally, the fourth hypothesis comprised a predicted interaction between group-esteem and Native identification to predict self-esteem. The hypothesis implied that association between group-esteem and self-esteem would grow stronger as Native identification increased. Results revealed the opposite pattern. As Native identification increased, the association between group-esteem and self-esteem became weaker.

I discuss the results for each hypothesis considering three theoretical frameworks that inspired them. The frameworks were identity theory (a strong identity engenders strong self-esteem), symbolic interactionism (one's self-esteem reflects others' evaluations), and a Jamesian account of self-esteem (evaluations and aspirations interact to affect self-esteem). None of the three frameworks accounted for the overall pattern of associations between the three-factors of the model and self-esteem. An alternative interpretation is presented. The alternative interpretation emphasizes the importance of

minority group status as an influence on Native young peoples' self-esteem. Finally, I explore the limitations of the study, including their implications for future theorizing and research in this area.

The Three-Factor Model

Native and Anglo Identification. It is widely assumed that to form an ethnic identity, Native youth must choose between their heritage culture and the dominant culture. The results of this study suggest that this is not true. If Native youth are forced to choose one identification over the other, one would expect a negative correlation between scales measuring the two identifications. As Native young people chose one, they would renounce the other. No correlation between ethnic identification scores emerged, however, for either Native or for Anglo youth.

Across the two groups, different reasons accounted for the absence of correlation between the two scales. Anglo adolescents' Native identification scores did not vary: whatever their level of Anglo identification, Anglo youth reported no Native identification. Despite living in a multicultural setting, Anglo youth developed only one ethnic identification.

Unlike their Anglo peers, Native students showed a range of both Native identification and Anglo identification scores. The Native adolescents' mean score on the Native identification scale was slightly (not statistically significantly) higher than their mean score on the Anglo identification scale. The 95% confidence intervals for the means were of approximately equal width, suggesting similar variability for scores on each scale. If the Native adolescents' ethnic identification scale scores are equally

variable, the lack of correlation between the two scale scores suggests that the two ethnic identities vary independently among Native youth. Native youth can have a single ethnic identification (Native or Anglo), two strong ethnic identifications (Native and Anglo), or none, identifying with neither their heritage nor the dominant culture that surrounds them. To know Native youths' level of Anglo identification is to know nothing of their level of Native identification.

Native youth can form multiple ethnic identifications. They do not develop an Anglo identification at the expense of a Native identification, or vice versa; they do not choose between the two. Therefore, researchers must be clear about what cultural affiliation they are considering when discussing Native young peoples' ethnic identities. Moreover, if researchers focus on only Native youths' Native identity (e.g., Bates et al., 1997; Zimmerman et al., 1996), they neglect a potentially important aspect of Native adolescents' ethnic self-concept. Later discussion of the results in light of hypotheses linking Native youths' Native identification and their Anglo identification with their self-esteem will further illustrate the importance of considering both aspects of Native youths' ethnic identities.

Group-Esteem. The three-factor model includes another element that commentators often discuss under the rubric of ethnic identity. Group-esteem taps Native individuals' appraisals of the ethnic group of their heritage. Sometimes researchers call this construct "ethnic pride." The model includes this element to account for the prevalent assumption that Native youth will "internalize" a disparaging view of Native people expressed by non-Natives, particularly those of the dominant culture. As I

discussed in chapter 2, some theorists believe that these internalized disparaging views of Native people are manifested as “self-hate” (e.g., Erikson, 1968)

Dealing with prejudices and stereotypes directed at oneself because of one’s group membership cannot be pleasant. It is a leap, however, to assume that individuals’ will internalize those stereotypes. To make the leap, theorists such as Erikson must assume that victims of the stereotypes attend to the stereotypes, believe them, and choose to accept the stereotyper’s ideas over other available opinions. From a symbolic interactionist perspective on self-esteem we internalize the opinions of significant others (Harter, 1996; Lal, 1995). Proponents of the “self-hate” hypothesis must assume that members of the dominant culture are significant others for Native youth⁵.

The three-factor model assumes that Native youth are socialized into the dominant culture, to the extent that they might develop an identity based on that culture. If Native young people are socialized into the dominant culture, they must be exposed to stereotypes and prejudices expressed by members of the dominant culture. This exposure implies that most Native youth are aware of the prejudices directed at them. At the same time, Native young people have sources of information about Native people other than the dominant culture’s stereotypes and prejudices.

Just as Native youth are socialized into the dominant culture surrounding them, they are socialized into the Native culture of their heritage. It is difficult to believe that

⁵ Proponents of the self-hate hypothesis make other assumptions. They must believe that the dominant culture presents only negative messages about Native peoples. Members of the dominant culture may also express positive notions about Native people. For example, a thriving tourist industry attracts members of the dominant culture to the Navajo reservation to learn about a rich culture with a long history.

all Native youths' parents, siblings, and extended family (i.e., significant others for youth) disparage Native young people for their ethnic group membership. They might teach Native youth about the existence of stereotypes and prejudices, but there is no reason to assume they would uniformly accept those stereotypes as true.

The results of this study are consistent with doubts that Native youths internalize stereotypes and prejudices as "self-hate" (see chapter 2). "Self-hate" should manifest as lower group-esteem scale scores among the Native young people compared with their Anglo peers. In contrast to the assumption, group-esteem scale scores of the Native youth were statistically significantly higher than the group-esteem scores of the Anglo youth. The Native students' Positive Attitudes and Belonging MEIM subscale scores (a measure partially tapping group-esteem) were also higher than those of the Anglo young people. This implies that the views of Native people that Native adolescents internalize are not necessarily the negative views expressed by the dominant culture.

Native/Anglo comparisons on the group-esteem dimension are consistent with results of other studies. In chapter 3, I described the results of Crocker et al.'s (1994) study of group-esteem among White, Black, and Asian American college students. They showed that Black students, a very disparaged group in the United States (Cross, 1995; Ogbu, 1991), had higher group-esteem than their White counterparts. The Black students' estimate of the dominant culture's view of Blacks, however, was low. Therefore, although Black college students appeared to recognize the disparagement of Blacks, they did not subscribe to it. In keeping with results I discuss later, the Black

students' self-esteem was related to their group-esteem, but their self-esteem was not related to their perceptions of the general public's view of Blacks.

One cannot generalize directly from studies with Black participants to the situation of Native youth. The two groups, Blacks and Natives, are, however, similarly disparaged (Cross, 1995; Harjo, 1993; Ogbu, 1991). It is not unreasonable to expect parallels between the two groups' perceptions of dominant culture attitudes. As well, other literature reviews support these general observations (e.g., Crocker & Major, 1989; Cross, 1991; Porter & Washington, 1993).

Self-esteem comparisons

Overall, Native adolescents in this study had lower self-esteem than their Anglo peers. This reproduced the pattern seen in earlier research, as described in chapter 3. Before making the comparison, I tested that the self-esteem measures were equally applicable for both Native and Anglo respondents. For each scale, Confirmatory Factor Analysis (CFA) results showed that the same model accounted for item responses in both groups. That the scales were equally applicable in each group enhances one's confidence in the veracity of the differences revealed by the comparisons.

The Native/Anglo self-esteem difference was not uniform across scales or domains. Compared with their Anglo peers, Native adolescents' self-esteem was lowest for Academic Competence, self-perceptions of ability to perform school-related tasks. There was a trend toward lower self-esteem among Native students for global self-evaluation. No Native/Anglo self-esteem difference was apparent for Social Competence, self-perceptions of social skills.

The varying pattern of self-esteem differences across scales may depend on the properties of the measuring instruments themselves. For each scale, the same model accounted for the scales' structures across the two groups, suggesting that the scales tapped the same construct in each group. Within the groups, however, the CFA results were not ideal, at least for two of the scales. To generate an adequate fit both for the Native and Anglo groups, the model for the FOTS Social Competence scale had to be respecified to include several correlated error terms. This, in turn, suggests potentially problematic measurement issues. For example, the scale may tap constructs besides Social Competence. The Rosenberg Self-esteem scale, in keeping with other results (e.g., Marsh, 1996; Rosenberg, 1979), evidenced an underlying two-factor structure. Ideally, a one-factor solution would account for a scale designed to measure a unitary construct. Only the CFA results for the FOTS Academic Competence scale were unqualified by any difficulties. As the scales show increasingly "clean" factor structures, they more clearly reveal a Native/Anglo self-esteem difference. The scale by group interaction, therefore, may depend not on the domain of self-esteem being measured but on the qualities of the scale used to assess self-esteem.

Discussion of measurement artifacts suggests that the measures may not be psychometrically sound. This was not the case. The factor structures of only two measures were problematic. More usual psychometric indices, item-total correlations and standardized item alphas, suggested that each scale was sound. All of the standardized item alphas, for example, exceeded .80, showing strong internal consistency

for each scale. Therefore, substantive interpretations may provide more compelling explanations for the ethnic group by scale interaction.

Rejection of the measurement-strategy explanation for the ethnic group by scale interaction awaits further study. Another explanation for the effect, however, has already been presented. Bienvenue (1978) hypothesized that Native young peoples' self-esteem will be negatively affected only when Anglo norms form the standard of comparison. As discussed in chapter 3, her results were consistent with her hypothesis; the present results are similarly consistent.

Formal schooling is the quintessential dominant culture socializing influence (Brown, 1995; Chrisjohn et al., 1988; Garrett, 1995; Little Soldier, 1985). Therefore, in school-related domains, Native students should have lower self-esteem than their Anglo peers. The Native/Anglo self-esteem difference was largest for Academic Competence. In the domain of social interaction, where Native culture is just as likely as Anglo culture to provide the relevant norms, Native youths' self-esteem should equal that of their Anglo counterparts. There was no difference between Native and Anglo adolescents' scores for Social Competence. Global self-esteem, affected by many factors, some reflecting Native norms and some reflecting Anglo norms, should be midway between the two. This was as observed with the Rosenberg Self-esteem scale.

This study's results are consistent with Bienvenue's interpretation. They are also consistent with the supposed value of making schools more responsive to Native standards of behaviour (cf., Ledlow, 1992). If educators were to reshape schools structured by Anglo norms to fit better with Native young peoples' experiences, more

positive Native academic self-concepts might result. Studies such as Cockerham and Blevin's (1976) or Wall and Madak's (1991), each of which showed that Native students had higher self-esteem in such schools, are also consistent with the goal of making schools more "Native-friendly." All of this evidence, however, is inadequate to test the causal relationships implied in Bienvenue's formulation; to test the interpretation, one would require experimental studies.

Relationships Between Ethnic Identity and Self-Esteem

The overarching goal of this study was to examine links between ethnic identity and self-esteem. The three-factor model provided a structure for conceptualizing ethnic identity. Alone, it did not imply clear hypotheses about the relationships between ethnic identity and self-esteem. To develop hypotheses, I turned to three different theoretical frameworks that provide explanations for the origins of self-esteem. Those models were (a) identity theory (a strong identity provides a foundation for strong self-esteem), (b) symbolic interactionism (self-esteem follows from "reflected appraisals," the internalized perceptions of others), and (c) a Jamesian perspective (self-esteem is the product of one's evaluations and aspirations). In the following, I discuss results for each hypothesis, with the hypotheses grouped by the theoretical model that led to them.

Identity Theory. I developed two hypotheses about relationships between ethnic identifications and self-esteem. The hypotheses were based on identity theory's assumption that a strong identity is associated with strong self-esteem. The first was that Native identification would be positively correlated with self-esteem. The second hypothesis was that Anglo identification would be positively associated with self-esteem.

Native youth face two contrasting and sometimes conflicting cultural influences, those of their heritage, and those of the dominant culture. Conflicts between the two are supposed to make it more difficult for Native youth to form an ethnic identity, at least as compared with their dominant culture peers. Identity theory predicts that a strong identity will be associated with high self-esteem. In this way, identity theory implies that mastering the challenges of forming a coherent ethnic identity is a significant determinant of Native adolescents' self-esteem. Chapters 1 and 2 described the underlying reasoning.

Identity theory does not imply that one ethnic identification is better than the other. Thus, the hypotheses implied that Native identification and Anglo identification exert independent influences on self-esteem. Young people with strong Native and Anglo identities should have higher self-esteem than those with only one or the other. In turn, individuals with only a single strong ethnic identification, either Native or Anglo, should have higher self-esteem than those with no strong ethnic identification.

These results did not support the idea that the challenges to identity formation that Native youth experience at the juncture of their heritage and the dominant culture are important influences on their self-esteem. Their success in forming an Anglo identity was associated with Native young peoples' self-esteem, but the strength of their Native identity was not. Results showed positive correlations between Anglo identification and two of the three self-esteem measures, but no significant correlation emerged between Native identification scores and any of the self-esteem measures.

Native youth cope with “culture conflict” in a variety of ways. They forge ethnic identities representing all possible permutations of Native and Anglo identities. A part of those permutations, Native identity, was unrelated to self-esteem. Thus, the way that Native youth cope with “cultural conflict,” at least in terms of forming an ethnic identity, does not appear to be a significant issue for their self-esteem, at least among the Native youth participating in this study.

This study’s results were not consistent with Zimmerman et al.’s (1996) study of Native identification. Zimmerman et al. (1996) found a positive correlation between Native identification and self-esteem. Measurement differences may account for the discrepancy between their results and this study’s results. Zimmerman et al.’s (1996) measure encompassed several dimensions. For example, questions about interest in Native culture included the item, “I am proud to be a Native American” (Zimmerman et al., 1996, p. 299). That item seems like a measure of group-esteem. In this way, the measure mixed constructs, identification and group-esteem, for example, that the three-factor model kept separate. Therefore, Zimmerman et al.’s (1996) measure of Native identification is not directly comparable to this study’s and neither are the respective results strictly comparable.

The current results were only partially consistent with Oetting and Beauvais’s (1990) results. The positive association I observed between Anglo identification and self-esteem matches Oetting and Beauvais’s (1990) results. The lack of association between Native identification and self-esteem does not. Measurement inconsistencies cannot account for the discrepancy; I based this study’s ethnic identity measures on their

measures. Sampling issues may account for the differences, but evaluating this possibility is difficult. Oetting and Beauvais offered very little description of their sample, save that participants were high school students. Sampling issues are discussed later, as part of consideration of this study's limitations.

The results are consistent with those of one existing study. Sanchez and Fernandez (1993) used a bidimensional framework to measure Hispanic and American identification in a sample of Hispanic adolescents in the US. They found that American, but not Hispanic, identification was associated with respondents' self-perceived stress. This study's results showed Anglo identification, but not Native identification, was associated with Native youths' self-esteem.

Symbolic Interactionism. The third hypothesis predicted a direct link between group-esteem and self-esteem. This hypothesis follows from the notion that being part of a devalued group is a challenge to self-esteem. The hypothesis grew out of a symbolic interactionist perspective on self-esteem (Harter, 1996; Lal, 1995). A symbolic interactionist perspective suggests that one's self-esteem follows from others' evaluations of oneself; reflected appraisals form the basis of self-esteem. In the symbolic interactionist model, one must perceive others' beliefs and internalize them, come to make them one's own. Group-esteem was the construct I set forth as reflecting Native youths' internalized evaluations of the Native group of their heritage.

Results supported this hypothesis. Although Native youths' identification with their Native heritage was not related to self-esteem, their evaluation of their Native heritage was. Group-esteem scale scores were positively correlated with scores on the

Rosenberg Self-esteem scale, the FOTS Academic Competence scale, and the FOTS Social Competence scale. The correlations were moderate and uniform, ranging from about .25 to .30.

Group-esteem was not, however, as strongly associated with Native youths' self-esteem when their Native identification was strong. That is, an interaction with Native identification qualified the main effect for group-esteem. Group-esteem accounted for self-esteem most clearly when Native identification was low. The symbolic interactionist perspective alone does not account for this differential effect. Therefore, the interaction importantly qualifies support for a symbolic interactionist perspective to fully account for links between ethnic identity and self-esteem.

A Jamesian Perspective. According to a Jamesian perspective on self-esteem, evaluations of one's attributes affect one's self-esteem, but only to the extent that one deems the attributes important. The fourth hypothesis predicted an interaction between Native identification and group-esteem. I expected that the association between group-esteem and self-esteem would grow stronger as Native identification grew stronger. Exactly the opposite pattern emerged. Strong Native identification was associated with a weaker association between group-esteem and self-esteem than was weak Native identification. That is, the group-esteem of Native adolescents was most closely associated with their self-esteem when Native identification was weak.

Previously, theorists have discussed group-esteem and heritage identity as interactive influences on ethnic minority youths' self-esteem, but they have debated the form of the interaction. Sellers and colleagues (1997) describe how some theorists

believe that a strong ethnic identification is a risk factor, increasing young peoples' vulnerability to racism and prejudice, while other theorists posit that ethnic identity itself will protect youth against the invidious effects of racism.

Through a Jamesian perspective on self-esteem, I could predict how a Native identity might act as both a risk and a protective factor. According to a Jamesian perspective on self-esteem, peoples' evaluations of their attributes relate directly to their self-esteem but only insofar as those attributes are important to them. One must aspire to a positive evaluation of some aspect of self before such evaluation will affect self-esteem. I equated group-esteem with evaluation of an aspect of self, one's Native heritage. Native identification was analogous to aspiration. The stronger one's Native identification, the more important was one's Native heritage. Following this framework, the hypothesis was that Native youths' group-esteem would be related to their self-esteem only insofar as they had a strong Native identification. This implied that the strength of association between group-esteem and self-esteem would itself be directly related to Native identification. The connection between group-esteem and self-esteem among Native youth would grow stronger as their Native identification grew stronger. A strong Native identification would be a risk factor for self-esteem if group-esteem were low. On the other hand, Native youths' self-esteem would benefit from a strong Native identification if group-esteem were high; in that case, Native identification would be a protective factor.

The results ran exactly counter to this hypothesis. The association between Native youths' group-esteem and self-esteem, as illustrated in Figures 6a through 8c, did

appear to depend on their level of Native identification. However, instead of the association being stronger at higher levels of Native identification, the association between group-esteem and self-esteem seemed weaker at higher levels of Native identification. In other words, a strong Native identification appeared to act only as a protective factor, buffering the effects of group-esteem on self-esteem.

Accepting these empirical results depends on a reasoned willingness to relax traditional rules for the evaluation of statistical results. Observed probability levels for the interaction term were greater than .05 in each case. A skeptical reader might conclude that this study provides no evidence linking Native identification to Native youths' self-esteem. In any case, the effect size associated with this interaction was small, explaining only an additional 1 to 2% of the variance accounted for in the regression equations.

Summary

Of the four hypotheses tested in this study, results supported two and failed to support two others. Hypotheses predicting an association between Anglo identification and self-esteem and between group-esteem and self-esteem received support. Results did not support hypotheses about relationships between Native identification and self-esteem or between a Native identification by group-esteem interaction and self-esteem. More important than the fate of any single hypothesis, none of three theoretical perspectives accounted for the overall pattern of results. Therefore, one must devise alternative frameworks to account for relationships between factors related to ethnic identity and self-esteem.

Alternative Perspectives

The three-factor model that guided the formulation of the principal constructs considered in this study reflected two main ideas. The first was that the existence of dual cultural standards challenges Native youth. The second idea was that minority status exposed Native young people to devaluation and disparagement by the dominant culture. Overall, the pattern of results suggested that the former issue was not a significant determinant of Native adolescents' self-esteem. The latter idea, about minority status, however, may account for the entire pattern of results.

Native youth are socialized into the culture of their heritage and into the dominant culture. Thus, they cope with contrasting and conflicting cultural standards. In the face of contrasting cultural norms, finding their way to a coherent ethnic identity was supposed to be particularly difficult for Native youth. Since no main effect emerged for Native identification as a correlate of Native young peoples' self-esteem, their success in meeting the challenge of developing an identity did not appear to be an important, independent determinant of Native young peoples' self-esteem. The strength of their Anglo identity was, however, directly related to their self-esteem.

The second important idea informing the three-factor model was that being a member of a devalued minority group is a significant challenge to Native young peoples' self-esteem. In contrast to the previous idea, all of the evidence was consistent with this supposition. Results showing main effects for group-esteem, Anglo identification, and weaker evidence for a Native identification by group-esteem interaction can all be

interpreted in light of how these factors influence Native youths' coping with being part of a devalued, disparaged minority group.

Group-esteem and Minority Status. The main effect for group-esteem clearly suggests that being a member of a devalued group is potentially a threat to Native adolescents' self-esteem. If exposure to prejudice and stereotypes engenders a low group-esteem, low self-esteem is the apparent result. The observed association also implies that positive messages about Native people, if internalized by Native youth, will buttress their self-esteem. This result supports the symbolic interactionist point of view that others' evaluations of oneself, if internalized, influence one's self-evaluations. The other results, however, suggest that Native youth are not merely passive recipients of the effects of group-esteem; they can marshal ethnic identifications to buffer the negative effects on self-esteem of being a member of a disadvantaged minority.

Anglo Identification and Minority Status. Minority status does not only expose Native youth to prejudice and stereotypes. It also makes them part of a less privileged group in society. In chapter 2, I argued that minority status makes ethnic identity salient to Native youth. The ethnic identity made salient to Native youth may not be a Native identification but an Anglo ethnic identity. Minority status may not heighten Native youths' sense that they are Native as much as it increases their awareness that they are not of the dominant culture. Socialized into the dominant culture, Native youth may see that individuals to whom advantages accrue are usually individuals of the dominant culture. Perceiving oneself to be different from those to whom advantages accrue may challenge self-esteem.

To cope with a sense of being different from the dominant majority, Native youth might reduce their identification with their Native heritage. That is not the strategy they employ. If Native youth did reduce their sense of difference from the Anglo majority (and thus improve their self-esteem) by reducing their Native identification, then a negative correlation between Native identification and self-esteem would have emerged. That was not so; no correlation between Native identification and self-esteem was evident. As well, Native and Anglo identifications are independent; reducing one's Native identification would not necessarily reduce a sense of being different from the dominant culture.

Instead, Native youth appeared to be reducing their sense of difference from the dominant majority by developing a dominant majority (i.e., Anglo) identification. In other words, they did not reduce the facets of themselves that made them different from the Anglo majority (their "Nativity") as much as they increased their "sameness" to the dominant majority by developing an identification with Anglo culture.

This suggestion explains a main effect for Anglo and not Native identification as a correlate of self-esteem. The effect was similar to the one Sanchez and Fernandez (1993) observed among Hispanic youth. By developing an identity based on their socialization into Anglo culture, Native youth may reduce their sense of differentness from Anglo culture (or, increase their sense of sameness). In this way, they may protect, even enhance, their self-esteem.

According to this interpretation, anything that reduces a sense of differentness from the privileged group (or increases a sense of "sameness") would likely serve to

strengthen self-esteem. This interpretation is consistent with Bienvenue's analysis about challenges to Native youths' self-esteem being most important in areas shaped by Anglo norms. That is, challenges to self-esteem are most salient when a sense of difference from Anglo norms is most salient. A sense of difference is most salient where Anglo norms form the basis of evaluation.

This supposition, about the centrality not of heritage *per se* but of differentness, accounts for the assumed importance of ethnic identity across diverse ethno-cultural groups. Worlds of difference separate Hispanic, African-American, and Native cultures. Similar diversity exists among the groups falling under the label, "Native." Yet, theorists agree that ethnic identity is important for all of them. If that is so, it may be that the issue they share in common is not being of the dominant culture, not being of the privileged group. To the extent that they are aware of being not part of the privileged group, they may experience reduced self-esteem.

This interpretation is consistent with other observations, as well. Developing an Anglo identification may not be the only way to reduce a sense of differentness. Any context that reduces the salience of Native young peoples' undesired "apartness" from the dominant culture should strengthen self-esteem. Besides being consistent with Bienvenue's hypothesis that in areas where Anglo cultural norms are of reduced relevance, Native youths' self-esteem is higher, this interpretation is also consistent with other results (e.g., Cockerham & Blevins, 1976; Wall & Madak, 1991). For example, Trimble (1987) and Holmgren et al. (1983) discussed "alienation." They showed higher alienation was associated with poorer outcomes among Native respondents. If one is not

alienated or set apart from the dominant group, one's outcomes are more positive than if one has a sense of difference or alienation from the dominant culture.

Overall, these results are consistent with my interpretation of the main effect for Anglo identification but strengthened confidence awaits further study. To examine further this notion about the importance of differentness, one could examine the association between Anglo identification and self-esteem in different contexts. In contexts that heighten Native young peoples' sense of difference from the dominant culture, the connection between Anglo identification and self-esteem should be strong. The school context in this study was clearly of the dominant culture; it was a school mostly staffed by Anglo teachers and administrative staff. The only predominantly Native group of staff people was a small group of counselors' assistants. The Anglo-dominated setting would likely enhance Native adolescents' sense of difference. Yet, about half the school's population was Native; in a school setting with proportionately fewer Native students, the correlation between Anglo identification and self-esteem should be even stronger.

In another context, one that did not accentuate Native students' differentness, the connection between Anglo identification and self-esteem should be less strong. In such a context, a sense of differentness would not be salient; the functional value of Anglo identification would be reduced. A school staffed and attended by predominantly Native individuals may provide such a context. Schools are, however, a dominant culture institution, whatever their staff or student complement (Chrisjohn et al., 1988). Thus, for example, examining the association between Anglo identification and self-esteem after

Native youth had been away from school for a lengthy period, say, after a summer spent in a traditional setting on reservation, may provide a better context in which to test this idea.

Native Identification and Minority Status. As discussed in chapter 1, those concerned with Native youth believe that Native identification *per se* is a significant correlate of Native young peoples' self-esteem. Thus, identity theory suggested a main effect of Native identification as a predictor of Native adolescents' self-esteem. The results of this study did not reveal the predicted main effect. Alone, a strong Native identification does not appear to affect self-esteem.

Some evidence emerged, however, to suggest a protective role for Native identification. Minority status exposes Native youth to prejudices and stereotypes. Native identification may protect Native adolescents' self-esteem by reducing the importance of that exposure. The effect was revealed in that Native identification moderated the relationship between group-esteem and self-esteem. As Native identification increased, the influence of opinions about Natives internalized by Native youth (i.e., their group-esteem) decreased.

Native youths who had a weak Native identity were strongly affected by their level of group-esteem. If these youths' group-esteem was low, if they had internalized a negative view of Natives, their self-esteem was also low. If Native young people with weak Native identification had positive group-esteem, their self-esteem was also positive, equal to that of their Native peers. On the other hand, the self-esteem of those with a strong Native identification was only weakly associated with their level of group-esteem.

The observed effect was not strong, accounting for only 1 to 2% of the variation in self-esteem scores, but it was consistent across the three measures of self-esteem. In no case, however, did the observed interaction meet traditional levels of statistical significance. McClelland and Judd's (1993) suggestion that the lack of jointly extreme cases in naturalistic studies -- and the resulting difficulties in detecting interactions -- may account for this. Further research, to replicate the effect in other samples is a logical step, before searching for substantive explanation of the small effect. Nonetheless, it is tempting to hypothesize that if Native identification has any effect on Native youths' self-esteem, it is to protect Native young people from the potentially deleterious effects of low group-esteem.

Summary. Of three theoretical frameworks accounting for the origin of self-esteem, only a symbolic interactionist perspective, that self-esteem would be affected by internalized perceptions of one's group membership, received support in this study. This was revealed in the positive association between group-esteem and each of the measures of self-esteem. The symbolic interactionist perspective, however, could account for neither a positive association between Anglo identification and self-esteem nor for an interaction effect between Native identification and group-esteem, respectively. Instead, new theoretical models focused on minority status, not issues of identity confusion, need to be formulated. This study's results suggest that by making minority status and the attendant devaluation and prejudice the centre of theoretical models, researchers will begin to explore the central issue related to ethnicity that affects Native young peoples' self-esteem. If minority status is the important issue, theoretical

models should equally well account for results of studies focussed not only on Native youth, but also on youth of other devalued minority groups.

Study Limitations

The results of this study suggest new directions for theorizing and research. Further studies that address some design issues could strengthen confidence in these results and their generalizability. The inclusion of additional variables could help to illuminate what effects are related to minority status and ethnicity and what effects are more accurately attributed to other factors. In this section, I discuss some measurement issues that may have affected the results. I also discuss how theorizing about ethnic identity should come to encompass additional variables such as socioeconomic status and gender.

Measurement issues may have affected some of this study's results. I took care to evaluate the validity of the measures, particularly their cross-cultural generalizability. The evidence for the cross-cultural applicability and validity of the measures was clear. The presence of correlated error terms in several models, however, may temper confidence in the measures. Correlated error terms suggest that some third factor may influence responses to the items involved (Wheaton, 1987). For example, in the Native identification scale, the CFA results suggested correlated error terms between the two items addressing anticipated adult behaviours. Besides ethnic identification, the two items may tap some additional, unknown construct. The items may be redundant; dropping one may improve the scales' characteristics. No model's correlated error terms were so numerous as to suggest that a substantively different model would better account

for item responses. Moreover, internal consistency statistics for each scale suggested that each was at least an adequate measure. Nonetheless, replication of the factor results in other samples is the only way to demonstrate the validity of the respecified factor structures.

A causal relationship between each factor and Native youths' self-esteem was implicit in each hypothesis and in the alternative interpretation offered for the results. This study's design allowed only the observation of correlation; the results justify no causal inference. To show causality, I would at least need to add a temporal dimension, to show that group-esteem, Anglo or Native identification preceded self-esteem. Only longitudinal study could accomplish that. The systematic manipulation of factors possible in experimental studies would also help to produce evidence for the evaluation of causal hypotheses much stronger than available in this naturalistic study. The cross-sectional and naturalistic design was a logical starting place in an area that has received so much attention and yet so little study. Future efforts employing longitudinal and/or experimental designs would let researchers more adequately evaluate causal hypotheses.

Two issues related to sampling challenge the validity or generalizability of this study's results. In the methods section, chapter 4, I discussed that this sample was chosen as a reasonable one with which to test the study hypotheses. I believed that I would observe adequate variability for each study construct to allow an adequate test for each hypothesis. The joint distribution of Native identity and group-esteem illustrated in

the results section suggested that there might have been adequate variability. I may not, however, have observed the full range of possible variation.

The study hypotheses described relationships between ethnic identity factors and self-esteem. The reason for testing those links was related to self-esteem's assumed relationship to important outcomes among Native youth. Included among those outcomes was academic underachievement and early school-leaving. Yet, by definition all of this study's Native participants attended high school. So far, they had avoided one negative outcome -- premature withdrawal from school -- that this study was designed (eventually) to account for. In this way, I may have systematically biased the sample in favour of Native youth with strong Native identification or positive group-esteem. Similarly, by choosing an Anglo-dominated setting, I may have biased the sample in favour of young people with strong Anglo identifications.

The joint distribution of Native identification and group-esteem (Figure 5) suggests that the sample included some young people with low Native identification (inspect the figure with an eye for the marginal distributions or each variable). It also suggests that there was variability in the group-esteem measure, but that there were not many adolescents in the sample with low group-esteem. Moreover, the sample did not include a substantial number adolescents manifesting low levels of both variables, Native identification and group-esteem. It is not certain that including such cases would alter the direction of any of the findings, but likely it would have changed their strength. Future efforts including Native young people evidencing a wider range of outcomes

(i.e., with samples based not only on school attenders) may challenge some of the present results.

Results provided either no support or only weak support for hypotheses including Native identification as a correlate of self-esteem. This may reflect a problem less easily solved than the above sampling issue. All the Native young people in this study displayed some Native identity, their scores on the Native identification scale aside. To be included in the Native group, each respondent must have checked the box, "Native American," and no other. That is, Native youth reporting a low Native identification showed a weak stake in, or commitment to a Native identity but they did place themselves in the category "Native American." In chapter 2, I argued that ethnic self-labeling does not reveal the essence of individuals' ethnic self-construal. At the same time, people who self-label or self-categorize as members of an ethnic group must see themselves as part of that group, whatever the limitations of their ethnic self-construal (Phinney & Alipuria, 1996).

To observe the fullest range of Native identification scores among Native youth, an approach entirely different from the one I employed may be required. Somehow, one wants to identify the group of individuals who are of a Native heritage (up to, say, their own parents) and yet who do not self-identify as of a Native group. By "objective" criteria, researchers might count such individuals as Native and yet, such individuals may genuinely have no Native identification. For example, one individual in this study self-labeled as "human," but self-categorized as Native. If she had categorized both her parents as Native and herself as something different (e.g., "other," writing in "human" as

her self-categorization), she would be an example of the cases I describe. I do not know whether many such people exist or how one would find them. They, however, would be the ones who occupied the real bottom end of the distribution of Native identification.

The final important limitation of this study is its failure to include additional variables that may account for a significant proportion of inter-individual variation in self-esteem. Two candidate variables are socioeconomic status and gender. Anglo identification, for example, may be only a rough proxy for socioeconomic status. As one's family collects the spoils of socioeconomic success in the dominant culture, one may be more likely, for example, to endorse that one's family is a "success in the Anglo way of life." Socioeconomic status itself may be positively associated with positive mental health outcomes such as self-esteem (Alvidrez, Azocar & Miranda, 1996; Cheadle et al., 1994; Frable, 1997; Hauser, 1994; Negy & Woods, 1992).

Gender may influence some relationships observed in this study. For the same reason that one expects Native youth to have lower self-esteem than young people of the dominant culture, females may have lower self-esteem than their male peers. All else being equal, females get fewer of the "good things" than do males, at least in the dominant culture. Therefore, gender may account for some differences between individuals in levels of self-esteem (Crain, 1996; Dukes & Martinez, 1994; Frable, 1997; Martinez & Dukes, 1987).

Cross-culturally, these issues may become complicated. For example, the relationship between genders may be different in some Native groups than in the dominant culture. Females, for example, may receive relatively more respect in some

Native groups than do their female peers of the dominant culture. Females from such a culture may then lose more by developing a dominant culture identity than they might gain. They might gain some self-esteem by reducing their sense of differentness from the more privileged dominant group, but they may lose some self-esteem by identifying with a culture in which females are less well-respected than in their culture of origin.

Other variables may influence either adolescents' ethnic self-concepts, their self-esteem, or even both. By the time young people enter adolescence, a wide range of developmental experiences has influenced them. Parents are important influences in young peoples' lives, beginning at the earliest ages (Goldberg, 1991; Goldberg, Gotowiec, & Simmons, 1995). Parents influence children's ethnic attitudes (Aboud & Doyle, 1996). Some parents, particularly ethnic minority parents, discuss issues of prejudice with their children, and teach their children how to cope (Phinney & Chavira, 1995). It is possible that those parental influences may be strong influences on children's coping with issues around ethnicity, long before adolescence. More distal influences are also possible. For example, Native parents themselves may be affected by the prejudicial attitudes they experience. Decrements in Native parents' own self-esteem may influence their parenting practices, which in turn may influence young peoples' self-esteem.

Earlier, I suggested that peers are among the socializing influences in young people's lives. The nature of adolescents' peer interactions may importantly influence their ethnic attitudes, their ethnic identities and their self-esteem. Peer interactions will likely influence a young Native person in a school setting such as this study's, a school setting populated by Anglo and Native peers. For example, a socially skilled young

person of Native heritage may be well accepted by her peers, both Native and Anglo. As a result, she may develop both a strong self-esteem and a strong Anglo identity. In this way, the observed correlation between Anglo identity and self-esteem may, in fact, be attributable to third variables such as peer acceptance.

Such complications, difficult to understand at best, may be specific to the nature of the respective cultures in contact. Therein lies the reason for not including gender, socioeconomic status, alternative developmental factors, or peer influences as factors in this study. As I have repeatedly stressed, theorizing about ethnic identity and the psychological effects on the individual is in its infancy. As it develops, it must come quickly to encompass important human factors such as gender, socioeconomic status, and peer influences. As yet, the field is not ready for such basic complications. We do not know with any real confidence whether factors related to ethnicity do determine self-esteem, let alone what alternative factors may complicate or account for those relationships. The issue is a concrete demonstration of the current inadequacy of existing formulations regarding the psychological manifestations of ethnicity.

Conclusions

Ethnicity exists within systems of human relationships. It depends on our propensity to group ourselves. It also depends on our inclination to place some people as members of an in-group and some as members of an out-group. The results of this study suggest that, concerning ethnicity, Native youth are challenged not by where they place themselves, but by where they are placed. Native young people do not appear to have difficulty resolving an identity for themselves at the confluence of their heritage and the

dominant culture, placing themselves in one, the other, or both. At least, their apparent solutions to that problem do not appear to be directly related to their self-esteem. Native adolescents are placed into a minority group, by circumstance and by an oppressive dominant culture. The manner in which Native youth cope with their membership in a devalued and disparaged minority group is related to their self-esteem. The way that Native young people cope with their minority status also may be related to their school achievement, their success in avoiding the dangers of substance abuse, and their ability to skirt depression and suicide.

To justify this study, I described how ideas about Native young peoples' ethnic identities had influenced theorizing about their coping with the challenges of successful development. Most of this discussion focussed on the results' implications for theorizing. Theory was not the only thing influenced by prevalent assumptions about ethnic identity. I also pointed out that ideas about the importance of Native adolescents' ethnic identities had a substantial impact on preventive programs to help Native youth. These results, particularly if supported by follow-up research, have implications for such programs.

Strengthening Native young peoples' sense that they are Native may not be the best focus for prevention programs. Such efforts will not hurt Native adolescents, but they may not reap direct benefits for self-esteem. Helping professionals may best deploy efforts in service of teaching Native young people about the pride they deserve to take in their heritage, their group-esteem. Teaching Native young people about the heroes from their history may be helpful in buttressing Native adolescents' deserved pride in their

heritage. As well, highlighting the contemporary success of people such as Native recording artists could give Native adolescents very powerful role models, Native individuals who have achieved mainstream success without sacrificing their Native identities.

This study's results show that Native youth need not sacrifice a Native identity to develop an Anglo identity. At the same time, the results imply that a strong Anglo identity may help to buttress Native young peoples' self-esteem. Teaching Native youth "bicultural competence," (LaFromboise, Coleman & Gerton, 1993; LaFromboise & Rowe, 1983; Schinke, Botvin, Trimble, Orlandi, Gilchrist & Locklear, 1988) concrete strategies for coping in the world of the dominant culture, may also enhance their self-esteem. To foster a Native identity among Native young people, Lefley (1974a) achieved positive results with a mentorship program. Older Native people were engaged to teach Native youngsters about Native heritage. Similar programs pairing Native young people with mentors of the dominant culture, not as replacements for Native mentors but as supplements, may also foster an adaptive Anglo identification among Native youth.

These suggestions are all about teaching Native youth to cope with their minority group status. Teaching Native young people to have strong group-esteem and how to cope in the dominant culture, how to develop an Anglo identity, may be the most immediate way to equip them with the tools they need to cope with the challenges of being members of a devalued and disparaged minority group. There are, however, other perspectives, other alternatives for intervention.

Intervention efforts designed to change the circumstances with which Native young people must cope may be more effective than efforts to enhance their coping skills. The most effective strategy to help Native youth may be to make Native groups into respected and valued minority groups. Efforts to change the status of Native people may pay great dividends, protecting Native youth from the heightened risk for academic underachievement, substance abuse and suicide.

In Canada and in the US, Native people are the poorest, most disadvantaged groups (Barsh, 1994; Harjo, 1993; Paisano, 1993). Native people have been subject to zealous efforts to destroy their cultures (Matthiessen, 1991; Wright, 1992; York, 1990). The attempts have met with some success, but Native cultures survive. Historical injustices are not merely issues for abstract political debate. Native young people are falling victim to their legacy. Good-faith efforts, by non-Natives and Native alike, to redress historical and contemporary injustices, to put Native peoples back on prosperous and healthy roads, can only reap benefits for their most precious resource, their young people.

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Appendix 1: Information Letters

LETTER TO PARENTS

TOWN High School Office
February 16, 1996

Dear Parent or Guardian:

On Friday, February 23rd, we will be administering the Voices of Teens Survey in all tenth and 11th grade homerooms. The survey is designed by professional researchers from Toronto who have an interest in changing teen attitudes and concerns. There are questions about attitudes towards friends and family, school, career and other teen concerns. The survey is confidential; students' names are never used. Students receive a five dollar Wal Mart gift certificate on completion of the survey. We receive a synopsis of the survey results which lets us know if we are on track with our academic and career advising.

We have done this survey for the past four years. However, if you do **not** want your student to take part in the survey, please send a note to the office or call us at XXX-4138.

Sincerely,

Janet Conroy
Assistant Principal

Note: This letter appeared on letterhead from the high school

STUDENT CONSENT FORM

**STUDENT ASSENT FORM FOR
THE VOICES OF TEENS SURVEY**

You are being asked to participate in a study which will help to determine the needs and characteristics of youth. This study is being conducted by Dr. Morton Beiser of the Clarke Institute of Psychiatry and the University of Toronto, and by XXXX High School .

If you agree to participate in the study, you will be asked to complete a questionnaire about your thoughts, feelings, and attitudes, as well as questions about alcohol. All grade ten and eleven students at XXXX High School are being invited to take part in this effort.

The possible risks of your involvement in this study are minimal and include slight psychological discomfort such as invasion of privacy. You will receive a five-dollar gift certificate for your participation.

Members of the study staff are here today and will answer any questions you may have about the study. All information you give will be kept **CONFIDENTIAL**. Further information about this project may be obtained by contacting Ms. J. Conroy at XXX-4159 or Dr. Morton Beiser or Mr. Andrew Gotowiec at 416-979-6903 (You may call collect).

AUTHORIZATION: I have read the above and understand the discomforts, inconveniences, and risks of this study. I understand that if I refuse to participate or withdraw at any time in this study, my role in school will not be affected in any way.

I (print your name) _____ agree to participate in this study

OR

I (print your name) _____ do not want to participate in this study

Your Signature: _____

Date of Birth: _____

Today's Date: _____

Witnessed: _____ Date: _____

DEBRIEFING FORM

Thank you again for participating in the Voices of Teens Project. We will be using your answers and the answers from all of other Voices of Teens participants to try to understand what makes teenagers start to drink, continue to drink, or never even start drinking. Also, we will be trying to understand what sorts of things happen when teenagers drink or don't drink. When we talk with people about what we find, we will never identify you or any Voices of Teens participant by name, so your answers will always be confidential.

Sometimes answering questions such as these can make you think of things you might want to talk about with someone. If that should happen, below is a list of people in the community who have said they would be happy to talk about any thoughts or feelings you might have. Feel free to call or visit any of us.

We really appreciate your taking time to answer our questions!

Ms. Jan Conroy	Assistant Principal	XXX-4159
Mrs. Amy Purdy	Dean of Students	XXX-4132
Ms. Laverne Tsosie	Counselor Assistant	XXX-4188
Mrs. Stacy Wadleigh	Principal	XXX-4122
XXXX XXXXXX Institute	Counselors	XXX-5113
Dr. Morton Beiser	Project Director	(416) 979-4988

Note: This form appeared on Clarke Institute of Psychiatry Letterhead

Appendix 2: Ethnic Self-label Rating Form

The table below presents three columns.

Each line in the leftmost column is a directly quoted response given by an adolescent when asked, "What is your ethnic group or tribe?"

The rightmost column lists a series of categories and corresponding numbers.

For each response, please identify the category which best corresponds to the label listed. Enter the number of your choice in the center column.

Please note that the labels are direct quotes from completed questionnaires. Therefore, there are some spelling mistakes, and some lines repeat other lines, just with different spellings.

Some lines contain two or more designations.

- If the two designations are simply different names for the same ethnic group or tribe (e.g., "British / English"), try to choose the single best category from 1 through 5.
- If the two designations refer to more than one ethnic group or tribe (e.g., British / Italian), choose '6' for mixed, or combination of categories.

If a designation does not fit any of the categories 1 through 6, choose "7" for other.

The categories:

- 1 = Native American
- 2 = Hispanic or Mexican American
- 3 = Asian
- 4 = White or Anglo
- 5 = Black or African American
- 6 = Mixed or combination
- 7 = other

Label	Choice	List of Categories
AMERICAN		1 = Native American 2 = Hispanic or Mexican American 3 = Asian 4 = White or Anglo 5 = Black or African American 6 = Mixed or combination 7 = other
ANGLO		
ANGLO (WHITE)		
ANGLO / NAVAJO		
ARIAN		

Label	Choice	List of Categories
ARIAN NATION		1 = Native American 2 = Hispanic or Mexican American 3 = Asian 4 = White or Anglo 5 = Black or African American 6 = Mixed or combination 7 = other
BLACK		
CAUCASIAN		
CAUCASIAN / WHITE		
CAUCASION		
CREAM OF WHEAT		
DINE		
DINE (NAVAJO)		
HISPANIC		
HISPANIC / WHITE		
HOPI NATIVE AMERICAN		
HOPI / ESKIMO		
HOPI / NAVAJO		
HUMAN		
INDIAN		
INDIAN / MEXICAN		
ITALIAN AMERICAN		
MEXICAN / AMERICAN		
MEXICAN / ANGLO		
MULATTO		
N AMERICAN (NAVAJO)		
NAT. AMERICAN		
NATIVE AM		
NATIVE AMERICAN		
NATIVE AMERICAN (NAVAJO)		

Label	Choice	List of Categories
NATIVE AMERICAN NAVAJO		1 = Native American 2 = Hispanic or Mexican American 3 = Asian 4 = White or Anglo 5 = Black or African American 6 = Mixed or combination 7 = other
NATIVE AMERICAN / WHITE		
NATIVE AMERICAN: SIOUX		
NAVAHO		
NAVAHO / MEXICAN		
NAVAJO-DINE		
NAVAJO-NATIVE AMERICAN		
NAVAJO		
NAVAJO (NATIVE AMERICAN)		
NAVAJO DINE		
NAVAJO NATIVE AMERICAN		
NAVAJO / HISPANIC		
NAVAJO / NATIVE AMER		
NAVAJO / NATIVE AMERICAN		
NAVAJO / NATIVE INDIAN		
NAVAJO / SOUTHERN UTE		
NAVAJO / WHITE		
PURE WHITE		
SAMOAN / ITALIAN		
WHITE		

Label	Choice	List of Categories
WHITE (CAUCASION)		1 = Native American 2 = Hispanic or Mexican American 3 = Asian 4 = White or Anglo 5 = Black or African American 6 = Mixed or combination 7 = other
WHITE ANGLO		
WHITE MALE		
WHITE MAN		
WHITE PRIDE		
WHITE / ANGLO		
WHITE / HISPANIC		
WHITE / HOPI / SIOUX		

Appendix 3: Survey Instrument

VOICES OF TEENS SURVEY

TO ALL STUDENTS:

We are from the University of Toronto in Canada. We are asking you to participate in a study called the Voices of Teens Project. We want to understand how teenagers change as they get older. We will be asking you about things in your life that both help and work against you. We want to learn more about your family, friends, school, and about you yourself, as well as your views on alcohol. When we learn about these things, we hope to come up with ways to make it easier for all teens as they grow up.

When you are answering the questions, you can skip any questions you don't want to answer. If you feel uncomfortable, you can stop at any time. No one outside of the Project will know what you tell us on these pages. When we talk about what we learn from this study, we will talk about all teens who took part, not specific people. Your identity will never be known.

Your response will be kept SECRET. There are NO RIGHT OR WRONG ANSWERS. This is NOT A TEST. We will store the consent sheet - the only sheet with your name on - in a different place from your survey. Your name will not be on the survey so no one will know your answers. Please feel free to answer exactly as you think and feel.

Your honest responses will help us, your community, and other communities to better understand the needs of teenagers so that better and more helpful programs can be developed.

Your help is VERY IMPORTANT to us.

THANKS, we really appreciate your participation!

INSTRUCTIONS

1. IF THE QUESTION ASKS YOU TO PICK YOUR CHOICE, CIRCLE THE NUMBER OF YOUR ANSWER:

1. I go to school in 1 = Seattle
2 = TOWN
3 = Kansas City

2. IF THE QUESTION ASKS YOU TO FILL IN A BOX, WRITE IN YOUR ANSWER:

2. My school is located in:

--

START HERE:

TODAY'S DATE:

Month	Day	Year

GENERAL BACKGROUND ABOUT YOU AND YOUR FAMILY

1. What is your date of birth?

Month	Day	Year

2. Where were you born?
(Please write in the Town & State in the box)

3. What grade are you in? CIRCLE YOUR GRADE 9 10 11 12

4. How old are you today? CIRCLE YOUR AGE 12 13 14 15 16 17 18 19 20 years old

5. What is your sex? CIRCLE WHICH 1= Male ... 2= Female

6. Please write the name of your ethnic group or tribe in the box:

7. In general, how well do you do in school? In school, I get CIRCLE YOUR CHOICE
 - 1 = Mostly A's
 - 2 = Mostly B's
 - 3 = Mostly C's
 - 4 = Mostly D's or lower

8. How do you feel about going to school? CIRCLE YOUR CHOICE
 - 1 = I like school very much
 - 2 = I like school quite a bit
 - 3 = I like school some
 - 4 = I don't like school very much
 - 5 = I hate school

9. My highest educational goal is to: CIRCLE YOUR CHOICE
 - 1 = Not finish high school
 - 2 = Graduate from high school
 - 3 = Graduate from tech school/two year college
 - 4 = Get military career training
 - 5 = Graduate from 4-year college
 - 6 = Get Master's, M.D. or Ph.D. degree

10. On average, how many days of school do you miss per semester? CIRCLE YOUR CHOICE
 - a = 1 - 3 days
 - b = 4 - 6 days
 - c = 7 - 10 days
 - d = more than 10 days

11. How many years did you attend boarding school? CIRCLE YOUR CHOICE
 - 0 = I never attended boarding school or
 - 1 2 3 4 5 6 7 8 years

12. How many different schools did you attend in the past 5 years? CIRCLE YOUR CHOICE
 - 1 2 3 4 5 6 7 8 9 10 more

13. How many years did you attend the following Middle Schools? CIRCLE YOUR ANSWER FOR EACH SCHOOL
IF YOU NEVER ATTENDED THAT SCHOOL, CIRCLE "0"
 - 1. XXXX Middle School :
0 1 2 3 4 years
 - 2. XXXXXXXX Boarding School:
0 1 2 3 4 years
 - 3. XXXXXXXX Boarding School:
0 1 2 3 4 years
 - 4. Other (Which?) _____
0 1 2 3 4 years

14. How many years did you attend the following High Schools? 1. XXXX High School :
 CIRCLE YOUR ANSWER FOR EACH SCHOOL 0 1 2 3 4 years
 IF YOU NEVER ATTENDED THAT SCHOOL, CIRCLE "0" 2. XXXX City High School:
 0 1 2 3 4 years
 3. XXXXXXXXXXXX High School:
 0 1 2 3 4 years
 4. XXXXXXXXX High School
 0 1 2 3 4 years
 5. Other (Which?) _____
 0 1 2 3 4 years
15. Compared with your classmates, how well do you do in school? 1 = Much below average
 CIRCLE YOUR CHOICE 2 = Below average
 3 = Average
 4 = Above average
 5 = Much above average
16. How long does it usually take for you to travel between your home and school (one way) in the morning?
 CIRCLE YOUR CHOICE 1 = less than 15 minutes
 2 = between 15 minutes and half hour (30 minutes)
 3 = between half hour and one hour
 4 = more than one hour
17. How do you usually get to school in the morning? 1 = Walk
 CIRCLE YOUR CHOICE 2 = Bus
 3 = Car; I drive myself
 4 = Car; I get a ride
18. Which of the following newspaper do your read regularly? 0 = I don't read a newspaper
 CIRCLE YOUR CHOICE 1 = Arizona Republic
 2 = Lake Powell Chronicle
 3 = Navajo Times
 4 = USA Today
 5 = Other (Which? _____)
19. What are the call letters of the radio station you listen to most? 0 = I don't listen to the radio
 CIRCLE YOUR CHOICE 1 = KNAB
 2 = KXAZ
 3 = KPGE
 4 = KNAU
 5 = KNAV
 6 = Other (Which? _____)
15. My mother is....(Circle the number of all that apply) 1 = Native American
 2 = Hispanic or Mexican American
 3 = Asian
 4 = White or Anglo
 5 = Black or African American
 6 = Other
16. My father is....(Circle the number of all that apply) 1 = Native American
 2 = Hispanic or Mexican American
 3 = Asian
 4 = White or Anglo
 5 = Black or African American
 6 = Other
17. I am....(Circle the number of all that apply) 1 = Native American
 2 = Hispanic or Mexican American
 3 = Asian
 4 = White or Anglo
 5 = Black or African American
 6 = Other

12. In general, would you say your health is: 1 = Poor
 CIRCLE YOUR CHOICE 2 = Fair
 3 = Good
 4 = Excellent
13. Compared to other people your age, do you think you are 1 = Not as healthy as others
 CIRCLE YOUR CHOICE 2 = About the same as others
 3 = Healthier than others

IN THE NEXT QUESTIONS, WE WANT TO KNOW ABOUT THE HOUSE YOUR FAMILY LIVES IN (WHERE YOU SPEND MOST OF YOUR TIME WHEN YOU ARE AWAY FROM SCHOOL).

1. Where do you live? 1 = In TOWN
 2 = On reservation, outside TOWN
 3 = Off reservation, outside TOWN
2. How long have you lived where you do now? 1 = Less than 1 year
 2 = between 1 and 2 years
 3 = between 2 and 5 years
 4 = between 5 and 10 years
 5 = more than 10 years
3. Is your house located 1 = within 100 feet of a paved road
 2 = within 100 feet of a dirt road
 3 = further than 100 feet from any road

4. How many kids (under 18 years old) live in your house, not counting you?

Number of Girls:

Number of Boys:

5. How many adults (anyone 18 or older) live in your house, not counting you?

Number of Women:

Number of Men:

6. Which of the following people live in your house? (For each person, circle yes or no)

- | | | |
|-------------------|--------|---------|
| mother | 0 = no | 1 = yes |
| father | 0 = no | 1 = yes |
| step-mother | 0 = no | 1 = yes |
| step-father | 0 = no | 1 = yes |
| guardian | 0 = no | 1 = yes |
| grandmother | 0 = no | 1 = yes |
| grandfather | 0 = no | 1 = yes |

7. How many rooms are there in your family's house? (count all rooms including bathrooms)

Number of Rooms:

--

8. Is there a working phone in your house? 0 = no 1 = yes

9. Does your house have indoor plumbing (indoor hot and cold running water, indoor flush toilet)? 0 = no 1 = yes

10. How is your home heated? 1 = wood or coal
 2 = propane or butane
 3 = natural gas or electricity
 4 = some other way (please specify what way)
 9 = don't know

AT HOME, WHICH PERSON PAYS FOR YOUR FOOD, HOUSING, AND BILLS? WRITE THE PERSON'S RELATIONSHIP TO YOU, SUCH AS "FATHER", "MOTHER", "GRANDMOTHER", ON THE LINE BELOW.

8. Look at the person you wrote on the line. Does he or she have a job right now? (Circle the number of all that apply.)
 1 = yes, a full-time job (including self-employed, such as making crafts)
 2 = yes, a part-time job (including self-employed)
 3 = retired and receiving a pension check or social security
 4 = retired, but not receiving a pension check or social security
 5 = no job right now
 6 = on public assistance/welfare (for example, food stamps, AFDC, SSI, GA, or WIC)
 9 = I don't know
9. Has the person you wrote on the line: (Circle the number of all that apply.)
 6 = gone to college or technical school after high school?
 5 = received military training?
 4 = finished high school and stopped there?
 3 = gotten a G.E.D.?
 2 = taken adult basic education classes?
 1 = not finished high school?
 9 = I don't know
10. Does anyone else help to pay for the bills in your house? 1 = yes 0 = no
11. Compared to other families in your home community, is your family: 1 = poorer than most
 CIRCLE ONE 2 = about average
 3 = richer than most
12. In the past six months, how often did your parents not have enough money for food, clothing or housing for your family? 1 = never
 CIRCLE ONE 2 = rarely
 3 = sometimes
 4 = often

WHAT MY FRIENDS AND I BELIEVE

FOR EACH QUESTION, CIRCLE THE NUMBER OF YOUR CHOICE

<i>HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT?</i>	DISAGREE	SOMEWHAT DISAGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT AGREE	AGREE
1. On the whole, I am satisfied with myself.	1	2	3	4	5
2. At times I think I am no good at all.	1	2	3	4	5
3. I feel that I have many good qualities.	1	2	3	4	5
4. I am able to do things as well as other people.	1	2	3	4	5
5. I feel I do not have much to be proud of.	1	2	3	4	5
6. I feel useless at times.	1	2	3	4	5
7. I feel that I am a person of worth.	1	2	3	4	5
8. I wish I could have more respect for myself.	1	2	3	4	5
9.. I feel that I am a failure.	1	2	3	4	5
10. I take a positive attitude toward myself.	1	2	3	4	5

HAPPENINGS

FOR EACH EVENT, CIRCLE "YES" IF THE EVENT HAPPENED TO YOU IN THE PAST 6 MONTHS, OR CIRCLE "NO" IF THE EVENT DID NOT HAPPEN TO YOU IN THE PAST 6 MONTHS.

IN THE PAST 6 MONTHS:

1. You entered a high school as a new or transfer student 0 = NO 1 = YES
2. You experienced verbal abuse(calling you names, insulting you, shaming you) by adults in your family on a regular basis. 0 = NO 1 = YES
3. Your parent wanted work but could not find a job or your parent lost his/her job. 0 = NO 1 = YES
4. Other people gossiped and spread rumors about you 0 = NO 1 = YES
5. You had a serious argument with a friend or friends 0 = NO 1 = YES
6. You broke up with your boyfriend/girlfriend 0 = NO 1 = YES
7. You got in a car wreck in which someone was seriously hurt or killed . . . 0 = NO 1 = YES

FOR THE FOLLOWING EVENTS, MARK "YES" IF THAT HAS EVER HAPPENED TO YOU ANYTIME IN YOUR LIFE.

1. Your mother died 0 = NO 1 = YES
If yes, how old were you when she died? _____ years old
2. Your father died 0 = NO 1 = YES
If yes, how old were you when he died? _____ years old
3. Your sister or brother died 0 = NO 1 = YES
If yes, how old were you when she/he died _____ years old
4. Your parents divorced or stopped living together 0 = NO 1 = YES
If yes, how old were you when that happened? _____ years old
5. Your parent(s) had a serious health problem OR injury OR was in the hospital for over 2 weeks 0 = NO 1 = YES
If yes, how old were you the first time that happened? _____ years old
6. You were hospitalized or seriously ill for more than 2 weeks 0 = NO 1 = YES
If yes, how old were you the first time that happened? _____ years

CULTURAL ISSUES AND INTERESTS.

PLEASE CHOOSE THE ANSWER THAT BEST FITS YOU.

What languages were spoken in your home when you were growing up?

	Rarely or Never	Sometimes	Often	Always
1. Tribal Language (e.g. Navajo)	1	2	3	4
2. English	1	2	3	4
3. Spanish	1	2	3	4
4. Other	1	2	3	4
Please write in name of other language spoken:				

Some families have special activities or traditions (such as holiday parties, special meals, religious activities, trips or visits). In your family, how many of these activities or traditions are based on:

	None	A few	Some	A lot
5. Native American Culture	1	2	3	4
6. White Culture	1	2	3	4
7. Hispanic/Mexican American culture	1	2	3	4
8. Black or African American culture	1	2	3	4
9. Asian culture	1	2	3	4
10. Other culture	1	2	3	4
Please write in the name of the other cultural group:				

How important is it to you to follow religious or spiritual beliefs which are based on:

	Not at all important	Not Very Important	Somewhat Important	Very Important
11. Traditional Native American beliefs	1	2	3	4
12. Christian beliefs such as Catholic, Mormon, Baptist, Lutheran, etc.	1	2	3	4
13. Other beliefs	1	2	3	4
Please write in the name of other beliefs:				

Does your family live by or follow:

	Not at all	Not much	Some	A lot
14. The Native American way of life	1	2	3	4
15. The White or Anglo way of life	1	2	3	4
16. The Hispanic or Mexican American way of life	1	2	3	4
17. The Black or African American way of life	1	2	3	4
18. The Asian way of life	1	2	3	4
19. Other	1	2	3	4
Please write in the name of the other cultural group:				

Do you live by or follow:

	Not at all	A little	Some	A lot
20. The Native American way of life	1	2	3	4
21. The White or Anglo way of life	1	2	3	4
22. The Hispanic or Mexican American way of life	1	2	3	4
23. The Black or African American way of life	1	2	3	4
24. The Asian way of life	1	2	3	4
25. Other	1	2	3	4
Please write in the name of the other cultural group:				

When you are an adult, how involved do you think you will be in:

	Not at all	A little	Some	A lot
26. Native American traditions and beliefs	1	2	3	4
27. White traditions and beliefs	1	2	3	4
28. Hispanic/Mexican American traditions and beliefs	1	2	3	4
29. Black or African American traditions and beliefs	1	2	3	4
30. Asian traditions and beliefs	1	2	3	4
31. Other traditions and beliefs	1	2	3	4
Please write in name of other cultural group:				

When you are an adult, will you be a success in:

	Not at all	Not much	Some	A lot
32. The Native American way of life.	1	2	3	4
33. The White or Anglo way of life.	1	2	3	4
34. The Hispanic or Mexican American way of life	1	2	3	4
35. The Black or African American way of life	1	2	3	4
36. The Asian way of life	1	2	3	4

Is your family a success in:

	Not at all	Not much	Some	A lot
37. The Native American way of life.	1	2	3	4
38. The White or Anglo way of life.	1	2	3	4
39. The Hispanic or Mexican American way of life	1	2	3	4
40. The Black or African American way of life	1	2	3	4
41. The Asian way of life	1	2	3	4

For each question, circle the number that matches your answer	Not at all	Not much	Some	A lot
42. When or if you get married, how important is it for you to marry a person from your ethnic group or tribe?	1	2	3	4
43. As you were growing up, did you live on or have close ties to a reservation?	1	2	3	4

**If you are not a Native American,
please answer "Does Not Apply" to questions 44 to 46.**

For each question, circle the number that matches your answer	Not at all	Not much	Some	A lot	Does not Apply
44. Do you <u>spea</u> k your tribal language?	1	2	3	4	5
45. Do you participate in traditional practices such as memories, feasts, healing ceremonies, religious events, or naming ceremonies?	1	2	3	4	5
46. How important is it to you to have Native American values and practices, such as respect for elders or generosity?	1	2	3	4	5

QUESTIONS ABOUT ALCOHOL

For each of the following, CIRCLE YOUR CHOICE

- | | |
|--|---|
| <p>1. Does your biological mother have a <u>serious</u> drinking problem now? . . . 0 = No
1 = Yes
9 = Don't know</p> <p>2. Has your biological mother had a <u>serious</u> drinking problem <u>in the past</u>? 0 = No
1 = Yes
9 = Don't know</p> <p>3. Does your biological father have a <u>serious</u> drinking problem <u>now</u>? . . . 0 = No
1 = Yes
9 = Don't know</p> <p>4. Has your biological father had a <u>serious</u> drinking problem <u>in the past</u>? 0 = No
1 = Yes
9 = Don't know</p> <p>5. Other than your biological mother or father, have you ever lived with someone who had a serious drinking problem? 0 = No
1 = Yes
9 = Don't know</p> | <p>6. During the past <u>month</u>, how often did you get <u>drunk</u> (you drank enough so that you were sick, staggering, lost control, or passed out)?</p> <p style="text-align: right;">Number of times drunk: _____
xx = I don't drink
yy = I have never gotten drunk</p> <p>7. Not counting small tastes, how old were you when you started drinking alcoholic beverages with your friends or on your own?</p> <p style="text-align: right;">Age: _____
xx = I don't drink</p> <p>8. How old were you the first time you got drunk (you drank enough so that you were sick, staggering, lost control, or passed out)?</p> <p style="text-align: right;">Age: _____
xx = I don't drink
yy = I have never gotten drunk</p> <p>9. In the last <u>6</u> months, did you go on a binge of drinking or a drinking spree where you stayed drunk for two whole days or more?</p> <p style="text-align: right;">0 = No
1 = Yes
8 = I don't drink</p> |
|--|---|

THESE QUESTIONS ASK ABOUT YOUR HOME COMMUNITY OR CHAPTER AREA'S ATTITUDES TOWARD ALCOHOL USE. BY HOME COMMUNITY, WE MEAN THE COMMUNITY OR CHAPTER AREA YOU HAVE GROWN UP IN.

HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT?

For each question, mark the box for your answer	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree
1. My home community believes that it is all right for adults to drink alcohol	1	2	3	4	5
2. My home community believe that it is all right for people my age to drink alcohol	1	2	3	4	5
3. My home community tolerates boot-legging	1	2	3	4	5

READ EACH STATEMENT AND ANSWER ACCORDING TO YOUR OWN PERSONAL BELIEFS. EVEN IF YOU HAVE NEVER TRIED DRINKING ALCOHOL, TELL US WHAT YOU THINK WOULD HAPPEN IF YOU DID

For each question, mark the box for your answer	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree
1. Drinking alcohol makes me feel in control of the situation	1	2	3	4	5
2. Drinking alcohol makes parties more fun.	1	2	3	4	5
3. Drinking alcohol helps me understand things better.	1	2	3	4	5
4. Drinking alcohol helps me celebrate social occasions	1	2	3	4	5
5. Drinking alcohol helps me forget my worries.	1	2	3	4	5
6. Drinking alcohol helps me feel less fearful.	1	2	3	4	5
7. Drinking alcohol makes me more relaxed and less tense.	1	2	3	4	5

READ EACH STATEMENT AND ANSWER ACCORDING TO YOUR OWN PERSONAL BELIEFS. TO WHAT EXTENT DO YOU AGREE WITH THE FOLLOWING STATEMENTS?

For each question, mark the box for your answer	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree
1. Drinking alcohol is bad for my health.	1	2	3	4	5
2. Drinking alcohol will lead me to become an alcoholic or a drunk.	1	2	3	4	5
3. Drinking alcohol conflicts with my religious or spiritual beliefs.	1	2	3	4	5
4. I like the way drinking alcohol makes me feel.	1	2	3	4	5
5. I need to drink alcohol in order to have fun.	1	2	3	4	5

PLEASE CHOOSE THE ANSWER THAT COMES CLOSEST TO YOUR BEHAVIOR DURING THE PAST MONTH

For each question, mark the box for your answer IN THE PAST MONTH:	Rarely or never	Sometimes	Often	Almost Always	I don't drink
1. Did you drink more than you thought you would?	1	2	3	4	8
2. Did you end up drinking even when you had decided not to?	1	2	3	4	8
3. Did you find you could drink more before you got drunk?	1	2	3	4	8
4. Were you hung over or sick after drinking?	1	2	3	4	8
5. Was drinking something you couldn't stop thinking about?	1	2	3	4	8
6. Did you go to class drunk or hung over?	1	2	3	4	8
7. Did your grades go down because of drinking?	1	2	3	4	8
8. Did you drive a car when you were drinking or do anything else where it might have put yourself or others in danger?	1	2	3	4	8
9. Did you find that you only liked to drink all by yourself	1	2	3	4	8
10. Did you find that you only liked to drink in certain places or at certain times?	1	2	3	4	8
11. During the time when you were drinking the most, did you get sad, or depressed, or more irritable?	1	2	3	4	8
12. Did you get sick or have any physical problems when you stopped drinking?	1	2	3	4	8
13. Did you drink again to get rid of a hangover?	1	2	3	4	8
14. Did you wake up the day after drinking and discover you couldn't remember what you had said or done while you were drunk?	1	2	3	4	8
15. Did you fight with a friend while you were drinking?	1	2	3	4	8
16. Did you fight with your parent(s) while you were drinking?	1	2	3	4	8

- If you or your friends ever had a problem with alcohol or drugs, would you talk with anyone at school about them? 0 = no . . 1 = yes
- If yes, which of the following people would you talk to at school? 1 = Administrator
CIRCLE ALL THAT APPLY 2 = school counselor
3 = counselor aide
4 = teacher
5 = teacher aide
6 = other
- If you or your friends ever had a problem with alcohol or drugs, would you talk with anyone outside school about them? . . . 0 = no . . 1 = yes
- If yes, which of the following people would you talk to outside school? 1 = Parent
CIRCLE ALL THAT APPLY 2 = Grandparent
3 = other relative
4 = friends
5 = outside school agency counselor or social worker
6 = church leader

MORE ABOUT MY FRIENDS AND ME

CIRCLE THE NUMBER THAT MATCHES YOUR CHOICE:

- | | |
|--|---|
| <p>1. How often do your friends ask you to get drunk?
 1 = Rarely or never
 2 = Sometimes
 3 = Often
 4 = Almost Always</p> <p>2. How often do you try to stop your friends from getting drunk?
 1 = Rarely or never
 2 = Sometimes
 3 = Often
 4 = Almost Always
 5 = I don't drink</p> | <p>3. How often do your friends try to stop you from getting drunk?
 1 = Rarely or never
 2 = Sometimes
 3 = Often
 4 = Almost Always
 5 = I don't drink.</p> <p>4. How many of your friends get drunk?
 1 = None
 2 = A few
 3 = Some
 4 = A lot</p> |
|--|---|
1. Does anyone think you have a problem with alcohol? 0 = no . . . 1 = yes . . . 8 = I don't drink
2. Has someone ever suggested that you should get treatment for an alcohol problem? 0 = no . . . 1 = yes . . . 8 = I don't drink
3. Have you ever received treatment for your use of alcohol, such as going to a counselor or an AA meeting? 0 = no . . . 1 = yes . . . 8 = I don't drink

MY IDEAS AND THOUGHTS

HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT?

For each question, mark the box for your answer	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree
1. There is really no way I can solve some of the problems I have.	1	2	3	4	5
2. There is little I can do to change many of the important things in my life.	1	2	3	4	5
3. Sometimes I feel that I am being pushed around in life.	1	2	3	4	5
4. I can do just about anything I really set my mind to.	1	2	3	4	5
5. I often feel helpless in dealing with the problems of life.	1	2	3	4	5
6. When I make plans, I am almost certain I can make them work.	1	2	3	4	5
7. I am usually able to protect my personal interests.	1	2	3	4	5
8. When I get what I want, it is usually because I worked hard for it.	1	2	3	4	5

MORE ABOUT CULTURAL ISSUES AND INTERESTS

Every person is born into a tribe or an ethnic group, or sometimes two, but people differ on how important their ethnicity or tribe is to them, how they feel about it, and how much their behavior is affected by it. These questions are about your ethnic group or tribe and how you feel about it or react to it.

PLEASE CHOOSE THE ANSWER THAT BEST FITS YOU.

	Strongly Disagree	Somewhat disagree	Somewhat Agree	Strongly Agree
1. I have spent time trying to find out more about my own ethnic group or tribe, such as its history, traditions and customs.	1	2	3	4
2. I am active in organizations or social groups that include mostly members of my own tribe or ethnic group.	1	2	3	4
3. I have a clear sense of my tribal or ethnic background and what it means for me.	1	2	3	4
4. I like meeting and getting to know people from ethnic groups or tribes other than my own.	1	2	3	4
5. I think a lot about how my life will be affected by my ethnic group or tribe membership.	1	2	3	4
6. I am happy that I am a member of the group I belong to.	1	2	3	4
7. I sometimes feel it would be better if different ethnic groups or tribes didn't try to mix together.	1	2	3	4
8. I am not very clear about the role of my ethnicity or tribal membership in my life.	1	2	3	4
9. I often spend time with people from ethnic groups or tribes other than my own.	1	2	3	4
10. I really have not spent much time trying to learn more about the culture and history of my tribe or ethnic group.	1	2	3	4
11. I have a strong sense of belonging to my own ethnic group or tribe.	1	2	3	4
12. I understand pretty well what my ethnic or tribal group membership means to me, in terms of how to relate to my own group and other groups.	1	2	3	4
13. In order to learn more about my tribal or ethnic background, I have often talked to other people about my tribe or ethnic group.	1	2	3	4
14. I have a lot of pride in my ethnic group or tribe and its accomplishments.	1	2	3	4
15. I don't try to become friends with people from other ethnic groups or tribes.	1	2	3	4
16. I participate in cultural practices of my own group, such as special food, music, or customs.	1	2	3	4
17. I am involved in activities with people from other ethnic groups or tribes.	1	2	3	4
18. I feel a strong attachment towards my own ethnic group or tribe.	1	2	3	4
19. I enjoy being around people from ethnic groups or tribes other than my own.	1	2	3	4
20. I feel good about my cultural or ethnic background.	1	2	3	4

MY THOUGHTS ABOUT MY ETHNIC GROUP OR TRIBE

HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT?

For each question, mark the box for your answer	Strongly Disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree
1. I am a worthy member of my ethnic group or tribe.	1	2	3	4	5	6	7
2. I sometimes regret that I belong to the ethnic group or tribe I do.	1	2	3	4	5	6	7
3. Overall, my ethnic group or tribe is considered good by others.	1	2	3	4	5	6	7
4. Overall, my ethnic or tribal group memberships has very little to do with how I feel about myself.	1	2	3	4	5	6	7
5. I feel I don't have much to offer to my ethnic group or tribe.	1	2	3	4	5	6	7
6. In general, I'm glad to be a member of my ethnic group or tribe.	1	2	3	4	5	6	7
7. Most people consider my ethnic group or tribe, on the average, to be more ineffective than other ethnic groups or tribes	1	2	3	4	5	6	7
8. The ethnic group or tribe I belong to is an important reflection of who I am.	1	2	3	4	5	6	7
9. I am a cooperative participant in my ethnic group or tribe.	1	2	3	4	5	6	7
10. Overall, I often feel that my ethnic group or tribe is not worthwhile.	1	2	3	4	5	6	7
11. In general, others respect my ethnic group or tribe.	1	2	3	4	5	6	7
12. My ethnic group or tribe is unimportant to my sense of what kind of a person I am.	1	2	3	4	5	6	7
13. I often feel I'm a useless member of my ethnic group or tribe.	1	2	3	4	5	6	7
14. I feel good about my ethnic group or tribe.	1	2	3	4	5	6	7
15. In general, others think that my ethnic group or tribe is unworthy.	1	2	3	4	5	6	7
16. In general, belonging to my ethnic group or tribe is an important part of my self-image.	1	2	3	4	5	6	7

MORE HAPPENINGS

DURING THE PAST 6 MONTHS, HOW OFTEN HAVE YOU:

For each question, mark the box for your answer	Never	Once	Twice	3-4 Times	5 or more times
1. Started a fist fight or shoving match?	1	2	3	4	5
2. Shoplifted from a store?	1	2	3	4	5
3. Damaged or marked up public or private property?	1	2	3	4	5
4. Stayed out all night without permission?	1	2	3	4	5
5. Lied to your parents or grandparents about where you have been or who you were with?	1	2	3	4	5
6. Blamed others for things you have done?	1	2	3	4	5
7. Hung around with others who get into trouble?	1	2	3	4	5
8. Brought a weapon (e.g., a knife or gun) to school?	1	2	3	4	5

MY LIFE IN MY HOME COMMUNITY/CHAPTER AREA

THINK ABOUT YOUR HOME COMMUNITY/CHAPTER AREA - WHERE YOU LIVE AND SPEND MOST OF YOUR TIME AWAY FROM SCHOOL.

WHEN I AM IN MY HOME COMMUNITY/CHAPTER AREA, AWAY FROM SCHOOL...

For each question, mark the box for your answer	RARELY OR NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
1. I visit older relatives	1	2	3	4
2. I try to help others when I can	1	2	3	4
3. How I act pleases the <u>elders</u> in the community	1	2	3	4
4. I am loyal to my friends	1	2	3	4
5. I like working with others	1	2	3	4
6. I visit elders	1	2	3	4
7. I stand up for my rights	1	2	3	4
8. I share things with others	1	2	3	4
9. I volunteer to help the elders	1	2	3	4
10. How I act pleases my <u>friends</u> in the community	1	2	3	4
11. I stand up for others	1	2	3	4

QUESTIONS ABOUT DRUGS

FOR THE FOLLOWING DRUGS, PLEASE ANSWER WHETHER OR NOT YOU HAVE EVER TRIED THE DRUG, HOW MANY TIMES YOU USED IT IN THE LAST MONTH, AND HOW OLD YOU WERE THE FIRST TIME YOU USED IT. THIS DOES NOT INCLUDE PRESCRIPTION DRUGS (THOSE DRUGS GIVEN TO YOU BY A DOCTOR OR NURSE).

IF YOU HAVE NEVER TRIED THE DRUG, PLEASE MARK "NO" AND GO ON THE NEXT DRUG. IF YOU HAVE TRIED THE DRUG, MARK "YES" AND MARK THE NEXT TWO COLUMNS AS WELL

	Yes/No (Circle)	Number of times used in the last month	How old were you when you first tried?
1. Marijuana	0 = No 1 = Yes		
2. Crack or Cocaine	0 = No 1 = Yes		
3. Inhalants (sniffing) (glue, gasoline, paint, aerosols, etc.)	0 = No 1 = Yes		
4. Solvents (drinking) (hair spray, PAM, aftershave, Robotussin, etc.)	0 = No 1 = Yes		
5. Amphetamines or speed (methadrine, crystal uppers, white cross, etc.)	0 = No 1 = Yes		
6. Barbiturates or downers (librium, valium, red, quaaludes, sleeping pills pain killers, etc.)	0 = No 1 = Yes		
7. Other Drugs such as those on the list below. Hallucinogens (LSD, acid, etc.) PCP (angel dust) Heroin, morphine or other opiates/narcotics (codeine) Amyl or butyl nitrates Ecstasy or MDA	0 = No 1 = Yes		

FOR EACH OF THE FOLLOWING, CIRCLE YOUR ANSWER:

10. How often do you use smokeless tobacco per week?	0 = not at all 1 = once in a while (1-3 days/week) 2 = some of the time (4-6 days/week) 3 = every day
11. How old were you when you first tried smokeless or chewing tobacco?	Age: _____ xx = I don't use smokeless tobacco
12. Do you smoke cigarettes? (CIRCLE YOUR ANSWER)	0 = not at all 1 = once in a while, but not every day 2 = 1-5 cigarettes per day 3 = 6-10 cigarettes per day 4 = 11-20 cigarettes per day 5 = more than a pack per day
13. How old were you when you tried cigarettes?	Age: _____ xx = I don't use cigarettes

FEELINGS AND THOUGHTS

Read each item carefully. Be sure to respond to the whole item and not just a certain part of it. Remember, we are interested in how these items either reflect or don't reflect how you see your own thoughts and feelings at this time.

HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT?

For each question, mark the box for your answer	Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree
1. I haven't really considered politics. It just doesn't excite me much.	1	2	3	4	5	6
2. I might have thought about a lot of different jobs, but there's never really been any question since my parents said what they wanted.	1	2	3	4	5	6
3. When it comes to religion, I just haven't found anything that appeals and I don't really feel the need to look.	1	2	3	4	5	6
4. My parents decided a long time ago what I should go into for employment and I'm following through their plans.	1	2	3	4	5	6
5. There are so many different political parties and ideals. I can't decide which to follow until I figure it all out.	1	2	3	4	5	6
6. I don't give religion much thought and it doesn't bother me one way or the other.	1	2	3	4	5	6
7. I guess I'm pretty much like my folks when it comes to politics. I follow what they do in terms of voting and such.	1	2	3	4	5	6
8. I haven't chosen the occupation I really want to get into, and I'm just working at whatever is available until something better comes along.	1	2	3	4	5	6
9. A person's faith is unique to each individual. I've considered and reconsidered it myself and know what I can believe.	1	2	3	4	5	6
10. It took me a long time to decide but now I know for sure what direction to move in for a career.	1	2	3	4	5	6
11. I really have never been involved in politics enough to have made a firm stand one way or the other.	1	2	3	4	5	6
12. I'm not so sure what religion means to me. I'd like to make up my mind but I'm not done looking yet.	1	2	3	4	5	6
13. I've thought my political beliefs through and realize I can agree with some and not other aspects of what my parents believe.	1	2	3	4	5	6
14. It took me a while to figure it out, but now I really know what I want for a career.	1	2	3	4	5	6
15. Religion is confusing to me right now. I keep changing my views on what is right and wrong for me.	1	2	3	4	5	6
16. I'm not really interested in finding the right job, any job will do. I just seem to flow with what is available.	1	2	3	4	5	6
17. My folks have always had their own political and moral beliefs and I've always gone along accepting what they have.	1	2	3	4	5	6
18. I've gone through a period of serious questions about faith and can now say I understand what I believe in as an individual.	1	2	3	4	5	6
19. I'm not sure about my political beliefs, but I'm trying to figure out what I can truly believe in.	1	2	3	4	5	6

MORE FEELINGS AND THOUGHTS

HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT?

For each question, mark the box for your answer	Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree
20. I'm still trying to decide how capable I am as a person and what jobs will be right for me.	1	2	3	4	5	6
21. I attend the same church my family has always attended. I've never really questioned why.	1	2	3	4	5	6
22. I just can't decide what to do for an occupation. There are so many that have possibilities.	1	2	3	4	5	6
23. I've never really questioned my religion. If it's right for my parents it must be right for me.	1	2	3	4	5	6
24. Politics is something that I can never be too sure about because things change so fast. But I do think it's important to know what I can politically stand for and believe in.	1	2	3	4	5	6

PLEASE CHOOSE THE ANSWER WHICH DESCRIBES HOW YOU FELT DURING THE PAST WEEK.

For each question, circle the number that matches how many times you felt that way in the past week	Rarely or none of the time (0-1 day)	Some or a little of the time (1-2 days)	A moderate amount of the time (3-4 days)	Most or all of the time (5-7 days)
1. I felt that I could not shake off the blues even with help from my family or friends	1	2	3	4
2. I felt depressed	1	2	3	4
3. I thought my life had been a failure	1	2	3	4
4. I felt fearful	1	2	3	4
5. I felt lonely	1	2	3	4
6. I had crying spells	1	2	3	4
7. I felt sad	1	2	3	4

HOW MUCH DO YOU AGREE OR DISAGREE WITH EACH STATEMENT?

For each question, mark the box for your answer	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree
1. There is a special person who is around when I am in need.	1	2	3	4	5
2. I have a special person who is a real source of comfort to me.	1	2	3	4	5
3. My family really tries to help me.	1	2	3	4	5
4. I can talk about my problems with my family.	1	2	3	4	5
5. I have friend with whom I can share my joys and sorrows.	1	2	3	4	5
6. I can talk about my problems with my friends.	1	2	3	4	5

HAVE YOU HAD THESE FEELINGS IN THE PAST 6 MONTHS?

For each question, mark the box for how often you have ever felt that way:	NEVER	SOMETIMES	OFTEN	MOST OF THE TIME
1. I am afraid other kids will laugh at me	1	2	3	4
2. I worry about making mistakes in front of people	1	2	3	4
3. I am afraid to talk in front of the class	1	2	3	4
4. I worry that other kids don't like me	1	2	3	4
5. I am afraid I might think or do something bad	1	2	3	4
6. I am shy	1	2	3	4
7. I get embarrassed easily	1	2	3	4
8. I am so uptight I can't relax	1	2	3	4
9. I worry about school	1	2	3	4

FOR EACH OF THE FOLLOWING, MARK THE BOX FOR HOW OFTEN YOU HAVE EVER FELT THAT WAY

For each question, mark the box for how often you have ever felt that way:	NEVER	SOMETIMES	OFTEN	MOST OF THE TIME
1. I have a lot of friends	1	2	3	4
2. Other kids like me	1	2	3	4
3. I enjoy being with other people	1	2	3	4
4. I can make friends with people	1	2	3	4
5. I'm easy to like	1	2	3	4
6. I feel good if someone says nice things about me	1	2	3	4
7. I can keep a friend 6 months or more	1	2	3	4
8. I enjoy a good joke	1	2	3	4
9. I am popular with kids my age	1	2	3	4

FOR EACH OF THE FOLLOWING, MARK THE BOX FOR HOW OFTEN YOU HAVE EVER FELT THAT WAY

For each question, mark the box: for how often you have ever felt that way:	NEVER	SOMETIMES	OFTEN	MOST OF THE TIME
1. My family would be better off without me	1	2	3	4
2. I'd rather be alone than with other people	1	2	3	4
3. I feel overtired	1	2	3	4
4. I feel bad, as if I've done something wrong	1	2	3	4
5. I feel lonely	1	2	3	4
6. I feel that no one loves me	1	2	3	4
7. I am unhappy	1	2	3	4
8. I am cranky and grumpy	1	2	3	4
9. I feel I'm no good at all	1	2	3	4
10. I cry a lot	1	2	3	4
11. I think a lot about people getting killed and about accidents happening	1	2	3	4

FOR EACH OF THE FOLLOWING, MARK THE BOX FOR HOW OFTEN YOU HAVE EVER FELT THAT WAY

For each question, mark the box for how often you have ever felt that way:	NEVER	SOMETIMES	OFTEN	MOST OF THE TIME
1. I am good at school work	1	2	3	4
2. I can do school work quickly	1	2	3	4
3. I can figure out answers in school	1	2	3	4
4. I feel I am just as smart as other kids my age	1	2	3	4
5. I am proud of my school work	1	2	3	4
6. I catch on in school quickly	1	2	3	4
7. I pay attention in class	1	2	3	4
8. I can follow directions	1	2	3	4
9. I have enough time to get my work done	1	2	3	4
10. People can depend on me	1	2	3	4

PLEASE TURN THE PAGE

Please write any comments you have in the space below.

Please tell us about the one or two biggest problems you have faced or that teens in general face.

Use the back of this page if you need more space.