This study examines the relationship among Chicano students' sense of belonging to colleges and universities, their cultural development, and their subsequent persistence. A survey questionnaire was given to a random sample of 687 Chicano students at 3 institutions of higher education in San Diego: a University of California campus (247 students), a California State University campus (339 students), and a California Community College campus (101 students). A 47-item questionnaire measured students' cultural responses; an additional 4 items measured their sense of belonging (as defined by Hurtado 1997). Analysis of the data indicated a high degree of biculturalism, and the significant but modest contribution to a sense of belonging indicated by the cultural response factors reflects the likelihood that Chicano student perceptions of their campus experiences and their subsequent persistence may be affected by the students' degree of biculturalism. Factors contributing significantly to a sense of belonging include a reasonable comfort level in social affiliations with white students, knowledge of Mexican history, positive perceptions of their primary (Mexican) culture, and a well-developed ethnic identity. The study concludes that these dimensions of development can be addressed positively by educational institutions through their curriculum, staffing patterns, and pedagogy. (Contains 13 references.) (RH)
THE RELATIONSHIP BETWEEN CULTURAL DEVELOPMENT, SENSE OF BELONGING, AND PERSISTENCE AMONG CHICANOS IN HIGHER EDUCATION: AN EXPLORATORY STUDY

BY

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Paper presented to the
Association for the Study of Higher Education
San Antonio, Texas
November 19, 1999

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This paper was presented at the annual meeting of the Association for the Study of Higher Education held in San Antonio, Texas, November 18-21, 1999. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.
Introduction

This study examines the effects of Chicano students’ cultural responses on their “Sense of Belonging” at three predominantly white institutions of higher education. Sense of Belonging is a construct developed by Hurtado and Carter (1997) to measure Chicano students’ perceptions of their connection to the college or university they attend and their subsequent persistence. This study also utilizes the research of Padilla and Keefe (1987), Darder, (1991), and La Fromboise et al. regarding the complex process of cultural development among Chicanos and its subsequent impact on Chicano students’ adjustment in various institutional environments. Thus, the study seeks to provide directions as to the relationship between Chicano students’ sense of belonging and their cultural development along with the effects of that relationship on Chicano students’ persistence in higher education.

The adjustment and persistence of Chicanos in higher education represent a critical aspect of the educational pipeline for this rapidly growing population. Due largely to a historical, sociocultural experience of racism and internal colonialism (Acuña, 1988; Barrera et al., 1972), educational outcomes for Chicanos have remained significantly lower than for the U. S., white population (Carter and Wilson, 1997). Hayes-Baustista et al., (1988) warned of the threat to our socioeconomic fabric posed by such stratified educational outcomes as Chicanos become a larger part of the labor force needed to generate public revenue. Thus, understanding the factors that contribute to Chicano students’ persistence and development becomes a critical policy issue as higher education enters the twenty-first century.
Theoretical and Conceptual Framework

Tinto’s (1993) theoretical model is generally considered the seminal framework of student persistence in higher education (Braxton et al., 1997; Cabrera et al., 1992). Tinto identified a number of critical variables that impact persistence and shaped them into a model that emphasizes the effects of the "institutional experiences" of students (Tinto, 1993).

Tinto’s work focused on the structural conditions of colleges and universities, i.e., those with strong, effective structural mechanisms for incorporating students into the intellectual and social life of the institution experience a lower rate of student departure. Tinto described his model as both longitudinal and interactional; individual student decisions about their persistence can be understood best within the longitudinal context in which the student interacts with the intellectual and social life of the institution. According to the Tinto model (1993), each student has a number of pre-college attributes, including family background, skills and abilities, and prior schooling. Those pre-college attributes combine to shape the student’s initial goals and commitment to graduation from his/her postsecondary institution.

The student then interacts with the postsecondary environment, a process described by Tinto as "institutional experience." Those experiences occur in two domains, the academic system and social system. The most critical elements within the academic system are academic performance and interaction with faculty and staff. The social system contains two main elements as well, extracurricular activities and peer group interactions.

Those two domains of institutional experiences lead directly to a level of academic and social integration, respectively, of the student into the institutional fabric. In turn, both dimensions of campus integration shape the student’s reformulated goals and commitments. Finally, those goals and commitments shape the student’s departure decision, whether to remain at the institution or leave (see Figure 1).

Although Tinto’s theory provides a theoretical framework for the persistence process of college students in general, he also described a number of
Figure 1: Tinto's longitudinal model of institutional departure (Tinto, 1993).
principles in the institutional experiences of underrepresented students of color. According to Tinto, academic and social integration need not occur for students on a campus-wide basis in order to enhance their likelihood of persistence. He recognized that a number of so-called "subcultures" exist among students in most postsecondary institutions, and that such subcultures can form an effective base from which underrepresented students can construct their niche and subsequently achieve an effective level of integration and persistence.

However, Tinto identified two caveats as important to that principle. One was the importance of having a critical mass of underrepresented student groups (e.g., African Americans, American Indians, Chicanos, Latinos, and Filipinos) to ensure the vitality of their campus subcultures. Another vital aspect of the effectiveness of campus subcultures in facilitating integration for their constituents, according to Tinto, concerns the degree of marginality experienced and perceived by such groups. Tinto asserted that most postsecondary institutions have an identifiable culture which defines the campus intellectual and social life. In turn, all groups (e.g., subcultures) on campus maintain a position relative to the mainstream institutional culture, ranging from its center to its periphery. According to Tinto, those subcultures which exist closer to the periphery of the mainstream institutional culture will be least effective in facilitating integration and subsequent persistence among its members.

The Tinto theoretical model has been well-recognized for its efficacy in providing a longitudinal explanation of the process that leads to postsecondary student decisions regarding persistence. Tinto emphasized that the experiences a student has after entering the institution have a much greater impact on his/her persistence than do pre-entry characteristics. Those institutional experiences, particularly as they occur among faculty, staff, and peers inside and outside the classroom, serve to establish a degree of academic and social integration that directly shapes the student's commitment to remain at the institution. Thus, academic and social integration, respectively, are identified as the key components of the persistence process for underrepresented students. Likewise, Tinto (1993) emphasized the importance of students' perceptions of their "congruence" with the campus culture:
However discerned, what matters is the view of the student. Whether there are objective grounds for mismatch is not necessarily of direct importance to the issue of individual departure. In most situations what matters is whether the individuals perceive themselves as being incongruent with the life of the institution, not whether other observers would agree with that assessment (p. 51, emphasis added).

A Critique and Extension of Tinto’s Model

Despite the recognition of Tinto’s theory on persistence in higher education, some researchers have criticized the model for its limited applicability to the experiences of students of color (Tierney, 1992; Braxton, et. al., 1997; Hurtado and Carter, 1997). Although Tinto addresses several issues related to the more complex persistence process of students of color (e.g., subcommunities, critical mass, and marginalization), there remain questions about the degree to which the elements of integration (and their conceptual foundations) explain persistence for students of color in Tinto’s model.

Hurtado and Carter (1997) offered several critiques of Tinto’s model that focus on the persistence of students of color. One such critique involves the concept called incongruence that underlies Tinto’s model. According to Tinto, students often drop out of college due to their perception of incongruence, i.e., their lack of “fit” with the intellectual and social norms of the institution. Hurtado and Carter posit that the normative assumptions embedded in incongruence are also reflected in Tinto’s major concept of integration. The historic lack of access to higher education for students of color and the differences between the traditional, subordinate cultures of many students of color and the institutional cultures found most often in higher education make such normative assumptions problematic. The implication that students of color must assimilate to mainstream, dominate institutional cultures contradicts the research findings that biculturalism and a well-developed ethnic identity are positive factors in the educational adjustment of students of color (Darder, 1991; Phinney, 1990; Phinney and Alipuria, 1990; Ramirez, 1984; La Framboise et. al., 1993).
Tinto’s use of the anthropological concept of “ritual” (Tinto, 1993) to describe the transition of students to college was also seen as problematic by both Tierney (1992) and Hurtado and Carter. In particular, Hurtado and Carter criticized the notion of “separation” described by Tinto as part of the ritualistic college adjustment process. The research findings of Hurtado and Carter (1997) indicated that maintaining supportive relationships with family and community were important to students of color. Rather than becoming independent, such students of color apparently benefit more from an interdependent relationship with family and community while adjusting to college.

Yet another criticism by Hurtado and Carter emphasized that Tinto, while describing the importance of the institutional core values, did not place institutional conditions as a component of his theoretical model. Despite the clear importance of the degree of supportive, “involving” institutional conditions to student persistence (Darder, 1992; Kuh and Shuh, 1991; Astin, 1993; Velásquez, 1995), Tinto’s model does not show a relationship between student characteristics and institutional conditions that drives students’ experiences in the academic and social realms of college.

Finally, Hurtado and Carter emphasize that most research attempting to empirically validate Tinto’s model tends to utilize only behavioral measures rather than measures of students’ perceptions. In other words, research often measures the degree of students’ institutional experiences (e.g. contact with faculty and staff, participation in extracurricular activities, etc.). Yet the students’ own perceptions of the degree to which their experiences are meaningful and contribute to their sense of belonging are seldom measured.

In order to fill the gaps in Tinto’s model as it applies to the persistence of students of color in higher education, Hurtado and Carter (1997) proposed an alternative model (see figure 2). The model views institutional selectivity and student characteristics as contributions to the ease of transition to college by students. Hurtado and Carter operationalized “Ease of Transition” through
Figure 2
Hurtado and Carter's (1997) Model of Sense of Belonging

College Structural Characteristic:
- Selectivity

Student Background Characteristics:
- Gender (Female)
- Academic Ability

Ease of Transition
- Cognitive Mapping
- Managing Resources
- Family Support/Independence
- Experienced Discrimination
- Campus Tension

Hostile Climate
- Part of the Campus Community
- Member of the Campus Community

Sense of Belonging to Campus Community
three subconcepts: "Cognitive Mapping," "Managing Resources," and "Family Support." In turn, students' Ease of Transition contributes directly to students perceptions of the institutional climate (referred to as "Hostile Climate" by Hurtado and Carter), which included "Experienced Discrimination" and "Campus Tensions." According to the model, students' perceptions of "Hostile Climate" have a direct effect on their "Sense of Belonging." Finally, one component of Ease of Transition, Cognitive Mapping, also had a direct effect on Sense of Belonging. The model assumes that students' Sense of Belonging contributes significantly to persistence.

The Hurtado and Carter model was tested empirically on 272 Latino college students. The model emphasizes Sense of Belonging as the critical measure of students' institutional experiences. By providing a measure of students' perceptions of how positive and meaningful these experiences are, the Hurtado and Carter model appears to provide a more realistic and less normative explanation of the persistence of students of color than does Tinto's concept of integration.

Cultural Development

Darder (1991) described the complex process of cultural development among Chicanos and other ethnic groups that occupy a subordinate sociopolitical position in the U.S. Much of the complexity lies in the need for Chicano students to negotiate the tension of moving between the primary/subordinate (Mexican) culture and the secondary/dominant culture of the U.S. mainstream. Described by Darder as the "bicultural struggle," this process becomes particularly salient within the context of students' adjustment in educational institutions.

According to Darder, Chicano students develop cultural responses that move in a direction toward or away from "bicultural affirmation," (figure 3). Darder's description of this process clearly indicates that Chicano students' most
A Critical Theory of Cultural Democracy

Sphere of Biculturalism

Dominant Culture

Subordinate Culture

From: A. Darden, 1991
adaptive cultural responses are those that reflect biculturalism, the ability of students to function effectively and comfortably in both the primary (Mexican) and secondary (U.S.) cultural systems. This conclusion is supported by other research (Stanton-Salazar, 1997; La Fromboisc et. al., 1993; Buriel, 1994), that emphasizes the efficacy of bicultural development among Chicanos and similarly situated students.

Darder's theory provides directions as to the complexity of Chicano cultural responses. Likewise, Ogbu and Matate-Bianchi differentiated between such students' "primary" cultural differences (e.g., language, values, customs, etc.) and "secondary" cultural differences (e.g., perceptions, of sociopolitical status within the racial-ethnic hierarchies of the U.S.). A similar dichotomy was established by Padilla and Keefe (1987) who clustered various dimensions of cultural responses into "Cultural Knowledge" and "Ethnic Loyalty," respectively.

In addition, the cultural responses described by Padilla and Keefe as Ethnic Loyalty appear to reflect the construct of "ethnic identity," described by Garcia (1983) as the "cognitive product of culture." Phinney (1993, 1990) and her colleagues, as well as Tatum (1997), have emphasized the importance of a well-developed ethnic identity among Chicanos and other students of color in terms of their general psychological adjustment and their achievement in educational settings.

The theory and research on Chicano cultural development, including ethnic identity, becomes critical within the frameworks of student development in higher education that place student identity in a prominent place. As noted by Pascarella and Terenzini (1991) in their extensive review of such literature:
“identity development occupies a central place in most psychological theories of change among college students” (p. 20). Despite the prominence of student identity as a developmental outcome, Pascarella and Terenzini also noted the absence of research that explains identity development among college students of color: “the nature of identity development among Black and other nonwhite students remains virtually unknown territory and constitutes a glaring and embarrassing gap in our theoretical knowledge” (p. 59).

The literature on Chicano students' cultural responses indicates a great degree of diversity among such students in their identity, values, language proficiencies, social affiliations, etc. Thus, generalizations regarding their "sense of belonging" on college and university campuses would seem inappropriate without consideration of the range of cultural differences and preferences among Chicano students.

**Method**

In order to examine the relationship between Chicano students' cultural development and their sense of belonging, a random sample of 687 Chicano students was obtained from three institutions of higher education in San Diego, California. The three institutions represented the levels of public higher education in California: a University of California campus (247 students), a California State University campus (339 students), and a California Community college (101 students).

A questionnaire was developed with forty-seven items designed to measure students' cultural responses. The items were adapted from the questionnaire developed by Padilla and Keefe (1987); it also included items
developed by Phinney (1989) to measure students' ethnic identity. The questionnaire also included four items designed to measure students' sense of belonging as defined by Hurtado and Carter (see Table 1). The questionnaire was mailed to students; a second follow-up questionnaire was mailed to those who did not respond initially. The 687 responses represented a response rate of approximately 35%.

Table 1 - Questionnaire Items: Sense of Belonging (Five Point Likert Scale - Strongly Agree to Strongly Disagree)

1. My campus is like a community in which I feel at home.
2. I have made some very good friends since coming to my campus.
3. I have become acquainted with many faculty and/or staff at my campus.
4. There are many clubs, organizations, and activities at my campus that I feel comfortable getting involved with.

Factor Analysis

An analysis was conducted to develop factor analytical scales capturing the various dimensions of cultural responses identified by Padilla and Keefe and Phinney, respectively. The items measured students' language preferences in both Spanish and English, their knowledge of both Mexican and U.S. history and historical figures, the ethnic composition of their neighborhood and schools, their parents' language proficiencies, their preferences for Mexican and U.S. values, their patterns of social affiliations, their perceptions of discrimination, and their ethnic identity.
Factor analysis using the principle components method with orthogonal (VARIMAX) rotation was utilized to examine the dimensions of cultural responses among the Chicano students. The identification of eigenvalues greater than 1.0 and the interpretability of the factors indicated that the data was best described by an eight-factor solution. The factors and their reliabilities are shown in Table Two. Their reliabilities varied from moderate to high, indicating that respondents tended to answer items consistently.

Examination of the items comprising each factor showed fairly close similarity with the dimensions of cultural responses identified by Padilla and Keefe and Phinney, respectively. Factor one, Parents' Cultural Heritage, reflected the language proficiencies and place of origin of respondents' parents. Factor two, Mexican Values, captured respondents' perceptions of the degree to which Mexican cultural values were positive. Factor three, Integrated Socialization, described the degree of integration found in respondents' childhood neighborhood and high school, respectively.

The fourth factor, Ethnic Identity, measured respondents' perceptions of the development and saliency of their ethnic identity. Factor five, Social Affiliations, reflected respondents' comfort level and affinity for social affiliations with whites. Factor six, Mexican History, measured respondents' knowledge of Mexican history and historical figures, while factor seven, Perception of Discrimination, reflected the degree to which they perceived discrimination against Chicanos in society and in schools, respectively. Finally, the eighth factor, U.S. values, reflected respondents' perceptions of cultural values in the U.S.
Table 2 – Factors (with number of items) and Their Reliabilities

<table>
<thead>
<tr>
<th>Factor</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents' Cultural Heritage (6)</td>
<td>.81</td>
</tr>
<tr>
<td>Mexican Culture (5)</td>
<td>.75</td>
</tr>
<tr>
<td>Ethnic Identity (4)</td>
<td>.81</td>
</tr>
<tr>
<td>Social Affiliations (4)</td>
<td>.74</td>
</tr>
<tr>
<td>Mexican History (2)</td>
<td>.85</td>
</tr>
<tr>
<td>Integrated Socialization (4)</td>
<td>.97</td>
</tr>
<tr>
<td>Perception of Discrimination (3)</td>
<td>.74</td>
</tr>
</tbody>
</table>

Descriptive statistics, including frequencies, means, and standard deviations, for items within each factor were also examined to identify trends and directions.

Multiple Regression Analysis

A stepwise multiple regression analysis was conducted using the eight factors of cultural responses as independent variables and the four items measuring Sense of Belonging as the dependent variable. The objective was to identify the extent and direction of each factor’s contribution to the prediction of sense of belonging among these Chicano students.

Results

The analysis of descriptive statistics revealed a high degree of biculturalism among the 687 Chicano students in the sample. The students
showed relatively high mean scores on measures of proficiency in both Mexican (Means = 4.12 – 4.26 on Likert Scale range of 1 – 5) and U. S. (Means = 3.45 – 4.41) language and cultural domains. While the students tended toward more positive perceptions of Mexican culture and social affiliations with other Chicanos, their mean scores indicated a comfortable level of affinity with U. S. culture and social affiliations with whites. The students also had high mean scores on factor items that measured their ethnic identity development (Means = 4.09 – 4.61). On the other hand, the students' mean responses on measures of sense of belonging were modest (Means = 3.06 – 3.20).

The results from the regression analysis are shown in Table 3. The analysis revealed a positive, significant (p=.000) but modest contribution (R squared = .115) to sense of belonging by the eight factors of cultural responses. Five of the eight cultural response factors were included in the regression equation. The strongest contributing factor was Social Affiliations (Beta = .22), which indicated that Chicano students who were comfortable in social affiliations with white students were more likely to experience a higher level of sense of belonging on the campus. One factor, Parents' Cultural Heritage (Beta = -.08) made a negative contribution to the dependent variable. This indicated that Chicano students whose parents were born in Mexico and were Spanish-language dominant were less likely to perceive a high level of sense of belonging.
Table 3--Regression, Sense of Belonging on Cultural Response Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Beta</th>
<th>T</th>
<th>Sig T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents' Cultural Heritage</td>
<td>-.0809</td>
<td>-2.134</td>
<td>.03</td>
</tr>
<tr>
<td>Mexican Culture</td>
<td>.1135</td>
<td>3.058</td>
<td>.00</td>
</tr>
<tr>
<td>Ethnic Identity</td>
<td>.1458</td>
<td>4.000</td>
<td>.00</td>
</tr>
<tr>
<td>Social Affiliations</td>
<td>.2246</td>
<td>6.149</td>
<td>.00</td>
</tr>
<tr>
<td>Mexican History</td>
<td>.1459</td>
<td>3.922</td>
<td>.00</td>
</tr>
</tbody>
</table>

R square= .115, F=17.797*

*p<.000

Variables Not in Equation:
Integrated Socialization
Perception of Discrimination
United States Culture

The other three factors in the equation that made significant contributions to sense of belonging were Mexican History, (Beta = .145) which reflected a relatively high level of knowledge about Mexican History and Mexican Historical figures, and Ethnic Identity, (Beta = .113), which reflected a well-developed, salient ethnic identity, and Mexican Cultural Values (Beta = .113), which indicated positive perceptions about students' primary, Mexican culture. Three cultural response factors did not make a significant contribution to sense of belonging and were not in the final regression equation: Integrated Socialization, Perception of Discrimination, and U.S. Cultural Values.
Discussion

This exploratory study examines the relationship between the cultural development of Chicano students in higher education and their perceptions of Sense of Belonging on their college or university campus. The results indicated a high degree of biculturalism (proficiency in the cultural domains of both the Chicano/Mexicano and mainstream U. S. communities). The presence of such biculturalism among successful, persisting Chicano students reflects the literature documenting the positive effects of biculturalism on Chicano student adjustment.

The significant, modest contribution to sense of belonging by the eight cultural response factors indicates a likelihood that Chicano students’ perceptions of their campus experiences (and subsequent persistence) may be affected by their degree of biculturalism. Certain dimensions of their cultural development were found to contribute significantly to the students’ sense of belonging. These dimensions included a reasonable comfort level in social affiliations with white students, knowledge of Mexican history, positive perceptions of their primary (Mexican) culture, and a well-developed, salient ethnic identity.

These dimensions reflect areas of the students’ cognitive and social development that can be addressed positively by educational institutions through their curriculum, staffing patterns, and pedagogy. It would appear that a curriculum reflecting the experiences and contributions of diverse ethnic groups along with staff that provide diverse role models can contribute to students’ knowledge and positive perceptions of their own ethnic group (Darder, 1991). Such practices would also contribute to a strong ethnic identity among
Chicanos and other subordinate groups, reducing their stress and facilitating achievement (Tatum, 1997). The foundation of a strong ethnic identity, along with strategies that facilitate cooperative learning in integrated classrooms, can increase students' comfort level in their social affiliations with diverse student groups (La Fromboise et al. 1993). In addition, programs in schools at all levels can proactively address the transition and adjustment of Chicano students from traditional Mexican backgrounds who experience a strong sense of disconnect between their home culture and that of their educational institution.

The educational achievement of Chicanos at all levels remains a difficult challenge as the Chicano population continues to grow at a rapid pace. Unfortunately, the persistence levels of Chicanos in colleges and universities remain lower than for whites (and most other ethnic groups). These achievement gaps reflect a legacy of racism against Chicanos at both the societal and institutional levels and the tendency to construct educational interventions that are based on the supposed deficits of Chicano students (Ogbru and Matute-Bianchi, 1986; Darder, 1991; Aguirre and Martinez, 1993). In order to reverse these patterns, institutions of higher education might operationalize their knowledge of theoretical frameworks sensitive to the experiences and perceptions of Chicano students (such as that of Hurtado and Carter, 1997). Likewise, their recognition of the diversity among Chicano students, the cultural strengths found within those students, and their potential to develop a functional level of biculturalism would seem prudent areas for incorporation into institutional policy and practice.
REFERENCES


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