

Plans to Live on a Reservation Following College Among American Indian Students: An Examination of Transculturation Theory

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This paper focuses on American Indian college students and uses transculturation theory to examine factors related to self-reported plans to live on a reservation following completion of college. Transculturation theory assumes a strong cultural identity is fundamental to academic success. The author uses the basic premise of this perspective to consider an extension to its assumptions. Findings indicate that an implied assumption of the transculturation perspective is that American Indians closely aligned with traditional culture tend to seek careers in which they serve Native communities and more likely plan to live on a reservation after college.

Many American Indian reservations are in need of substantial and sustained community development when poverty rates, unemployment rates, and indicators of poor health chronically remain above national and state levels (Anderson & Parker, 2008; Cornell & Kalt, 2000). Tribal members who have the necessary professional and cultural proficiency to provide leadership are fundamental to the capacity building of reservations (Anderson, Benson, & Flanagan, 2006). The community development needs of reservations have led to innovative approaches designed to facilitate internal capacity building. Recently the Bush Foundation funded "The Rebuilding Native Nations Program" consisting of a cooperative effort with 23 tribal governments designed to encourage and train emerging community leaders (Jorgensen, 2007). Moreover, many of the recent capacity building efforts are associated with universities. For example, Humboldt State University, who founded the Center for Indian Community Development and the University of Northern Arizona, operates the Capacity Building for American Indians Project.

Many potential leaders, critical to community capacity building, are pursuing higher education degrees. Unfortunately, the college attrition rate among American Indian students has remained at alarmingly high levels (Brown, 2003). As a result, many prospective reservation leaders experience tremendous difficulty completing college (Huffman, 1986). Compounding this problem is

the tendency for rural communities to lose many of their talented young people to urban areas (Carr & Kefalas, 2009). Nevertheless, there is debate whether the same push-pull factors confronting individuals from rural areas operate in a similar manner for American Indian individuals who often hold unique cultural ties to reservations and may not desire to pursue personal opportunities in cities (Huffman, 1986; Lee, 2009).

This paper considers factors associated with self-reported plans to live on a reservation following completion of college among a sample of American Indian students. The author uses data derived from a survey on the general college experience of American Indians attending a predominately non-Indian university in South Dakota to explore the connection between a number of independent variables (e.g., personal background, cultural orientation, nature of the college experience, and motivation for career after college) with the dependent variable plans to live on a reservation following college. Further, this paper examines an extension of transculturation theory. Transculturation theory asserts that strong cultural identity and affiliation are fundamental to the academic success for American Indian students (Huffman, 2010). Moreover, there is research evidence to suggest culturally traditional students are inclined to regard higher education as a vehicle to help American Indian people rather than a means for personal gain. Thus, an implied assumption of transculturation would appear to be that American Indians who are more closely aligned with traditional culture will be more inclined to seek careers to serve tribal communities and thus more likely to indicate a desire to live on a reservation after college.

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This paper will explore the empirical support for such an extension to transculturation theory.

Review of the Literature

There is little research on the residential and career preferences of college educated American Indians. Conventional wisdom and some documented scholarship maintain rural areas suffer from the “brain drain” of their most well-educated and, presumably, most talented (Carr & Kefalas, 2009). However, the migration patterns of American Indian communities likely include greater intricacy than suggested by conventional thinking. Indeed a number of significant cultural and economic factors intersect to create a complexity that is not typically found in most American rural areas. Cultural and family ties are inducements drawing culturally oriented, college educated individuals to a reservation while, simultaneously, strong economic incentives encourage out-migration (Cebula & Belton, 1994; HeavyRunner & Marshall, 2003; Zahrt, 1997). Indeed, Zahrt (2001) found that while out-migration is less profound on reservations in which cultural integrity is greater, nevertheless she also documented higher rates of outmigration among highly educated individuals. Zahrt’s research notwithstanding, little is understood about how cultural orientation, personal background, and even personal motivation for a college degree among American Indian college students are associated with their plans following college. Transculturation theory does, however, suggest how these variables should operate for American Indian students.

Transculturation Theory

The concept of transculturation was first introduced into the social sciences by Cuban writer and ethnographer Fernando Ortíz (1995) and American anthropologist A. Irving Hallowell (1963). To Ortíz, transculturation consists of a process by which cultural differences could be resolved (Allatson, 2007) while for Hallowell transculturation refers to a socialization process required to function in a new culture (Sill, 1967). More recently a number of scholars have articulated these initial conceptualizations into a theoretical framework generally known as transculturation theory (Huffman, 2001, 2008, 2010; White Shield, 2004, 2009).

A relatively new theoretical perspective, transculturation theory in its current form, was developed specifically to account for the unique higher educational experiences of some American Indian students (Huffman, 2010). Transculturation theory asserts that American Indian students

engage in the process of learning the cultural nuances found in mainstream higher education while retaining and relying upon their cultural heritage to forge a strong identity and sense of purpose (Huffman, 2001; White Shield, 2009). Found within its basic premise are two important assumptions. The first assumption is that a strong cultural identity is essential to persistence in mainstream higher educational institutions (White Shield, 2004, 2009). A strong cultural identity serves as an emotional and cultural anchor for American Indian individuals. Indeed, individuals gain self-assuredness, self-worth, even a sense of purpose from their ethnicity (Horse, 2005). By forging a strong cultural identity, many Native students develop the confidence to explore a new culture and not be intimidated. Essentially, they do not fear cultural loss through assimilation. The second assumption is that transculturation is a type of socialization involving a complex process of cultural learning resulting in the ability to effectively participate in more than one cultural setting (Huffman, 2001, 2005, 2008). Transculturation is the process of learning a new culture. Thus, to be successful in mainstream higher educational settings, culturally oriented American Indian students must learn and understand its cultural context and meanings. Significantly, transculturation includes the exchanges between cultures whereby an individual continually learns and expands cultural understanding and skills. In essence, the notion of transculturation emphasizes the capacity for individuals to build on preexisting cultural knowledge (Lee, 2007).

Transculturation is similar to the more commonly used concept of biculturation. However, it is important to distinguish between transculturation and biculturation. The notion of biculturation is typically conceptualized as the process by which a person retains components of his/her cultural heritage while adopting elements of the mainstream culture. The result is the development of a dual cultural identity, one oriented to Native cultural ways and another oriented toward the mainstream society (Garrett, 1996). However, a close consideration reveals biculturation is typically regarded to mean that minority members ultimately experience some cultural loss (O’Sullivan, 2007). Thus, biculturation is frequently conceived as a mathematical equation. An individual adds elements from the majority culture while relinquishing aspects of his/her native culture (Berry, 2003, Cheung-Blunden & Juang, 2008). Eventually the adding and subtracting process results in a cultural hybrid (Henze & Vanett, 1993). In such a conception, the person has acquired the necessary skills to operate in two cultural worlds (Garrett, 1996).

However, this is not the conception of transculturation. Transculturation does not accept the notion that cultural exchanges necessarily lead to cultural hybridization with resultant cultural loss. On the contrary, the reflective and

rational individual is capable of retaining intact Native cultural ways, views, and beliefs while learning the ways, views, and beliefs of a new culture. The point is that the transculturation process has not required the relinquishing of former cultural ways to make room for new ones as implied in the usual conceptualization of biculturation (Huffman, 2008; White Shield, 2004).

American Indian Education Research and Transculturation Theory

An emerging body of research generally supports the premise and assumptions of transculturation theory. Huffman, Sill, and Brokenleg (1986) were among the first to empirically test transculturation theoretical assertions. They found that strong identification with Native culture was associated with academic success among a sample of South Dakota American Indian college students. A few years later, Judith Davis (1992) used transculturation theory as a theoretical framework guiding her qualitative research with Montana American Indian college students. Her findings also provide support for transculturation theory's premise and general assumptions. In particular, Davis found, after difficult transitions to college, the participants used their ethnicity to engage the college mainstream setting. She relates, "These graduates were able to retain their Indian culture, to be Indian, and to be a successful student in the middle class system" (Davis, 1992, p. 29).

Schiller and Gaseoma (1993) likewise found the attachment to Native culture assists in achieving greater educational success among a sample of American Indian college students. Significantly, the majority of individuals in their study reported serious cultural conflict while in college. However, the personal confidence and purpose derived from strong cultural identification served to provide effective strategies to remain in school and engage the collegiate setting.

Okagaki, Helling, and Bingham (2009) examined transculturation theory's assertion that strong ethnic identity is associated with academic achievement. The researchers designed a quantitative study with 67 American Indian students and 95 White college students in order to compare the groups on a variety of variables. Central to this study is an examination of the relationship between attitudes toward ethnic identity and views on education among the American Indian participants. Notable is the finding that strong American Indian ethnic identity is associated with a high regard of the instrumental importance of education. These authors provide quantitative research support for the theory of transculturation.

Huffman (2001, 2008) also documented the process of transculturation and the crucial role played by a strong

cultural identity in the experiences of 21 American Indian college students. While virtually all the students initially encountered extremely problematic situations, most of them successfully proceeded through college. The transculturation process proved to be difficult but rewarding in the end. Huffman relates, "For the transculturated students, educational perseverance was the reward while retention and use of their cultural identity were the mechanism for success" (2008, p. 188).

In her research with eight American Indian undergraduate and graduate women, Rosemary White Shield (2009) presents a uniquely Native approach to how scholarly research is performed and how data are analyzed and interpreted. The most distinctive feature of her research method is the use of what she describes as the "Medicine Wheel Culturally Intrinsic Research Paradigm Model." This approach calls for the researcher to consult with tribal elders on the appropriate recruitment of participants into the study. Additionally, the model requires that the researcher integrate the reflections and perceptions of the study participants with the wisdom and guidance of tribal elders. Thus, White Shield took the information provided by the students and asked respected elders for perspective in order to achieve a truer understanding of the significance of the thoughts and experiences of the participants.

Transculturation theory is an essential part of White Shield's approach and she uses it in two ways. First, she employs transculturation as the conceptual framework to guide the research and her working hypotheses. Second, she uses its premise and assumptions to account for the findings of her investigation. Resultantly, White Shield outlines four "clusters of internally related themes" as instrumental in the successful navigation through higher education among her participants. First, spirituality served as a major source of strength as the women in her study completed a higher education degree. Second, the participants perceived the higher educational experience through traditional cultural stories, images, and metaphors. White Shield explains "these metaphors served as an anchor or 'grounding point' that enabled them to access inner spiritual resources to retain identification with traditional Native ways of being" (2009, p. 53). The third theme is the participants reported gaining cultural strength in the traditional Native roles for women. Significant for this article is the documentation that this identity helped to crystallize commitment to their communities which also provided greater purpose in their higher educational efforts. The fourth theme, family loyalty, was foundational to the sense of purpose for the participants. They were emphatic that the desire to achieve in higher education was for the benefit of their family.

The participants in White Shield's study held traditional Native views and beliefs. Her investigative effort documents the importance of their cultural strengths while engaging the

ultimate of mainstream knowledge and worldview—higher education. However, White Shield does more than this; she also provides evidence that a strong ethnic identity enables even the most culturally traditional American Indian person to successfully engage mainstream higher education. In short, her participants were highly traditional but they were also transculturated.

Ambitions for College Degree and Plans Upon Completion of College

Some researchers have found ambivalent attitudes about returning to a reservation after college among American Indian students. For example, Jackson, Smith, and Hill (2003) found that a number of the participants in their qualitative study on factors related to college persistence indicated reluctance to return to a reservation following college:

The participants reported feeling some pressure to reconcile the fact that they had left their reservation. Many of them indicated a desire to return to their reservation to help the people there. Others said that they felt they had to cut their connections to the reservation as a means of maintaining their success. (p. 559)

Indeed, there is considerable discussion on the opportunities and dilemmas facing college educated American Indians. Most notable in this regard is that an initial discouragement to pursue education is associated with the reluctance to return to the reservation following college (Guillory & Wolverton, 2008; Jackson & Smith, 2001). In her case study investigation on the college experiences of 13 American Indians, Ness (2002) reported that many of the participants felt pressure from family and acquaintances not to succeed in college. These sentiments not only represented a significant barrier to educational advancement but also as a deterrent to return to the reservation following graduation. Davis (1992), too, found similar experiences among the 10 academically successful individuals in her study.

Nevertheless, the desire to serve Native communities has been found to be a powerful motivator for pursuing higher education among American Indians (Pavel, Banks, & Pavel, 2002). However, some have suggested that this motivation is highly contingent upon an individual's cultural orientation (Garrod & Larimore, 1997). Specifically, those who are closely aligned with Native cultural traditions are more inclined to view education as a means to serve the community rather than for personal financial gain or opportunities (HeavyRunner & DeCelles, 2002; Huffman, 2008; White Shield, 2009). In a mixed methods study, Benjamin, Chambers, and Reiterman (1993) found that the intrinsic reward to serve Native peoples, potentially

afforded by higher educational success, was important to college persistence among many of the students in their investigation. In a qualitative study with 18 Native students at the University of North Dakota, Juntunen et al. (2001) also found a pervasive sentiment to use higher education as a means to assist Native communities. Furthermore, this view was particularly prevalent among the more culturally traditional students. Juntunen and her colleagues conclude, "Career is an activity and concept for American Indians, and its value may be defined by the contribution it makes to the whole of the community" (284). Likewise, researchers have identified that American Indians attending tribal colleges are also highly motivated by the drive to serve the community (Brown, 2003; Fogarty, 2007).

Extension of Transculturation Theory

As transculturation theory assumes that a strong cultural identity is instrumental in assisting American Indian students to navigate the rigors of mainstream higher education, it is logical to extend this assumption to assert that a strong cultural identity will also facilitate a desire to transition back into reservation communities. Further, based on previous, albeit limited, research evidence it is hypothesized that culturally-oriented students are more likely to associate higher educational success with opportunities to serve American Indian peoples. Thus the extension to transculturation theory predicts that culturally-oriented individuals will be more inclined to report plans to return to a reservation and serve American Indian peoples compared to those who are less culturally-oriented.

Method

The data used in this analysis were derived from a survey on the perceptions of the college experience among American Indian students attending a South Dakota university with a student enrollment of approximately 2,700 students of which about 4% to 5% are American Indian. During a five year period, each Native individual attending the university was sent information on the research, a request for participation, and a survey instrument. A total of 232 American Indian individuals attended the university during that timeframe and 101 survey instruments were returned. Thus the response rate for the study was 44%. However, many of the returned questionnaires included missing data on key variables and thus were not sufficiently completed. As a result, only 86 completed surveys were ultimately included in the data analysis. Consequently, the completion rate for this specific analysis was 37%.

Research Ethics With American Indians

The leadership team of the university's American Indian student association initiated this research investigation. They were specifically interested in obtaining documentation on the higher educational experiences and concerns voiced by the university's Native student body. This study followed all research with human participants policies established at the university as well as the American Sociological Association's code of ethics.

Selection of Variables

As this research represents an opportunity to examine a possible extension to transculturation theory, the author used eight independent variables and one dependent variable for analysis. Plans after college (PAC) is the dependent variable while cultural orientation (COR); help Native Americans (HNA); and financial gain (FIG) are the three major independent variables. Essentially, this paper is an attempt to examine how these variables are associated with each other. Five additional variables, gender (GEN); age of the participant (AGE); year in college (YIC); personal background (PBK); and nature of college experience (NCE) are included as a way to add context to the analyses and further insight into plans after college for this sample of American Indian students.

Operationalization of Variables

All variables were measured either by using a single-item question (coded as a dummy variable), a single semantic differential item, or created with a scale using several questionnaire items (see Table 1). Independent and dependent variables were operationalized and measured in the following fashion:

Independent Variables.

- Gender (GEN) – gender identification offered by the participant (coded: 0 = male, 1 = female).
- Age (AGE) – the self-reported age indicated by the participant (coded: 1 = 20 years and younger; 2 = 21 to 24 years; 3 = 25 to 29 years; 4 = 30 years or older).
- Year in College (YIC) – the self-reported class standing indicated by the participant (coded: 1 = freshman; 2 = sophomore; 3 = junior; 4 = senior; 5 = graduate).

- Personal Background (PBK) – the score on a scale created by combining two questionnaire items (see Table 1).
- Cultural Orientation (COR) – the score on a scale created by combining four questionnaire items (see Table 1).
- Nature of College Experience (NCE) – the score on a scale created by combining six questionnaire items (see Table 1).
- Help Native Americans (HNA) – the self-reported desire to use higher education as a means to serve Native American peoples (measured by a single semantic differential item coded 0 = least likely to 5 = most likely).
- Financial Gain (FIG) – the self-reported desire to use higher education as a means for financial gain (measured by a single semantic differential item coded 0 = least likely to 5 = most likely).

Dependent Variable.

- Plans After College (PAC) – the self-reported plan to live on a reservation following college (coded 0 = no, 1 = yes).

Table 1 presents the specific questionnaire items used for each scale along with its associated Cronbach's Coefficient Alpha of reliability. The variables personal background (PBK) and nature of college experience (NCE) revealed reliabilities of .8 and .625 respectively. Cultural orientation evidenced a somewhat low but still useable reliability of .577 (Hulin, Netemeyer, & Cudeck, 2001).

Statistical Procedures

Statistical analysis of the data consisted of Pearson correlation, regression analysis, and t-tests. Pearson correlation and regression analysis provide the means for exploring general relationships between the variables. Regression analysis also indicates the amount of variance in the variable plans after college (PAC) accounted for by the independent variables. Moreover, a t-test is used to compare the participants who report they plan to live on a reservation following college with those who report plans to live away from a reservation following college.

The study involved a small sample size. As such caution is required in the interpretation of the findings due to the potentially enhanced distortions produced by sampling errors and selection bias. Nevertheless, the statistical procedures used for the analysis of these data are frequently and successfully employed with small sample sizes.

Table 1
Scales and Reliability Coefficients

Personal Background (2 items; $\alpha = .800$)
1) While growing up, did you spend most of your life on a reservation?
2) Would you say the majority of the students at your high school were American Indian or non-Indian?
Cultural Orientation (4 items; $\alpha = .577$)
1) Do you speak a Native American language?
2) Did you ever participate in any American Indian ceremonies (such as powwows) before coming to college?
3) Do you think American Indian values and non-Indian values are basically different?
4) Overall, I feel my experience in college has caused me to appreciate my American Indian values and heritage.
Nature of College Experience (6 items; $\alpha = .625$)
1) I sometimes fear that being in college will cause me to lose my "Indianness" (e.g., identification with American Indian people, etc.)
2) Since I have been in college, I sometimes feel more isolated from other American Indian people.
3) I believe that some American Indian people will not accept me because of my education.
4) Overall, how would you rate your college experience?
5) Overall, how would you rate your feelings of loneliness since being in college?
6) Overall, how would you rate your general relations/interactions with other American Indian people since being in college?

Findings

Table 2 represents the zero-order correlations among the variables. Most notable are the significant correlations with the dependent variable plans after college (PAC). This particular variable is statistically significantly correlated with three of the independent variables: personal background (PBK), $r = .325, p < .01$; cultural orientation (COR), $r = .243, p < .05$; and help Native Americans (HNA), $r = .503, p < .01$. Additionally, while not statistically significant, it is important to note that plans after college (PAC) is negatively correlated with financial gain (FIG), $r = -.132$, not significant. Thus, there is some evidence, albeit weak, that a report to live on a reservation is inversely related to notions that higher education is to be used for personal financial gain among this sample of American Indian students.

Other statistically significant correlations of note include the variables help Native Americans (HNA) and financial gain (FIG). Help Native Americans (HNA) is significantly correlated with gender (GEN), $r = .223, p < .05$; age (AGE), $r = .275, p < .05$; personal background (PBK), $r = .245, p < .05$; and cultural orientation (COR), $r = .421, p < .01$. Thus, a desire to use higher education as a way to serve Native peoples is associated with being female, coming from a reservation, attending a high school with a large number of American Indians, and having a more culturally traditional orientation.

The variable financial gain (FIG) is significantly correlated with two variables. Specifically, financial gain (FIG) is inversely correlated with age (AGE), $r = -.212, p < .05$ and cultural orientation, $r = -.349, p < .01$. Thus among this sample being younger and holding a less culturally traditional orientation are associated with a view that higher education should be used for financial gain.

The findings generated by regression analysis are generally consistent with and support the correlation findings (see Table 3). Namely, the independent variable help Native Americans (HNA) is strongly associated with the dependent variable plans after college (PAC), Beta = .412, $p < .01$. Collectively the eight independent variables account for about 29% of the variance in plans after college.

Analysis of the t-tests reveals several important differences between those who report a desire to live on a reservation following college and those who do not (see Table 4). Specifically, participants who report plans to live on a reservation following college are more likely to have grown up on a reservation and attended high school where a majority of the students were American Indian ($t = -3.15, p < .01$), have a more traditional cultural orientation ($t = -2.28, p < .05$), and report a desire to use higher education to serve Native peoples ($t = 5.33, p < .01$).

Discussion

The findings provide evidence that a plan to live on a reservation after college is associated with a desire to serve Native peoples among the participants of this investigation. The variable help Native Americans (HNA) was statistically and significantly related to the dependent variable plan to live on a reservation in both the correlation and regression analysis. Moreover, as revealed by the t-test analysis, there is a statistically significant difference on this variable among those who indicate a goal to live on a reservation following college compared to those who do not relate such plans. In short, those who report plans to live on a reservation after completing college are also more inclined to indicate a desire to use higher educational advancement to serve Native people.

Further, there is partial evidence indicating that the personal background and cultural orientation of the student are important factors in plans following college. Both correlations and t-test analyses suggest these variables are connected to plans to live on a reservation after college. Specifically, having a personal background in which one grew up on a reservation and attended a high school with American Indian students and being more aligned with Native traditions are connected to plans to return to a reservation to live after college. This finding is significant in that it does not support the general assertions of Vincent Tinto's interactionist theory (1993, 1997, 2002). Tinto's model of student departure is likely the most influential theory on student attrition and persistence (Braxton, 2002). Central to this framework is the notion that students must become socially and academically integrated into the higher educational institution even if this means abandoning former personal and community associations. Further, Tinto argues critical background characteristics play a major factor in the transition to higher educational institutions. Specifically, those who possess background characteristics different from the norms, values, and overall institutional culture of the university will have a more difficult transition to college than those students who are similar to the institution. As such, students with contrasting background characteristics must conform to the institutional milieu of the university. On this point, Tinto (1993) argues:

Such communities [of former association] differ from college not only in composition but also in the values, norms, and behavioral and intellectual styles that characterize their everyday life. As a result, the process leading to the adoption of behaviors and norms appropriate to the life of the college necessarily requires some degree of transformation and perhaps rejection of the norms

Table 2
Zero-Order Correlations Among Variables

Variables	GEN	AGE	YIC	PBK	COR	NCE	HNA	FIG
GEN	1.00							
AGE	0.207	1.00						
YIC	0.041	0.476**	1.00					
PBK	0.074	0.282**	0.205	1.00				
COR	0.085	0.449**	0.168	0.162	1.00			
NCE	0.022	-0.079	-0.005	0.167	0.073	1.00		
HNA	0.223*	0.275*	0.199	0.245*	0.421**	0.185	1.00	
FIG	-0.083	-0.212*	-0.074	-0.023	-0.349**	0.042	-0.073	1.00
PAC	0.110	0.177	0.181	0.325**	0.243*	0.151	0.503**	-0.132

* $p < .05$
** $p < .01$

GEN — Gender (0 = male; 1 = female)
AGE — Age (1 = 20 years and younger; 2 = 21 to 24 years; 3 = 25 to 29 years; 4 = 30 years old)
YIC — Year in College (1 = freshman; 2 = sophomore; 3 = junior; 4 = senior; 5 = graduate)
PBK — Personal Background (higher scores indicate greater connection to American Indian background)
COR — Cultural Orientation (higher scores indicate greater orientation to American Indian culture)
NCE — Nature of College Experience (higher scores indicate greater difficulty in the college experience)
HNA — Help Native Americans (higher scores indicate greater desire to use career to help Native American people)
FIG — Financial Gain (higher scores indicate greater desire to use career for personal financial gain)
PAC — Plans After College (0 = will not live on a reservation after college; 1 = will live on a reservation after college)

Table 3.
Multiple Regression Analysis for "Plans after College" Among American Indian College Students

Plans After College	Unstandardized beta	Standardized Beta
GEN	-.032	-.032
AGE	-.010	.024
YIC	-.019	.050
PBK	.100	.183
COR	.011	.049
NCE	.006	.053
HNA	.166	.412**
FIG	-.048	-.118
R	R ²	Adjusted R ²
.538	.290	.205

** $p < .01$

of past communities . . . In order to become fully incorporated into the life of the college, they have to physically as well as socially disassociate themselves from the communities of the past. (pp. 95–96)

Tinto admits this contention has serious implications for minority students: "In the typical institution, one would, therefore, expect persons of minority background and/or from very poor families, older adults, and persons from very small rural communities to be more likely to experience such problems [with transition to college] . . . than other students" (p. 445). Not surprisingly, Tinto's interactionist theory has also been severely criticized for the essentially assimilationist nature of this postulation (Nora, 2001; Pidgeon, 2008; Tierney, 1992).

While this paper does not explore the nature of attrition and persistence of American Indian college students, its findings do relate to assumptions found in both interactionist theory and transculturation theory. Specifically, interactionist theory also asserts that individual goals and ambitions can be fundamental to the persistence of college students. Personal ambitions serve as a goal for individuals to strive toward and can provide the wherewithal to persist in college (Engstrom & Tinto, 2008; Tinto, 1993). That these personal goals may include unique cultural considerations that may not facilitate the social integration of minority students such as American Indians into the mainstream university is not considered by interactionist theory (Rendon, Jalomo, & Nora, 2002). Transculturation theory, on the other hand, asserts that cultural uniqueness is instrumental to the higher educational success of American Indian students. Having a

strong cultural identity works to anchor individuals in their culture (and community) and ultimately works to provide confidence and a sense of purpose (Davis, 1992; Huffman, 2008; Okagaki et al., 2009; White Shield, 2009). The findings that the variables personal background, a Native American culturally traditional orientation, desire to use higher education to help other Native peoples, and a self-reported plan to return to a reservation following college are all significantly correlated with each other (see Table 2) would seem to signify that interactionist theory contains a number of weaknesses in regard to American Indian college experiences. The limitation in this contention, however, is the fact that the findings from this present investigation do not inform us on whether the students with these characteristics are indeed less successful in college as would be predicted by interactionist theory or more successful as would be predicted by transculturation theory.

Nevertheless, these findings indicate an extension to transculturation theory is in order. Namely, a logical modification of transculturation theory is the assertion that individuals with a strong cultural identity are likely to integrate that identity with a sense of community purpose. This assertion is most clearly evidenced in the finding that, compared to less culturally aligned individuals, culturally traditional students are more likely to report a desire to serve Native peoples and the goal to return to a reservation following college (see Tables 2 and 3).

Conclusion

The findings reported in this paper contain important applied and theoretical implications. In terms of their

Table 4
t-Test Analysis of Independent Variables by Plans After College

Variables	Will Live on a Reservation	Mean	S.D.	N	
Gender	No	0.61	0.493	51	$t = -1.01$, n.s.
	Yes	0.71	0.458	35	
Age	No	3.63	1.20	51	$t = -1.65$, n.s.
	Yes	4.06	1.16	35	
Year in College	No	2.28	1.28	50	$t = -1.67$, n.s.
	Yes	2.74	1.22	35	
Personal Background	No	1.02	0.927	51	$t = -3.15$, $p < .01$
	Yes	1.60	0.695	35	
Cultural Orientation	No	6.98	2.14	50	$t = -2.28$, $p < .05$
	Yes	8.03	2.01	35	
Nature of College Experience	No	15.46	4.07	50	$t = -1.33$, n.s.
	Yes	16.71	3.84	28	
Career to Help Native Americans	No	3.57	1.24	51	$t = 5.33$, $p < .01$
	Yes	4.77	0.598	35	
Career for Financial Gain	No	3.96	1.23	51	$t = 1.22$, n.s.
	Yes	3.63	1.26	35	

n.s. = not significant

practical implications, the findings indicate the potential for reservation community development and the retention of Native American cultural traditionalism are closely linked. The findings presented in this paper may not seem necessarily surprising to tribal elders and leaders who have long recognized that truly meaningful reservation community development can only be framed in the cultural values and worldview of the tribe (Brayboy, 2005; Deloria & Wildcat, 2001; Lomawaina & McCarty, 2002). However, the social science enterprise requires empirical documentation as a critical component of theory refinement. The individuals in this study who were more likely to report a desire to return to a reservation following college, also related an aspiration to help Native peoples and held a closer alignment with cultural traditions. In essence, it is the individual who value service and the cultural traditions of their people who express the greatest willingness to return to reservation communities. Such an important group of individuals can surely benefit tribal communities and it is imperative that colleges and universities strive to provide opportunities for greater academic success for Native students.

As reported at the beginning of this paper, unfortunately the lack of academic persistence has long characterized American Indian higher education and it is certain that large numbers of potential tribal leaders never complete their higher educational endeavors. While a higher education academic credential is not the only path to effective community leadership, given the need to balance the retention of valued cultural traditions with complex and pressing postmodern societal imperatives, individuals possessing both culturally traditional and mainstream skills is vital. It is on this point that the theoretical implications of this paper converge with the practical implications.

Transculturation theory asserts that a strong cultural identity is essential to the successful navigation through mainstream higher education. As mentioned previously, such an identity anchors an individual with a sense of place and purpose (Horse, 2005). As such, transculturation theory provides a conceptual framework whereby cultural traditions and identity are regarded as instrumental (rather than detrimental) to the educational efforts of Native peoples. Essentially, this theoretical perspective offers an opportunity to understand how mainstream higher education and Native traditionalism may be compatible. Huffman (2008) has previously outlined a number of practical ways higher educational institutions can work to facilitate a strong cultural identity for American Indian students. These recommendations include finding ways to celebrate American Indian ethnicity in order to affirm the cultural identity of students, provide culturally appropriate counseling, develop the interpersonal relations between faculty and American Indian students (including opportunities to enhance the cultural sensitivities of faculty), and offering sustained

support for outreach efforts to American Indians and Native student organizations.

The findings reported in this paper assist in a potentially important modification to transculturation theory. These findings provide empirical support that a logical extension of transculturation theory is the assertion individuals with a strong cultural identity are more likely to indicate a desire to return to tribal areas in order to serve Native peoples. This could prove to be an important amendment to this theoretical perspective that may aid scholars as they attempt to gain greater understanding on the association between cultural traditionalism and community development. Nevertheless, no one study can ever stand alone. Replication is essential, especially in the scientific mandate for theory building and testing. Further research, taking both quantitative and qualitative approaches, will prove greatly beneficial in developing greater understanding on the relationship between the higher education of American Indians and tribal community development. Greater scholarly activity will also reveal whether or not transculturation theory provides an effective way to consider and explain these phenomena.

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