ABSTRACT

Culture, Gender, Identity, and Adolescents’ Niche-Building Behavior:
A Cross-Cultural Comparison

by

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A cross-cultural examination of a selected group of Indian and American adolescents was conducted to understand the influence of cultural expectations, gender, and identity on adolescents’ niche-building behavior. For the purpose of the present study, adolescents’ niche was limited to their bedrooms. Data were collected from 285 American adolescents of which 151 were females and 134 were males. The Indian sample consisted of 198 adolescents of whom 75 were females, 118 were males, and 5 adolescents who did not mention their gender. Participants from both cultures were from eighth and ninth grades, with an age range of 12.17 to 16.50 years.

The results of the study showed that adolescents’ niche-building behavior differed based on culture, gender, and identity. Indian adolescents possessed/desired a greater variety of electronic equipment, furniture, and decorative items in their bedrooms as compared to their American counterparts. Females had/desired a larger variety of items in their bedrooms as compared to males. Females had/desired more relationship items like
pictures of family members and make-up accessories in their bedrooms, whereas males had/desired more instrumental items like athletic equipment or sporting goods. Interestingly, more females than males had/desired pictures of themselves that reflected “who they were.” A higher percentage of diffused/avoidant adolescents had/desired items and possessions in their bedrooms as compared to achieved/moratorium or foreclosed adolescents. Achieved/moratorium as well as diffused/avoidant adolescents were more likely to have/desire computers, internet access, globes or maps in their bedrooms as compared to foreclosed adolescents who were more likely to have/desire religious items. Interaction effects showed that Indian females were mostly likely to have/desire possessions in their bedrooms followed by American females, Indian males, and American males.
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CHAPTER I
INTRODUCTION

Problem

Erikson’s (1968) psychosocial theory delineates eight stages of human development. Each stage is characterized by a conflict, an effective resolution of which results in progression to the next stage. Adolescence is characterized by the conflict between identity achievement and role confusion. Erikson proposed that the issue of identity emerges during adolescence because of the attained physical, mental, and social maturity occurring during this stage, which helps in the transition from childhood to adulthood. A successful resolution of this stage results in a secure ego-identity that helps to form the perception of the self as a unique, coherent being over varying periods of time and situations. Resolution of the “identity crisis” helps to integrate “past identifications with present competency and future aspiration, resulting in a sense of self founded in experience and association with significant others” (Jones, Hartmann, Grochowski, & Glider, 1989, p. 625). Lewis (2003) defined identity as the sum total of previous experiences, personal attributes, social expectations, and future orientations that provide the sense of sameness and continuity to the individual in a changing environment.

Erikson’s identity concept was operationalized and further elaborated by Marcia (1966) who conceived four identity statuses: achieved, moratorium, foreclosed, and diffused. Each identity status is characterized by different personality characteristics. Achieved adolescents have an internal locus of control, are resistant to peer pressure,
adolescents are characterized by identity confusion, ambivalence, a need to be alone, and intolerance towards peer pressure (Flum, 1994). Foreclosed adolescents have an external locus of control, strong identification with parents, and they tend to avoid introspection. They are dependent on others for self-worth and reinforcement (Flum). Diffused adolescents have an external locus of control, are prone to peer pressure, and are rebellious towards parental authority (Flum). They are evasive and indecisive towards problematic situations (Flum). Further, Berzonsky (1993) found that adolescents with different identity statuses used different information processing strategies, which he referred to as identity styles. Achieved/moratorium adolescents used an information-oriented identity style, characterized by problem-focused coping strategies. In contrast to this, foreclosed adolescents had a normative identity style, which was characterized by their dependence on social norms, and diffused adolescents had a diffused/avoidant identity style, which was characterized by emotion-focused coping strategies.

Identity is an evolving entity that is influenced by factors like gender, ethnicity, inherited predispositions, personal identifications, and effective defenses (Erikson, 1956). In return, identity influences others, as well as the environment, through interactions (Erikson). Two factors that are strongly related to identity development, which are considered for the present study are culture and gender. The choice of these two factors as determinants of identity is compelling because both of these factors permeate the realm of each individual’s existence and contribute to his/her development. Culture, as defined by Shweder, Goodnow, and Hatano (1998), is the set of norms, moral standards of right or wrong, social expectations, and gender role differentiation, all of which contribute to the socialization process of the adolescent. Socialization is the process of
acquiring the beliefs and behaviors of the culture in which the individual exists and is manifest in three outcomes (Arnett, 1995). First is the self-regulation, which is an individual’s ability to exercise self-control that is essential for conscience development. Second is role preparation, which becomes paramount during adolescence as adolescents make a transition from childhood to adulthood. As children reach adolescence, their cultures prepare them for the occupational, gender, and social roles that they are required to fulfill as adults. The third outcome is an understanding of what is valuable to one’s own existence that provides guidance in confronting existential questions. Adolescents have cognitive maturity that helps them realize this abstractness of life. Each culture has a different way of dealing with these three aspects of socialization and to the extent that adolescents maneuver these aspects, they become successful adults. Thus, the purpose of socialization is to establish limits and restrictions that are determined by the cultures. As mentioned by Scarr (1993), “cultures set a range of opportunities for development; they define the limits of what is desirable, ‘normal’ individual variation... Cultures define the range and focus of personal variation that is acceptable and rewarded” (p. 1335). Some cultures, like the American culture, favor broad socialization and encourage individualism that fosters uniqueness and self-expression. Others favor narrow socialization and encourage collectivism where obedience and conformity are considered to be of utmost importance.

Within cultural boundaries, adolescents have to find a balance between their individual aspirations and societal demands in order to develop a healthy identity. Although identity development requires the development of self as a separate being, Erikson (1968) stated that a healthy identity is an outcome of the individuals’ ability to
adapt to the social milieu in which they exist. Thus, a coherent identity is perceived to be the same and continuous not only by oneself but also by others. As Erikson stated, “ego identity then, in its subjective aspect, is the awareness of the fact that there is a self-sameness and continuity of one’s meaning for significant others in the immediate community” (p. 50). Emphasizing the role of cultural norms on identity development, he further said that although societies differ in their standards for passage through adolescence, each society has specific expectations about when identity development has to be completed: “Societies offer, as individuals require, more or less sanctioned intermediary periods between childhood and adulthood, institutionalized psychosocial moratoria, during which a lasting pattern of ‘inner identity’ is scheduled for relative completion” (Erikson, p. 66).

While Erikson (1968) proposed a universal theory of psychosocial development, there is evidence suggestive of cultural differences in the way that identity formation occurs (Adams, 1983). Researchers have argued that Erikson’s concept of identity development is an ethnocentric, western concept that may not be appropriate for explaining adolescent identity formation in eastern cultures (Côté & Levine, 1988; Ogbu, 1988; Spencer & Markstrom-Adams, 1990). In contrast to western cultures (e.g., the American culture), which encourage individuation, eastern cultures (e.g., the Indian culture) are more collectivistic in nature (Markus & Kitayama, 1991). Eastern cultures foster an identity that is interdependent and adheres to the societal rules. Under these circumstances, a foreclosed identity status, in an eastern culture, may be more adaptive than an achieved identity, thus fostering harmonious relationships between members of the society.
Apart from determining the standards of socialization, cultures also influence the biological aspects of adolescent development (Arnett, 1995). One such biological construct that is heavily shaped by culture and pervades all realms of adolescent life is gender. Arnett mentioned that sex referred to the biological status of being a male or female, whereas gender referred to the social status of an individual’s sex. The construction of gender was due to the cultural and social beliefs that influenced the ways an individual was perceived. One striking cultural expectation, which seems universal, is that female gender development is more restricted as compared to male gender development (Arnett). Females are expected to be nurturing and caring whereas males are expected to provide, protect, and procreate. Cultural differences in role expectations for the two genders set different trajectories for development, which greatly influences identity formation.

The effects of gender on identity have been studied by many researchers, some of whom have argued over Erikson’s proposition stating that the process for identity formation is different for males and females (Lewis, 2003). In western cultures, characteristics like commitment and exploration are more descriptive of the male identity development than of the female identity development. In many cultures, females are expected to be conforming and to derive their identities from their relationships with others. Such expectations can create confusion for a female adolescent who wants to establish an identity independent of others. Analysis of identity formation for the two genders along the ideological and interpersonal dimensions shows that gender differences were prevalent only for the interpersonal dimension (Lewis). These gender differences occur because, for a female adolescent, ideological and interpersonal developments occur
simultaneously, whereas, for a male, they occur separately (Lewis). This implies that a female’s identity development may be more complex than that of a male’s. A female has to stabilize her values and beliefs in various spheres in order to form a multidimensional identity. Based on these findings, it is hypothesized that culture would foster gender differences, which in turn would be prevalent in identity formation.

Identity is highly dependent on environmental interactions and experiences that are encountered by the individuals (Jones et al., 1989). According to Scarr (1992), development is a two-way process where individuals influence their environment as much as their environment influences them. This active person-environment interaction has been referred to as niche-building behavior by Scarr and McCartney (1983). An excellent example that demonstrates an active individual-environment interaction comes from the study of non-shared environments of siblings. Klump Wonderlich, Lehoux, Lilenfeil, and Bulikm (2002) defined the nonshared environment as the environmental experiences that are unique to the siblings living in the same family and includes important factors like differential treatments by the parents, birth order, sibling relationships, peer groups, school, and so forth. Wonderlich, Ukestad, and Perzacki (1994) found that women with bulimia nervosa reported their fathers to be significantly less affectionate as compared to others. However, Karwautz, Rabe-Hesketh, Collier, and Treasure (2002) found that individuals with eating disorders were more likely suffer from mood disorder or personality disorder as compared to their siblings, which might elicit such responses from their environment. This differential interaction between the individuals and their environment may account for the differences in their well-being. Identifying these non-shared environments in the adolescents’ niche can provide a
significant insight into their development. It seems that individuals with different personalities evoke different responses from their environment and thus are likely to differ in the types of niches they create for themselves. For Erikson (1956), niche-building happens simultaneously with identity development, as it is during this period that the adolescent engages in behaviors that help him find a “niche which is firmly defined and yet seems to be uniquely made for him” (p. 66). However, not much research has been done to address the ways in which adolescents have an impact on others and their surroundings. The present study attempted to address this issue by studying the niche-building behavior of adolescents who differed in their identity statuses. Additionally, since culture and gender influence identity statuses, it is hypothesized that these two factors will also influence adolescent niche-building behavior.

Purpose of the Study

The present study aimed at a cross-cultural comparison of gender and identity development on niche-building behavior in a selected group of American and Indian adolescents. Based on the above argument, it appears that a cross-cultural comparison of American adolescents with Indian adolescents will show more achieved adolescents in an American culture and more foreclosed adolescents in the Indian culture. Since culture influences gender development, which in turn influences identity development, differences in identity formation of the two genders reflecting cultural orientations of the adolescents is expected in the findings of the present study. Also, due to differences in identity formation emerging from differences in cultural values and gender role
expectations, adolescents in different cultures are expected to show differences in niche-building behavior.

Definitions

The following definitions provide a conceptual understanding of the terms that have been used throughout the present study. These definitions are reflective of previous research and theory regarding culture, gender, identity status, identity style, and niche-building behavior.

1. Culture: A set of norms, moral standards of right or wrong, role expectations, and gender roles etc., all of which determine the socialization process of the individual. For the purpose of the present study, the American and the Indian cultures are considered.

2. Gender: The social status of an individual’s sex, categorized as male or a female.

3. Identity status: Identity status may be defined along the dimensions of levels of exploration of opportunities, and commitment to specific beliefs. Based on these two dimensions, Marcia (1966) conceived four adolescent identity statuses:

   a. Achieved adolescents, who have committed to specific beliefs after exploring their options.

   b. Moratorium adolescents are in the process of exploration, and have yet not made a commitment to the set of beliefs that they want to adhere to.

   c. Foreclosed adolescents who have made an early commitment to their beliefs without exploring various options.
d. Diffused adolescents, who lack both commitment to beliefs and exploration of options.

4. Identity Style: Identity style refers to the cognitive styles that adolescents use for problem solving and can be of the following three types:

   a. Information-oriented identity style, which is a characteristic of achieved/moratorium adolescents who use problem-focused coping behavior.

   b. Normative identity style, which is used by foreclosed adolescents who depend on social norms for guidance.

   c. Diffused/avoidant identity style, which is a characteristic of diffused adolescents who use emotion-focused coping behavior.

5. Niche-building: An active, two-way individual-environment interaction that increases adaptability to the surroundings.

Research Questions

The purpose of the present study was to explore the relationships among culture, gender, and identity on the specific niche-building behavior in the bedrooms of the adolescents. In order to better understand how these factors influence adolescent behavior, the following research questions were investigated.

1. Is there a relationship among culture (American and Indian), gender (male and female), and identity style (achieved/moratorium, normative, or diffused/avoidant) of the adolescents?
2. Is there a relationship between a) culture and adolescent niche-building behavior, b) gender and adolescent niche-building behavior, as well as, c) identity style and adolescent niche-building behavior?

3. Is there a relationship between a) culture, gender, and adolescent niche-building behavior, b) culture, identity, and adolescent niche-building behavior, as well as, c) identity, gender, and adolescent niche-building behavior?

4. Is there a relationship between culture, gender, identity style, and adolescent niche-building behavior?
CHAPTER II

REVIEW OF LITERATURE

The present study focused on the effect of culture, gender, and identity development on the niche-building behavior of adolescents in American and Indian settings. The rationale for a cross-cultural comparison in the present study is an obvious lack of such research in the past. No studies were found in the review of literature that provided a direct comparison between an American and an indigenous Indian sample on the effect of culture, gender, and identity on adolescents’ niche-building behavior. The present study aims at understanding whether or not Marcia’s identity statuses hold true in cultures other than the American culture, and compares the effect of gender as well as identity on niche-building behavior of adolescents in these cultures. The discussion below provides a brief description of past studies on the topics of culture, gender, identity, and niche-building behavior of the adolescents and helps to create a background for the present research.

Identity Development

Erikson (1968) defined identity as the subjective awareness of a complete self that creates coherence or continuity over spatial-temporal dimensions. Identity is a psychosocial concept, which is the sum total of past experiences, future expectations, personal characteristics, potentials, values, goals, and social obligations, all of which provide a sense of purpose in life. Identity provides the person with a simultaneous feeling of integration and differentiation. Differentiation is reflected in the individuation
process where adolescents try to establish personal boundaries, recognize their worth, and engage in self-reflection through formal operational thinking (Josselson, 1980).

Adolescents’ uniqueness is manifested in their identity, which helps to distinguish them from others in specific ways (Waterman & Archer, 1990). Integration refers to that aspect of identity, which is communally integrated with others in terms of shared goals, roles, values, and beliefs. An important component of a healthy identity is the ability to participate in social-cognitive perspective taking and dialectic thinking (Markstrom-Adams, Ascione, Braegger, & Adams, 1993). Thus, identity development requires the ability to perceive and integrate the values of the self, others, and the society for adequate functioning. Marcia (1980) explained the development of identity in relation to self and others as follows:

An internal, self-constructed, dynamic organization of drives, abilities, beliefs, and individual’s history. The better developed this structure, the more aware individuals appear to be of their own uniqueness, and similarities to others, and their own strengths, and weaknesses in making their way in the world. The less developed this structure is, the more confused individuals seem about their own distinctiveness from others, and the more they have to rely on external sources to evaluate themselves. (p. 159).

Though identity development occurs throughout the life-span, it becomes considerably prominent as individuals reach adolescence (Waterman & Archer, 1990). Adolescence is marked by the transition from childhood to adulthood. The physical and
cognitive maturation that occurs during this stage is accompanied by changes in cultural expectations where the adolescent is expected to learn new ways of coping with the challenges of life. Adolescents reanalyze identifications and values, which were unquestioned during childhood. They try to identify which values best suit them, and increase their ability to function as healthy social adults. As stated by Erikson (1968):

The integration now taking place in the form of ego identity is more than the sum of the childhood identifications. It is the accrued experience of the ego's ability to integrate these identifications with the vicissitudes of the libido, with the aptitudes developed out of endowment, and with the opportunities offered in social roles (p. 228).

A successful resolution of these conflicts results in identity achievement, whereas unsuccessful resolution results in role confusion, during which, adolescents may temporarily over-identify with their idols to an extent that they lose their own identity (Erikson, 1968).

Identity Statuses

Elaborating on Erikson's theory of identity, Marcia (1966) concluded that the development of identity occurred along two dimensions: exploration/crisis, and commitment. Exploration or crisis signifies a period of active questioning and engaging in choices among meaningful alternatives in order to create a more complete sense of self. Exploration is triggered whenever an imbalance occurs between contradicting social factors and self-perception. Equilibrium is established by finding information that is
congruent with the individual's personal belief system. However, if equilibrium is not restored, existing standards have to be modified to strike a balance between the new and the pre-existing information. Commitment is the act of deciding on a particular set of goals, values, and beliefs to which one will adhere. Based on these two dimensions, Marcia described the following identity statuses, each differing from another on various personality characteristics: achievement, moratorium, foreclosed, and diffused.

Achieved individuals are high on exploration as well as commitment. They have critically evaluated the values and expectations of their parents, and have made commitments to their decisions after thoughtful analysis. They have an information-oriented approach towards problem solving which is characterized by problem focused coping strategies and evaluation of relevant information (Berzonsky, 1989b). These individuals have an internal locus of control, high self esteem, are resistant to peer-pressure, and are balanced thinkers (Berzonsky). They show high levels of cognitive thinking, decision-making skills, and are conscientious, agreeable, and open to new ideas (Berzonsky, 1990).

Individuals in the moratorium status postpone commitments but are actively exploring their options. Like the achieved adolescents, these adolescents, too, use the information-oriented problem solving approach (Berzonsky, 1990). Due to their lack of commitment, however, they are more open to new information as compared to the achieved adolescents. Moratorium adolescents are ambivalent towards their identity, engage in introspection, are less tolerant of peer pressure, and tend to experience anxiety and depression (Berzonsky).
The foreclosed identity status is characterized by strong commitments, which preclude extensive exploration. These early commitments are an outcome of the parental control. Unlike the achieved and moratorium adolescents, these individuals are more likely to judge any information on the basis of its source rather than its content (Berzonsky, 1990). Foreclosed adolescents have an external locus of control, are highly dependent on parental or social approval, and exhibit high levels of self-esteem. They refrain from any kind of introspection as it can generate a conflict in their values, and thus, have a low need to be alone. Their belief system is inflexible because they cannot tolerate ambiguous information, and hence, are resistant to change in their identity standards. They are conscientious and agreeable, but have a high need for structure and closure (Berzonsky & Kinney, 1995).

The diffused identity status characterizes adolescents who are low on exploration as well as commitment. These adolescents use avoidant information processing to solve their problems, and are evasive towards any challenging situations (Berzonsky, 1989b). Consequently, they show apathy in social feedback about their identity, which helps them to reduce the emotional distress associated with identity formation. They have not evaluated the standards for their values, and are confused about identity relevant issues, like career, education, or relationships. They have an external locus of control, poor decision-making skills, and they show an inability to predict future consequences of their behavior (Berzonsky, 1994). Due to their low dependency on parents, and because of their high need for peer approval, these adolescents are at the greatest risk for engaging in deviant behavior like drug-abuse or sexual activity, whereas foreclosed individuals are
least likely to engage such behaviors (Jones & Hartmann, 1989). Achieved and moratorium adolescents typically fall between diffused and foreclosed statuses on deviant behaviors.

Support for the differences in personality characteristics of adolescents with different identity statuses comes from the research conducted by Berzonsky (1992a), who studied the adolescents’ effectiveness in solving socio-cognitive issues and personal problems based on their identity styles. He stated that achieved and moratorium adolescents who actively searched for information had an identity style that was highly differentiated and well integrated. In contrast to these, normative or foreclosed individuals had a rigidly structured identity and distorted any information that threatened their identity. Finally, diffused adolescents delayed problem-solving behavior by basing the solution on hedonic cues, and developed a fragmented identity, which was loosely integrated. Berzonsky’s sample consisted of 171 college undergraduates (69 males and 102 females) between 18 and 25 years of age (median age = 19.7 years) who volunteered to participate in the study, and received class credit for their participation. The measure used to obtain information about the adolescents’ identity styles was the Revised Identity Style Inventory, which was a revision of the Identity Style Inventory (ISI). Participant’s socio-cognitive abilities were assessed by using two questionnaires, the first of which was the Folkman and Lazarus’s (1985) revised Ways of Coping Checklist. Since the participants were all college students, academic problems and stressors were considered as identity-relevant concerns. The participants responded to 32 items from the checklist in terms of a “specific examination” that they had found stressful and rated their responses.
on 5-point Likert scales about the extent to which they used the following five types of coping responses: problem-focused coping, wishful thinking, distancing and detachment, tension reduction, and seeking social support. The second measure used was the Alpert and Haber's (1960) Achievement Anxiety Test, which examined the manner in which individuals with different identity styles construed and reacted to the anxiety associated with academic stressors.

Correlations were obtained between the ISI and the two measures, which indicated that adolescents with an information-oriented identity style engaged in problem-focused coping behavior. They were also less likely to engage in wishful thinking or to develop anxiety when faced with stressful situations. Diffused adolescents with an avoidant-orientation were more likely to engage in emotion-focused coping strategies by distancing themselves from the problem, or by engaging in wishful thinking, and were also less likely to participate in problem-focused coping strategies. Adolescents with a normative identity style also favored emotional coping strategies and used similar approaches. However, the functions that emotional coping strategies served for diffused and normative adolescents were different. For the diffused adolescents, avoidance was a more generalized response whereas for the normative adolescents, avoidance was more problem-specific. Thus, avoidance helped the norm-oriented adolescents to maintain their commitments to specific values whereas avoidance allowed diffused adolescents to avoid the problems altogether.

In another study, Nurmi, Berzonsky, Tammi, and Kinney (1997) investigated the relationship between the identity styles of early adults, strategies they used for problem
solving, and the sense of wellness they experienced. The sample consisted of both American and Finnish students. There were 198 American students with the median age of 21 years. Of these participants, 51 were males and 147 were females. There were 109 Finnish students of which 47 were males and 62 females, with the median age of 22 years. Identity style was measured by using the Revised Identity Style Inventory. Cognitive strategies were measured by using the Strategy and Attribution Questionnaire that consisted of the following three scales: the success expectation scale, the task irrelevant behavior scale, and the social support scale. The success expectation scale consisted of six items and measured the extent to which people expected to succeed and were not apprehensive about failure. The task-irrelevant behavior scale consisted of five items that measured the degree to which people behaved in the ways that prevented them from, rather than helped them in carrying out the task. The seeking social support scale consisted of six items, which measured the degree to which people actively seek social support from others. Wellness was measured in terms of self-esteem and depression. Self-esteem was measured using the Rosenberg Self-Esteem Scale and depression was measured using the Beck’s Depression Inventory.

For the purpose of data gathering, the participants were provided with preliminary information about the study and then asked to fill out the questionnaires. The results of the study indicated that the relationship between identity styles and well-being was mediated by the cognitive strategies that participants used in solving the problems. Correlations showed that students with an information-oriented identity style used functional cognitive strategies like expecting success, seeking social support, and limiting
the use of task-irrelevant behavior. All of these strategies affected these students' self-esteem in a positive manner. In contrast to this, students with diffuse/avoidant identity style used dysfunctional cognitive strategies like expectations for failure, seeking limited social support, and engaging in a high level of task irrelevant behavior that increased their chances of getting depressed. These findings imply that the cognitive strategies used by individuals to solve identity issues are reflected in the specific ways in which they try to cope with challenges in their daily lives. Thus, identity-processing styles influenced well-being which was reflected in the use of cognitive strategies. However, as compared to these two identity styles, the relationship between a normative identity orientation style and wellness did not seem to be mediated by cognitive strategies. Such an outcome is likely to occur because individuals with a normative identity orientation have a pre-existing set of internalized values that reinforces their self-concept regardless of the cognitive strategies they develop. Further, the highest level of self-esteem was observed in participants with the information-oriented style, whereas individuals with a normative style had the most stable self-concept. Individuals with the diffuse/avoidant status had the highest level of depression. Individuals with an information-oriented identity style experienced high self-esteem because such an identity style is likely to lead to achievement and positive feedback in competitive situations. Norm-oriented individuals internalize societal expectations and avoid contradictory information developing a self-protective attitude, which generates a stable identity. For individuals with diffuse/avoidant styles, the inability to make decisions in competitive situations prolonged the issue of identity formation, which resulted in depression.
Identity and Culture

Identity construction is affected by numerous factors, two of which are culture and gender. Culture provides its members with shared norms, regulations, values, and attitudes that guide their behavior (Phinney, 1990). It provides a socio-cultural framework to understand what types of behavior are expected from the self and others in a given situation (Phinney). An adaptive identity can occur only when adolescents’ aspirations and predispositions are in tune with prevailing cultural expectations (Erikson, 1968).

Nakamura (1964) has argued that in the past there has been a tendency to dichotomize cultures as either western or eastern, presupposing that the two are mutually exclusive. They are considered to have opposite sets of values and are labeled as “occidental” in the west, which represents materialistic, extroverted, analytic, and objective values, and, “oriental” in the east, which represents spiritual, introverted, and subjective values.

Of all the eastern cultures, the present study focuses on the Indian culture as a source of influence on adolescent development. The Indian culture not only impacted the Indian sub-continent, but also other prominent countries like China and Japan, which adopted Buddhism as their major religion that had originated in India (Nakamura, 1964). Though the Indian culture has an inclination towards collectivism, it is interesting to note that the Indian philosophy also stresses individualism (Paranjpe, 1998). However, the concept of individualism in the Indian culture has very different implications than that in the American culture. In the American culture, the individual and the universal are all of equal importance. In contrast to this, individualism in the Indian culture sees the individual as a part of the universal. This characterization of an individual in the Indian
culture has been described by Nakamura as follows, “according to the way of thinking of most Indians, therefore, the essence of the individual or the particular is no more than the universal by virtue of which the individual or the particular is grounded and realized” (p. 47). Due to such differences in their value paradigms, the present study proposes that the two cultures will have different effects on identity development of the adolescents, which will generate differences in the niche-building behaviors of the adolescents in these cultures.

Helms (1995) stated that ethnic identity was a multifaceted, emerging concept that reflected the changes in individuals’ values, attitudes, and behaviors due to changes in their social, familial, and geographical composition. According to Phinney (1990), ethnic identity is an internal working system of a person’s beliefs, as well as expectations that s/he used for comparing not only her/himself but also others. She mentioned that development of a positive ethnic identity was essential for psychological wellness because it provides a sense of belongingness to the individual. A person with an integrated ethnic identity is able to create a balance between familial/cultural expectations and personal aspirations. The more the individual perceives his/her ethnic identity in a positive frame, the more likely s/he is to have a positive self-esteem. Such individuals also have better strategies for dealing with the issues of discrimination and stereotypes than those who are low on this dimension.

Erikson considered culture to be an important dimension of identity development. He stated that, “true identity depends on the support which the young receive from the collective sense of identity which social groups assign to: class, nationality, culture”
Individuals’ understanding of cultural norms highly increased their adaptability to the specific culture. Studies have shown that an individual’s inability to adjust to the cultural milieu is associated with reduced psychological well-being (French, Seidman, Allen, & Aber, 2000). In a study of adolescents belonging to Asian-American, Black, and Hispanic backgrounds, Phinney (1989) found that adolescents who had achieved ethnic identity had a positive self-esteem whereas those who did not explore their ethnic identity had a low self-esteem. Her study demonstrated that ethnic identity developed parallel to ego identity, suggesting a link between the two identity elements. The development of ethnic identity occurred in stages that were highly related to ego identity but were not determined by ego identity status. Phinney stated that ethnic identity development occurred through various stages. The first was the diffused ethnic identity state, which was marked by little or no exploration of one’s ethnicity and an unclear understanding of ethnic issues. This was followed by the foreclosed stage, which was characterized by little or no exploration of ethnicity, but a commitment to one’s ethnicity. The third stage was moratorium, which included exploration of ethnic issues, along with confusion about one’s own ethnicity. Fourth was the achieved stage in which the adolescent had actively explored his/her options and had developed an understanding of personal ethnicity.

In order to test this model, Phinney recruited a sample of 91 tenth graders of ages 15 to 17 years. There were 14 Asian Americans, 25 African Americans, 25 Hispanic Americans, and 27 Anglo Americans in the sample. Participants were interviewed using a revised version of the interview developed by Phinney and Traver (1988). The interview
obtained information on the adolescents’ ethnic identity and their self-concept. Ethnicity was measured by 20 questions that assessed the extent to which the participants had engaged in exploring their ethnicity; had made a commitment to an ethnic identity; and attitudes they had about their ethnicity. The questionnaire consisted of four scales from the Bronstein-Cruz Child/Adolescent Self-Concept and Adjustment Scale which were: self-evaluation, social and peer relations, family relations, and sense of mastery; and a scale of ego identity adapted from an inventory developed by Rosenthal, Gurney, and Moore (1981). Each item on the questionnaire was rated on 4-point scale from “not at all true about me” (1) to “very true about me” (4). Ratings of the items for each scale were averaged to yield a score between 1 and 4. A coding manual was developed, describing the characteristics of each stage of ethnic identity development. Coding for the White participants was not possible as they could not relate to ethnicity as an identity issue. Three trained graduate students independently coded the responses for each of the minority participants. The results supported the assumptions of the model for development of ethnic identity. Over half of the adolescents had not explored their ethnic identity. However, there seemed to be an overlap between adolescents with diffused and foreclosed ethnic identity status. About one fourth of the subjects were actively involved in exploring their ethnic identity and belonged to the moratorium stage in the area of ethnicity. The remaining adolescents were characterized by a confident sense of self as a minority group member who had explored their options in terms of ethnic identity development. These adolescents were considered to have an achieved ethnic identity.
In another study, Phinney and Alipuria (1990) compared the effect of ethnic identity search as well as commitment on the development of self-esteem of both minority group and white adolescents. A sample of 196 subjects was selected which consisted of Asian Americans (19 males, 22 females), Hispanic Americans (19 males, 59 females), African Americans (6 males, 25 females), and Anglo Americans (20 males, 26 females). The age range for the participants was 17-23 years, and the method for data collection was interview. The interview included questions about demographic variables (ethnic group, parental education, SES, birthplace, participant’s educational aspirations, and level in college), ethnic identity, and the importance of identity domains. In order to measure exploration and commitment within the ethnic domain, a measure was developed based on conceptualizations from both the ego-identity literature and the ethnic identity literature. Ethnic identity search was measured using six items, which asked the subjects to rate themselves on a 4-point scale as similar to or different from people who have experienced ethnic identity search. For ethnic identity commitment, four items were used on which the subjects rated themselves relative to people who have made an ethnic identity decision or commitment. Reliability of these measures was obtained by calculating Cronbach’s alpha, which was .69 for ethnic identity search and .59 for ethnic identity commitment. Importance of identity domains was measured by asking the subjects to rate five identity domains (occupation, politics, religion, sex role, and ethnicity) on a 4-point scale from not at all important to very important. The Rosenberg Self-Esteem inventory, which consists of 10 items, was used to measure the participants’ self-esteem. For data collection, questionnaires were administered in 17 general education
courses from behavioral sciences, humanities, and natural sciences. An analysis of variance was conducted separately for ethnic identity search and ethnic identity commitment. Results showed that African Americans had the highest score on ethnic identity search followed by Mexican Americans, Asian Americans, and Whites. The analysis of ethnic identity commitment scores did not vary significantly by ethnic groups.

The relationship of self-esteem to ethnic identity search and commitment was assessed by means of Pearson product moment correlations for each ethnic group. Results showed that ethnic identity search was highly correlated to self-esteem for African Americans and Mexican Americans. Ethnic identity commitment was positively correlated to self-esteem for all four groups, but more strongly for the African Americans, Mexican Americans, and Asian Americans, as compared to White Americans.

Although Erikson’s concept of identity lies within the realms of cultural norms, identity as described by Erikson referred to the development of self as independent of others. This conceptualization of identity reflected the western ideology, which emphasizes self-actualization and personal fulfillment. In contrast to this, eastern cultures value interdependence and foster identity development in a relational context (Blustein & Noumair, 1996). Previous work on the interdependent self emphasized how selves in many cultures shift, and define themselves according to various social role obligations and expectations. Self was inherently relational, and thus, was considered in an embedded context that incorporated the importance of relationships throughout a range of intrapsychic experiences (Blustein & Noumair). Lewis (2003) studied the impact of cultural differences on adolescent’s identity development. She found that Asian American
adolescents were more foreclosed/moratorium and less achieved as compared to African or Anglo American adolescents. Considering the fact that eastern cultures value interdependence, which discourages exploration and encourages adherence to social norms, it is not surprising that more Asian American adolescents were foreclosed. However, the unexpected result of having more Asian American adolescents in moratorium might be the result of the exposure that these individuals got in the college setting. A diverse setting like college gave the adolescents an opportunity to question their beliefs by exposing them to people who hold values that were discrepant from theirs. Also, the higher level of education that adolescents received in college forced them to think critically and analytically, which stimulated their identity development (Lewis).

Streitmatter (1988) also examined the influence of ethnicity on the development of identity status among early adolescents. Her sample consisted of 367 participants selected from grades 7 (47.4%) and 8 (52.6%), of which 51% of the participants were males and 49% were females. The ethnic composition of the sample was: 60% Anglo Americans, 22% Hispanic Americans, 12% Black Americans, 2% Native Americans, and 4% Asian Americans. The Extended Objective Measure of Ego Identity Status (EOM-EIS) was used as an instrument to collect data on the identity statuses of the participants. The EOM-EIS is an objective, self-report measure that examines four specific stages of psychosocial maturity: diffusion, foreclosure, moratorium, and identity achievement. The psychometric properties for the measure were generated based on the sample. Inter-scale correlations were calculated which deemed the measure as appropriate for investigating ethnicity by identity. Squared correlations indicated that the ideological and interpersonal
measures of achievement shared 50.4% of variance; for moratorium, this estimate was 39.7%; for foreclosure it was 64.0%; and diffusion it was 37.2%. For interpersonal achievement, the average square correlation was 27.9%. These estimates provide evidence for convergent validity between measures of achievement, and discriminant validity between achievement and remaining status scales. Similar results were obtained for the moratorium, foreclosure, and diffusion scales, suggesting that the measure was appropriate for investigating identity development during adolescence. A multivariate analysis of variance was used to investigate the identity by ethnicity relationship. Results showed that non-white respondents were significantly more foreclosed than their white counterparts on the issues of ethnicity. Such an outcome would be expected because adolescents belonging to minority ethnic group were raised with values that conflicted with the values of the dominant ethnic group. Adolescents from the minority ethnic groups had to balance the contradicting values of the two cultures, which created a psychological conflict in the adolescent. Thus, it was likely that many adolescents from minority groups were likely to be foreclosed or diffused as compared to adolescents from the mainstream culture.

The above discussion reveals that there is a relationship between identity development and the social or cultural values that prevail around the adolescent. The emphasis of western cultures on the development of an identity that is independent of others may not be encouraged by other cultures. The processes that count toward identity development vary according to the social affiliation of the adolescents, and even though
an achieved identity is the most adaptive status in western cultures, a foreclosed identity status might be more adaptive in eastern cultures (Streitmatter, 1988).

Identity and Gender

Identity is the outcome of interaction between individual characteristics and prevalent cultural values (Van Hoof & Raaijmakers, 2002). A characteristic that influences identity development is the person’s gender. Differences in identity formation based on gender originated from the differences in the cultural expectations for the gender based behavior. Most cultures favor a male identity that is constructed based on their vocation whereas for females, culturally appropriate identity construction is dependent on their intimate relationships (Lewis, 2003). Killen and Wainryb (1998) mentioned that based on these differences, gender strongly shaped the individuals’ thinking and behavior. It influenced all aspects of development, starting from family relations, to school performances, aspirations as well as the choices of role models. Because of its varied influences, gender is one of the foundations of development during adolescence. These researchers further mentioned that even though adolescent socialization based on gender is evident in both eastern and western cultures, it is more likely to be infused in every aspect of adolescent’s life in the eastern cultures as compared to the western cultures. In the eastern cultures, as children reach adolescence, socialization for males becomes more liberal whereas that for females becomes more restricted (Arnett, 1995).

Gender is a fixed part of identity development. It is the social dimension of the biological construct that defines the roles and behaviors for males and females (Robinson,
Block (1978) suggested that cultures described specific gender roles for males and females, which were internalized by the members of the society. Many cultures encourage males to be autonomous, competitive, and less emotional as compared to females who were encouraged to be nurturing, conforming, and non-aggressive. Social norms encourage intrapersonal development (self as a unique being) for males and interpersonal development (self in association with others) for females. Gender role stereotyping instills the fear of social isolation and abandonment in women, which exacerbates the difficulties of achieving a balanced identity.

Erikson mentioned that males and females had different patterns of identity development. However, he focused on an autonomous development of identity, biasing it towards the explanation of male identity formation. In contrast to Erikson, who described autonomy as a characteristic that was independent of others, Grotevant, Thorbecke, and Meyer (1982) mentioned that autonomy included both the ability to take care of the self as well as others. Block (1978) stated that healthy identity development required a balance between autonomy and dependence. This argument was further supported by Morgan and Farber (1982) who mentioned that Erikson’s theory was appropriate for male identity formation but was inadequate in explaining female identity development (that was governed more by personal relationships than by autonomy). For females, identity was a mixture of both autonomy and intimacy, whereas for males it consisted only of autonomy. This rendered identity development a more complex task for females than for males.
Lewis (2003) analyzed the development of males and females on ideological as well as interpersonal domains. She found significant differences between the genders for the interpersonal domain. Her study consisted of 434 college students, a majority of whom was between the ages of 18 and 23 years. Approximately 72% of the sample was female. The sample included 39% Anglo-Americans, 20% Hispanics, 18% Asians, 16% African Americans and rest were classified as “other.” Data were collected using a questionnaire, which consisted of questions pertaining to demographic variables like ethnicity (African American, Anglo American, Asian, Hispanic, American Indian, and Other), age, sex, SES, educational level, and identity status. The measure employed to gather data on identity status was the Extended Objective Measure of Ego Identity Status-2 (EOMEIS-2), which consists of 64 items that assess both ideological (occupation, religion, politics, and philosophical statuses) and interpersonal (friendship, dating, sex roles, and recreational choices) identity domains. This measure is moderately reliable, with alpha coefficients ranging from .62 to .75 for the ideological scores and .58 to .80 for interpersonal scores. To examine gender differences, t tests were run for each of the identity statuses. The findings of the study showed that males had higher levels of diffusion and foreclosure in the interpersonal domain as compared to females. Such differences occurred because for males, development in ideological and interpersonal spheres occurred independently as compared to females for whom development in the two spheres was simultaneous. Although both genders invested in interpersonal issues, boys used their affiliations to enhance individual success whereas girls focused on affiliations with the hope of enhancing success for all (Grotevant et al., 1982).
In another study, Pastorino and Dunham (1997) found gender differences in global and domain-specific statuses for six domains that covered both interpersonal and ideological areas for male and female adolescents. The researchers drew a sample of 210 students with an equal number of males and females from introductory psychology classes. The participants were between the ages of 18 and 21 years with the following ethnic composition: 87% Whites, 7.6% African Americans, 4.3% Hispanic Americans, and 1% Asian Americans. Data were collected using the Ego-Identity Interview developed by Grotevant and Cooper (1981), which is a semi-structured interview that provides domain-specific commitment and exploration scores for six domains: politics, occupation, religion, dating, friendship, and sex roles. For the purpose of the study, two coders using the response of the 30 participants established the inter-rater reliability. Reliabilities were based on the number of agreements between these coders divided by the number of judgments. A mean agreement of .83 was obtained for exploration ratings, .84 for commitment ratings, and .75 for identity status judgments. The combined ideological commitment and exploration scores were calculated by summing the scores from the occupational, religious, and political domains. Similarly, the combined interpersonal exploration and commitment scores were calculated by summing the scores from the dating, sex roles, and friendship domains. Correlations among the exploration scores and commitment scores for each domain also were examined. The distribution of identity statuses by domain for males and females was examined using chi-square analyses. The results indicated that fewer males were in the diffused status for politics whereas fewer females were in the diffused status for dating and sex roles. Analysis of the
data also showed that there were gender differences when domain-specific characteristics were examined separately but not when they were combined into a global characteristics.

Further support for the influence of gender on identity development comes from Raskin (2002), who demonstrated that females were more likely to experience conflict between autonomy and intimacy. In order to establish a balance between these opposite ends, females established identity patterns that were more permeable as compared to those of the males. Females who value autonomy might experience difficulty due to cultural expectations for their roles as caretakers. For females, commitment to non-gendered activities can result in conflict, and their identity development would be characterized as conflicted achievement that included elements of both conflict and commitment in an identity (Raskin). Such an identity status resembles both moratorium and achievement on selected outcome variables. However, it is not pure moratorium because the participants were aware of their commitments and at the same time it is not pure achievement because the participants were constantly evaluating their choices and decisions. Thus, identity is a multifaceted concept for females who have to integrate the values of independence associated in their ideological domain with connectedness, which is related to their interpersonal domain.

Culture, Identity, Gender, and Niche-Building

Identity development is a reciprocal event, where it is influenced by some factors and in turn influences other factors like adolescent’s niche-building behavior. As adolescents develop, they repeatedly make choices about what aspects of environment
they want to attend (Scarr & McCartney, 1983). The idea of choice implies that
individuals make active decisions about the factors that they want to include in their
surroundings. This active person-environment interaction, where the person develops
competencies that help him/her thrive in his/her environment, has been referred to as
niche-building behavior by Scarr and McCartney. Rapoport (1985) suggested that niche-
building behavior helped to establish harmony between the adolescents and their
environment supporting their identity statuses.

As discussed previously, an important aspect of identity development is the
differentiation of the self from others. Adolescent individuation is reflected in the
autonomy that they have established in their emotional well-being, values, and behavioral
functioning, all of which may influence their niche-building behavior (Josselson, 1980).
According to Caspi, Bem, and Elder (1989), individuals maintain a coherent identity as
they engage in ever evolving, reciprocal interactions with their environments during the
process of niche-building. These researchers hypothesized that an individual’s
dispositions result in the selection of environments that, in turn, reinforce the same
dispositions. They stated, “In our view, a person’s selection and creation of environments
is one of the most individualizing, and pervasive expressions of his or her personality” (p.
377). According to these researchers:

[An individual’s behavior patterns] are sustained across the life course by the
progressive accumulation of their own consequences, producing what we have
chosen to call cumulative continuity. The second interactional process that seems
capable of promoting the long-term continuity of personality is the reciprocal,
dynamic transaction between the person and the environment: the person acts, the environment reacts, and the person reacts back. (p. 377-378)

Caspi et al. (1989) mentioned that “individuals selectively seek out, elicit, and attend to information that confirms rather than disconfirms their self-concepts. This promotes stability of the self-concept, which, in turn, promotes the continuity of behavioral patterns that are ‘congruent’ with the self-concept” (p. 378). They concluded by stating that:

In these several ways, then, an ensemble of behaviors, expectations, and self-concepts evokes supporting, maintaining, and validating responses from others in ongoing social interaction. This produces what we have called interactional continuity, a continuity that is most likely to be observed in the life course whenever the conditions that originally gave rise to the components of the ensemble are replicated. (p. 379)

In order to study this hypothesis, Caspi et al. (1989) designed a longitudinal study and gathered data from 214 Anglo-American participants over a period of 30 years. The original sample consisted of 102 males, of which 87 were interviewed in adulthood and 112 females, of which 95 were followed up in the later years. Childhood data were obtained from clinical interviews with mothers and three types of childhood interactional styles were measured: (a) ill-temperedness and verbal explosions; (b) shyness and excessively reserved behavior; and (c) dependency and attention demanding. Two clinicians who examined each participant’s early adolescent case materials collected adolescent and adult data. These clinicians provided the Q-sort description of the subjects using both the 63-item interpersonal Q-set, and the 104 item version of the California Q-
Data for late adolescents was collected in a similar manner by an independent set of judges. The results of the study showed that children with an ill-tempered disposition were more likely to grow up as adults who were impulsive, irritable, and emotionally unstable. Compared to others, these individuals were less likely to reach higher occupational levels, have an irregular work history, and were more likely to divorce. Sex differences became relevant for children with a shy disposition. Shy boys were more likely to become adults who were socially inept, withdrawn, had delayed marriages and parenthood. In contrast, shy girls were more likely than other women to follow conventional patterns of marriage, childbearing, and homemaking. For childhood dependency, gender differences were found, where dependent boys grew up to be agreeable, calm men, but dependent girls became disagreeable women who lacked meaningfulness in their lives. Thus, it appears that interactions between the individuals and their environment are a reflection of their identity as they actively seek environments that are favorable to their disposition (Allport, 1937).

Individuals not only seek but also create and manipulate their environments in order to reinforce their behavior (Plomin, 1986). Individuals with a certain identity status are likely to receive certain kinds of parenting, evoke certain responses from others, and select specific aspects from the available environment, which then influences their niche-building behavior. Plomin mentioned that individuals create their own micro-environments by the way they evoke responses from others, as well as how actively they select or ignore the available opportunities which shape their experiences. According to Scarr (1992), individuals create unique trajectories for their development through their
choices about what aspects of environment they want to interact with. She stated that individuals created their own niche from the opportunities afforded by their environments, which in turn influenced their development considerably. As mentioned by Scarr, “many environmental opportunities were taken in by some individuals and not by others, depending on the individuals’ characteristics” (p. 8). Silbereisen and Eyferth (1986) are convinced that “young people in action with their context create the basis of their own development” (p. 3). They mention that adolescents engage in self-initiated, purposeful behavior, which helps them in adjusting their goals and potentials to environmental demands and opportunities. Adolescents’ actions produce changes not only in them, but also in their environments, which further determine their development.

Niche-building is rather a passive activity during the early years of life but becomes more prominent during adolescence as individuals become more autonomous due to their increased physical and mental maturity (Plomin, 1986; Scarr, 1988). Children have less control over their environment, one that is mostly designed by their caregivers (Plomin). But as children become adolescents, the influence of their caregivers reduces and they actively create their own niche. Active niche-building reflects the adolescents’ ability to select, respond, and ignore specific aspects of the environment that increase their adaptability to the environment. Increased adaptation renders their environment more stimulating and compatible with their identity. Adolescents also evoke responses from others that are influenced by them, and in turn, influence their niche-building behavior. This is called evocative niche-building, and refers to the personality and identity characteristics of a person that extracts particular reactions from others (Plomin).
Caspi et al. (1989) found that children constructed their own personal space while building their niche. The ways in which children defined their personal space showed the socialization and regulation of personal interactions between family members. The sense of personal space grew stronger as children entered adolescence. Adolescents were more likely to show a strong sense of personal space by restricting access to their private spaces by others. Adolescence was the time when individuals focused on developing an identity and constructing a sense of self. At this time, defining personal space was an indication of their independence as well as a means for self-reflection, both of which were essential for identity formation.

The adolescent niche is characterized not only by their interactions with environments and their personal space, but also by the possessions that they acquire for themselves in their personal space. Silbereisen, Noack, and Eyferth (1986) argue that the personal possessions that adolescents have in their niche are reflective of their image of themselves, their desires for future, their assessments of their standard of living, status in relation to others, and past upbringing. These possessions may be symbols of self-identity, personal history, or a memento of life-review. They may represent a personal accomplishment or symbolize independence. They may also carry cultural or religious associations, and be a means for providing pleasure, escape, or security. Csikszentmihalyi and Rochberg-Halton (1981) mentioned that objects can be a source of differentiation, separating the owner from others and establishing his or her individuality. They can also be a source of similarity, where they express the integration of the owner with his/her social or cultural context.
Cultural factors decide what kinds of niche the adolescents will have to experience and adapt to in order to be adaptive. Super and Harkness (1986) mentioned that the developmental niche of the individuals was strongly affected by the culture in which they existed. These researchers stated that culture provided the physical and the social settings along with the values, all of which regulated the development of the individuals throughout the life span. Super and Harkness mentioned that “the regularities of the physical, social, behavioral, and psychological environments of children, as well as the thematic continuities from one culturally defined developmental stage to the next, provide the material from which the child abstracts the rules of the culture” (p. 234).

Further, Cole and Cole (1989) proposed a “cultural context” view of development, according to which variations in cultural values gave different meanings to otherwise identical events, which produced in different contexts for development in different cultures. These differences in developmental contexts led to the acquisition of different skills and competencies by individuals in different cultures, which influenced their niche-building behavior.

The idea that individuals create an environment that support their identity was studied by that Gosling, Craik, Martin, and Pryor (2005) who coined the term personal living space (PLS), which typically portrayed a niche that was carved by individuals for themselves and was an expression of their identity, gender, and culture. PLS was “typically a room nestling within a larger residential setting while affording primary territory for a designated individual” (p. 52), and included personal areas like an adolescents’ room within the household. The PLS served many functions and meanings
for the occupants and provided them with privacy, security, continuity, a medium for self-
representation, and regulated social interactions. It was a significant context, which
allowed for the expression of the psychological, cultural, economical, social, age, and
gender related issues of the occupants.

Gosling et al. (2005) contended that the individuals’ niche or personal living
space (PLSs) was a reflection of their gender, culture, and personality. In order to study
this proposition, these researchers studied the PLSs of 83 college students who
volunteered for the study. The average age of the participants was 22 years. The sample
had 65% women, and 30% men (5% was unspecified). The sample also had a reasonable
ethnic diversity with 42% Asians, 30% Whites, 20% others (8% unspecified). The PLSs
of these participants was measured using a specially designed instrument called the
Personal Living Space Cue Inventory (PLSCI) which dealt with both global as well as
specific aspects of the participants’ living with regards to their gender, ethnicity, and
personality. The participants were assured about the confidentiality of their information
and in order to the collect data they were requested not to alter or tidy their PLSs. The
coding of the questionnaire was done by a team of three coders who had no previous
contact with the participants, which further ensured the confidentiality of the information
provided by the participants.

The PLSCI consisted of two sets of questions. The first set consisted of Form A
that provided a global description of the participants’ PLSs (like gloomy-cheerful). The
second set consisted of three forms (B, C, and D) that provided information about the
specific contents of the participants’ PLSs. Only one coder coded each of these three
forms whereas, all the coders coded Form A. Form A included items that provided description for an overall appearance of the PLSs and included items like noise, lighting, odor, atmosphere, temperature, and general states of PLS. It also included items that pertained to the quantity and level of organization of books, clothing, magazines, CDs/records, and stationery. These items were coded by using bipolar ratings done on a 7-point scale, and an aggregate rating was obtained by computing the arithmetic mean of the three coders' ratings. For the second set of PLSCI, which consisted of forms B, C, and D, data was equally distributed among the coders of the purposes of coding. Form B included information about the walls and ceilings, posters, paintings, photos, floor, carpet, window coverings, and miscellaneous items. Form C included furniture, electronics, books, magazines, and CDs/records. Form D included stationery, beauty products, bags, miscellaneous categories, and clothing. Information about the participants' personality was obtained by self and peer reports, and was measured in terms of their openness to new experiences of the Big Five Inventory (John & Srivastava, 1999). In addition to this, seven observers examined each PLSs and completed the set of personality ratings about each participant, which was then used for evaluation purposes.

For the global descriptors, the means and standard deviations were calculated with the highest rating of 5.0 (SD = 1.0) for well-lit rooms, indicating that PLSs had good amounts of natural light. The lowest rating was for magazines (M = 1.5, SD = 0.75) indicating that participants did not have many magazines. The researchers divided the sample by gender and ethnicity and compared the PLSCI attributes and items across these groups. To test the reliability of the gender and the ethnic differences, they conducted a
series of t tests, which indicated that the gender and ethnic differences were reliable. To understand the influence of gender on PLSs, the researchers calculated the frequencies for each of the items for males and females. The findings of their analyses showed that compared to males, females have more items that related to their family and friends, had more flowers and plants but had fewer items that related to cars, fewer stereos, and athletic equipment. Women’s PLSs had more dolls, stuffed animals, beauty products and equipment, hair dryers, mirrors, and fashion magazines as compared to men’s PLSs. Also, women’s PLSs were relatively cleaner, in better condition, more decorated, organized, cheerful, colorful, comfortable, and stylish. In contrast to this, men’s PLSs were more mechanically oriented as reflected in their car-related décor and acquisition of athletic equipment. Support for this finding comes from Csikszentmihalyi and Rochberg-Halton (1981) who found that men and adolescents expressed a more differentiated sense of self in relation to their possessions, while women and older people tended more towards contemplation and other-orientation. For men, the meaning of possession was more self-oriented and instrumental, whereas for women, possessions were used to express more symbolic and other-oriented activities. These findings reflect the fact that gender role differences are still prevalent even at this age in the society. Thus, the gender of the inhabitants strongly influenced the way they created their PLSs.

To study the effect of ethnicity on PLSs, the percentages and means were calculated for the different ethnic groups. For the global descriptors, the only significant differences were that the Whites’ PLSs were significantly larger and more multipurpose than the Asians’ PLSs. The only item that distinctly distinguished between the two ethnic
groups and made sense conceptually was that Whites had more photographs of themselves as compared to Asians. This difference is likely to occur because western cultures emphasize individualistic values more than eastern cultures.

In order to assess the personality of the participants by observing their PLSs, the researchers examined implicit notions about the kind of PLSs features that might be associated with the inhabitant’s degree of openness. The researchers correlated the PLSCI items with the openness ratings made by seven observers who had viewed the PLSs. Correlations with the global descriptors showed that participants were judged to be high on openness if their PLSs had a wide variety of things and included different types of CDs, books, and magazines. These participants had PLSs that were multipurpose, distinctive, decorated, cluttered, and full. The specific coding indicated that observers marked those spaces as characteristic of openness that had books on academics, art, cooking, literatures, music, philosophy, poetry, and newspaper or new magazines. PLSs judged high on openness also had considerable number of international maps, international instruments, and eastern religious artifacts.

Adolescent niche-building behavior is an evolving process that can be understood in the context of how an adolescent’s identity influences it. However, as identity itself is an outcome of cultural variables and gender role assignments, it is implicated that an understanding of an adolescent niche will require an understanding of his/her culture and gender. Based on this argument, the present study focuses on the issue of how culture, gender, and identity interact with each other to influence adolescent niche-building behavior.
Chapter I stated the research questions about the relationships among culture, identity statuses, gender, and niche-building behaviors that will be examined in the present study. Past research has documented that adolescents in western cultures were more likely to be achieved as compared to adolescents in eastern culture. Research has also shown that identity development is different for females as compared to males. Finally, researchers have found that niche-building was an interactional process, where adolescents influence their environment as much as their environment influences them. These studies have been conducted in western cultures, and their implications in an eastern culture have not been tested. The present study focused on a cross-cultural comparison between an indigenous, Indian sample and a Caucasian, American sample in order to examine relations among culture, identity statuses, gender, and niche-building behavior. The purpose of this study was to investigate whether: (a) identity statuses were related to niche-building behavior of the adolescents, (b) gender was related to identity statuses and niche-building behavior of the adolescents, and (c) culture and gender were related to identity statuses and niche-building behavior among adolescents.
CHAPTER III

METHODS

Sample

In order to make cross-cultural comparisons between a selected group of American and Indian adolescents, data from two locations were collected. The American data was collected from Utah, whereas the Indian data was collected from Bihar. Both samples contained eighth- and ninth-grade students. The discussion below provides a description about how data were collected at the two different locations.

Sample 1: American Adolescents

This data set was collected from 285 Caucasian adolescents, out of which 123 were eighth graders and 162 were ninth graders. Of the 285 questionnaires that were distributed responses were obtained from 234 respondents. One hundred and fifty-one participants were female and 134 were male. The response rate was 82.1%, 85.4% for females and 78.4% for males. The age range for this sample was 13.08 to 15.83 years, with a mean age of 14.25 years. By grade, the response rates were 83.7% for the eighth grade and 80.9% for the ninth grade. The participants in this convenience sample belonged to either middle or an upper-middle socio-economic status. Additional information for this sample can be obtained from Taylor (2005).

Sample 2: Indian Adolescents

For data collection in India, a self-report measure, nearly identical to the one used by Taylor (2005), was sent through post to a contact in India. Data were collected from
two schools, which were contacted on previous occasions for the purpose of data collection. A convenience sample of students from eighth and ninth grade was selected to implement the survey that belonged to either middle or an upper-middle socioeconomic status. Two hundred and ten questionnaires were collected, out of which 198 were included for the study. Twelve questionnaires were not included because they were either incomplete or incomprehensible. Seventy-five (38.3%) respondents were female and 118 (60.2%) were male. The age range for the Indian sample was 12.17 to 16.5 years, with the mean age being 14.42 years. By grade, the response rates were 9.2% for eighth grade and 79.1% for ninth grade. The lower response rate for the eighth grade Indian students might result from the differences in the data collection for the American and the Indian sample. Data for the American sample was collected in two phases. The first phase consisted of a brief questionnaire used for screening participants who qualified for the study. The second phase dealt with the actual data collection from all those students who qualified during the first phase of selection. However, due to limited resources, collecting data in a similar way in an Indian setting was not feasible. The process was restricted to only the second phase, resulting in a poor response rate from the eighth-grade participants. Table 1 provides a summary for participants in both the samples.

Measurement

Questionnaire

Both samples were administered the “Adolescent Bedroom Design Checklist” (ABDC) questionnaire (Taylor & Jones, 2003) for the purpose of data collection. For the Indian sample, the purpose of the study was explained to the school administrators who
were first given the questionnaire to see if the questions were culturally appropriate for administering in the eastern setting and to make suggestions for changes if needed. A few changes were made to the original questionnaire including the following: A question which referred to the influence of girlfriend/boyfriend on niche-building behavior of the adolescent was changed to address the influence of relatives on the furnishing /arrangement /decoration of the bedroom. Also, five questions related to pubertal development were removed from the original questionnaire by the researcher considering them to be inappropriate for the Indian context. Once the feedback was obtained from the administrators, the questionnaire was modified, copied, and given to the instructors who administered it in their classrooms. The instructors were also asked to provide any
information about changes that should be made in order to increase the adaptability of the questionnaire to their classroom settings. As the survey was self-explanatory with instructions about filling out the different sections, there were no changes in the instructions for this sample. Participants were told that the information they provided would be strictly confidential. They required 60-90 minutes of uninterrupted time to complete the survey. After they completed the survey, participants were instructed to return the survey to their instructors who returned them to the contact. The contact then returned the questionnaires to the researcher through post.

The ABDC was used to gather information regarding the demographic characteristics of the adolescents, factors that influenced adolescents’ niche-building behavior, adolescents’ niche-building behavior, and their identity styles. As the present study did not focus on the factors that influenced adolescents’ niche-building behavior, this section was excluded from further analysis. The discussion here provides a detailed description of adolescents’ demographic characteristics, their niche-building behavior, and identity styles.

Demographic Information

The demographic section included questions pertaining to grade in school, gender, and age. In order to obtain information about living arrangements, the following questions were asked: “How many people (including yourself) live in your home?”; “During the past year have you changed the location of your bedroom?”; “Where is your bedroom located?”; “How many bedrooms are there in your home?”; and “During your typical 7 day week, the number of hours that you spend awake and asleep in your
bedroom are (hours spent each week awake in your bedroom; and hours spent each week asleep in your bedroom)." For the Caucasian adolescents, the mean number of people residing in the homes was 5.58, ($SD = 1.33$), and mean number of bedrooms was 4.90, ($SD = 1.37$). On average these adolescents spent 56.34 hours asleep per week in their bedrooms. No gender differences were found for the number of hours spent asleep. Similar information was generated for the Indian sample, which showed that the mean number of people living in the home for this sample was 6.97 ($SD = 3.82$) and the average number of bedrooms per household was 4.30 ($SD = 2.30$). On average, these adolescents spent 76.30 hours awake and 51.80 hours asleep per week in their bedroom. Again, no gender differences were found for the number of hours asleep for the Indian sample. One demographic variable that distinguished the American sample from the Indian sample was that the adolescents in the American sample had their own bedrooms, whereas no such information was obtained for the Indian sample.

**Adolescent Niche-building Behavior**

Information about how adolescents actively created their niche was obtained by using a multi-category checklist, which consisted of 158 items and included questions about different types of activities that the adolescents engaged in to arrange/furnish or decorate their bedrooms. The checklist included questions that ask how the adolescent had designed the bedroom in the past and provided each of them with a means to create a bedroom of their personal preference. Detailed information was obtained about the way in which they wanted to design their bedroom: types of furniture (like bookcase, tables and chairs, study desk and chair, etc), electronics (like, alarm clock, CD player, stereo,
telephone, TV, internet access, computer and printer, etc.), decorations (window coverings, flooring, items in bedroom), and remodeling of the bedroom (wall and/or ceiling paint, border of wallpaper, bedspread, etc.) that the adolescents wanted to introduce. Responses to these questions were coded as follows: “Have in my bedroom and satisfied with it,” “Have in my bedroom, but would like more or to replace with a different one,” “Don’t have but would like to have in my bedroom,” and “Don’t have and don’t want to have in my bedroom.”

Identity Style

Berzonsky’s (1988) Cognitive Style Inventory was used for measuring adolescents’ identity. It consisted of 39 items and was used not only because it was time efficient, but was also succinct in differentiating various types of adolescent identities. Berzonsky’s inventory is reflective of the adolescents’ cognitive capacity for problem solving and decision-making. Berzonsky (1990) stated, “By at least adolescence, individuals should have the cognitive ability to analyze issue-relevant information in a critical fashion and to evaluate their own thinking” (p. 166). Based on their responses to this measure, adolescents can be categorized into one of the following styles: information, normative, or diffused/avoidant. Each style reflects a unique intellectual capacity for coping with problems and decision-making. Berzonsky compared his identity styles with Marcia’s identity statuses:

Self explorers, moratoriums and achievers, are information-oriented, they seek out, elaborate and evaluate relevant information before making decisions, and committing themselves... foreclosures are norm-oriented. They focus on the
normative expectations held for them by significant referent others, parental figures being an example. Uncommitted diffusions tend to delay, and procrastinate until the hedonic cues in the immediate situation dictate a source of behavior. Their diffuse/avoidant orientation involves attempts to avoid confronting problems as long as possible. (Berzonsky, 1990, p.161)

Though most adolescents can apply all three types of cognitive styles, one style becomes more prominent than the others. Some of the questions that measure the cognitive ability of the respondents are: “I’ve more or less always operated according to the values with which I was brought up” (normative), “When I discuss an issue with someone, I try to assume their point of view and see the problem from their perspective” (information), “I’m not sure which values I really hold” (diffuse), “Many times by not concerning myself with personal problems, they work themselves out” (diffuse), “I prefer to deal with situations where I can rely on social norms and standards” (normative), “When making important decisions I like to have as much information as possible” (information), and “When I have a personal problem, I try to analyze the situation in order to understand it” (information). Response options range from “never,” “almost never,” “sometimes,” “most of the time,” “almost always,” “always,” to “does not apply to you.” The coefficient alpha for the diffused/avoidant measure was .73, for the normative measure, .66, and for the information measure, .62 (Berzonsky, 1992b). Test-retest reliability over a period of 5 weeks for the information measure was .86, and for the normative as well as diffuse/avoidant measure was .78 (Berzonsky, 1990). The inventory also has construct validity. Convergent validity for the inventory was obtained by comparing it with Grotevant and Adams’ (1984) Objective Measure of Ego Identity
Status (OMEIS). The OMEIS measures Marcia’s identity statuses, which are: achieved, moratorium, foreclosed, and diffused. Significant correlations were found between the OMEIS diffusion status and Berzonsky’s diffuse/avoidant status \((r = .62)\), as well as the OMEIS foreclosure status and Berzonsky’s normative status \((r = .47;\) Berzonsky, 1989). A correlation of .25 was found between the OMEIS achieve status and Berzonsky’s information status, which was significant too, whereas the correlation between the OMEIS moratorium status and Berzonsky’s information status was found to be non-significant \((r = 0.06)\) (Berzonsky). Cronbach’s alpha for the different subscales of the inventory was obtained for both the samples in the present study. For the American sample, Cronbach’s alpha for the normative subscale was .81, achieved/moratorium subscale was .79, and diffused/avoidant subscale was .43. For the Indian sample, a Cronbach’s alpha of .69 was obtained for the normative subscale, .67 was obtained for the achieved/moratorium subscale, and .18 was obtained for the diffused/avoidant subscale.

Research Design

The study was exploratory in nature and a cross-sectional design was implemented for data collection. The independent variables in the study were gender, culture, and identity style. The dependent variables were: (a) bedroom design preferences that included 13 furniture items (bookcase, computer desk and chair, make-up table with mirror, study desk and chair, etc.) and 13 electronic items (alarm clock, CD player, computer & printer, DVD player, electronic games, internet access, stereo, telephone, television, etc.); and (b) bedroom decoration that included 56 items (animal trophies,
aquarium and/or other pets, books that you like to read, camera and photography supplies, globe or maps, hanging decorative items, houseplants, jewelry, musical instruments, etc). Other items like remodeling, flooring, etc. were not analyzed because adolescents’ parents rather than adolescents make decision about them and thus these items are not reflective of adolescents’ niche-building behavior.

Data Analyses

For the purpose of data analysis, identity styles (achieved/moratorium, normative, and diffused/avoidant) were considered to be nominal, being mutually exclusive and exhaustive categories. Gender was also considered as a nominal variable with two categories: male and female. Culture again was a nominal variable with the two categories: American and Indian. Niche-building behavior was reflected in the items that the adolescents had in their bedrooms and included furniture, electronics, and decoration materials. For the present study, the questions and the analyses that were done for each question were as follows:

The first question was, “Is there a relationship among culture (American and Indian), gender (male and female), and identity style (achieved/moratorium, normative, or diffused/avoidant) of the adolescents?” In order to find out relationships between the independent variables, a chi-square analysis was done for culture and identity, as well as identity and gender.

The second question was, “Is there a relationship between (a) culture and adolescent niche-building behavior, (b) gender and adolescent niche-building behavior, as well as, (c) identity style and adolescent niche-building behavior?” The purpose of this
question was to find if a relationship existed between the independent variables and the dependent variable. Three separate analyses of variances (ANOVAs) were done with culture, gender, and identity style as the independent variables and niche-building items as the dependent variable.

The third question was, “Is there a relationship between (a) culture, gender, and adolescent niche-building behavior, (b) culture, identity, and adolescent niche-building behavior, as well as, (c) identity, gender, and adolescent niche-building behavior?” This question tried to identify the interaction effects for two independent variables when considered together. A 2 x 3 analysis of variance was done to identify the relationship between culture (American and Indian), gender (male and female), and niche-building behavior. The statistical analysis used for identifying relationship between culture, identity, and niche-building behavior was 2 x 3 analysis of variance with two types of cultures and three types of identity styles (achieved/moratorium, normative, and diffused/avoidant). Finally, a 3 x 2 analysis of variance was used for identifying relationships among identity, gender, and adolescent niche-building behavior.

The fourth question was, “Is there a relationship between culture, gender, identity style, and adolescent niche-building behavior?” This question tried to identify interaction effects for all the independent variables when considered together. The statistical analysis used was 2 x 2 x 3 analysis of variance resulting from the analysis of two types of cultures (American and Indian), two types of gender (male and female), and three types of identity styles (information, normative and diffuse/avoidant). Various niche-building items were considered to be the dependent variable.
The purpose of the present study was to identify relationships among culture, gender, identity, and adolescents' niche-building behavior in specific American and Indian cultural contexts. In this study, niche-building was restricted to adolescents' bedroom. The items that were examined within these niches were furniture, electronic goods, and decorative items. These items were coded so that the “Have in my bedroom and satisfied with it,” “Have in my bedroom, but would like more or to replace with a different one,” and “Don’t have but would like to have in my bedroom” categories were assigned a value of 1, whereas the fourth category, “Don’t have and don’t want to have,” was assigned the value of 0. Though the responses could be coded in many other ways, the present coding scheme was chosen to reduce the disparity between the American and the Indian samples. As mentioned earlier, the American adolescents had their own bedrooms, but no such information was obtained for the Indian adolescents. The inclusion of response category “Don’t have but would like to have in my bedroom” with categories “Have in my bedroom and satisfied with it” and “Have in my bedroom, but would like more or to replace with a different one” gives an equal opportunity to both American as well as Indian adolescents to create a bedroom that they desire irrespective of whether or not they have a bedroom of their own. Since there were numerous items that were being examined, setting the alpha level at .01 decreased the chances of obtaining spurious significance between the independent and the dependent variables due to alpha inflation.
Culture, Identity, and Gender

The independent variables in the study were identity style (achieved/moratorium, normative, and diffused/avoidant), gender (male and female), and culture (American and Indian), whereas the dependent variable was the various niche-building items. In order to find out if the independent variables were related, chi square comparisons were structured. The comparisons were made to examine the relationships between identity and culture, as well as culture and gender. These analyses showed that there was a significant relationship between identity and culture. More adolescents in the Indian culture had either an achieved/moratorium or diffused/avoidant identity style, whereas more adolescents in the American culture had a normative identity style (see Table 2). The analysis yielded a chi-square value of 64.65 ($4, N = 349$), which was statistically significant at $p = .001$. A second analysis revealed that gender and identity style were not related. A chi-square of 6.70 ($4, N = 349$) was obtained at $p = .15$ (see Table 3).

A summary for the percentage of adolescents belonging to different cultures, genders, and identity styles is provided in Table 4. As can be seen from the table, the highest percentage of Indian males was achieved/moratorium whereas the lowest percentage was obtained for Indian females. The highest percentage of the American females was normative whereas the lowest percentage was obtained for American males. Finally, the highest percentage of Indian males was diffused/avoidant whereas the lowest percentage was obtained for Indian females.
Table 2

*Percentage of Adolescents Belonging to Different Identity Styles by Cultures*

<table>
<thead>
<tr>
<th>Identity styles</th>
<th>American (N = 200) (%)</th>
<th>Indian (N = 149) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieved/Moratorium</td>
<td>24</td>
<td>32</td>
</tr>
<tr>
<td>Normative</td>
<td>49</td>
<td>9</td>
</tr>
<tr>
<td>Diffused/Avoidant</td>
<td>27</td>
<td>59</td>
</tr>
</tbody>
</table>

*p = .001.*

Table 3

*Percentage of Adolescents Belonging to Different Identity Styles by Gender*

<table>
<thead>
<tr>
<th>Identity styles</th>
<th>Males (N = 180) (%)</th>
<th>Females (N = 167) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieved/Moratorium</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Normative</td>
<td>28</td>
<td>37</td>
</tr>
<tr>
<td>Diffused/Avoidant</td>
<td>42</td>
<td>38</td>
</tr>
</tbody>
</table>

*p = .15.*
Table 4

Percentage of Adolescents for Culture, Gender, and Identity Styles

<table>
<thead>
<tr>
<th>Identity</th>
<th>American</th>
<th></th>
<th>Indian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>% within</td>
<td>% within</td>
</tr>
<tr>
<td></td>
<td>culture (N)</td>
<td>culture (N)</td>
<td>culture (N)</td>
</tr>
<tr>
<td>Achieved/Moratorium</td>
<td>23.60 (22)</td>
<td>24.30 (26)</td>
<td>37.9 (33)</td>
</tr>
<tr>
<td>Normative</td>
<td>46.20 (43)</td>
<td>51.40 (55)</td>
<td>8.0 (7)</td>
</tr>
<tr>
<td>Diffused/Avoidant</td>
<td>30.1 (28)</td>
<td>24.3 (26)</td>
<td>54 (47)</td>
</tr>
</tbody>
</table>

Note. N = Number of adolescents in each cell.

Culture and Niche-Building Behavior

The next step in the analysis was to examine the relationships between the independent variables and adolescents' niche-building behavior. In order to address this issue, analyses of variance (ANOVAs) were done for each independent variable with each of the niche-building items. As the present study did not hypothesize specific relationships between the independent variables and the different niche-building items, F-
values for the analyses were not reported. Table 5 shows that overall, Indian
adolescents had/desired more items in their rooms as compared to American adolescents.
Differences in percentages were obtained to show how much the Indian and the
American adolescents differed in their niche-building behaviors. A negative sign (see
Table 5) indicates that American adolescents were more likely to have/desire these items
as compared to the Indian adolescents. A higher percentage of Indian adolescents
had/desired an air-filled chair, bedroom set, bookcase, canopy bed, computer desk and
chair, make-up table with mirror, sofa and chair set, study desk and chair, as well as table
and chair in their bedrooms. In contrast to this, a higher percentage of American
adolescents had/desired a mattress for a bed in their rooms. Also, a higher percentage of
Indian adolescents had/desired a microwave oven or toaster oven, refrigerator, sewing
machine, whereas a higher percentage of American adolescents had/desired a stereo, and
a CD player. Eighty-one percent of Indian adolescents had/desired a computer and printer
as compared to 18% of the American adolescents, 35% of the Indian adolescents
had/desired internet access as compared to 14% of the American adolescents, and 63% of
the Indian adolescents had/desired electronic games as compared to 43% of the American
adolescents.

Cultural differences were found for the decorative items that the adolescents
had/desired in their bedrooms (see Table 5). Ninety-one percent of the Indian adolescents
had/desired books that they liked to read in their bedroom as compared to 77% of
American adolescents, 64% of the Indian adolescents had/desired bumper stickers or
other signs that explained their ideas/feelings/attitudes as compared to 41% of the
American adolescents, and 79% of Indian adolescents had/desired chess set or other
board games as compared to 25% of the American adolescents. Seventy-eight percent of the Indian adolescents had/desired a globe or maps as compared to 12% of American adolescents, 71% of the Indian adolescents had/desired items that reflected their ethnic and/or cultural identity as compared to 43% of the American adolescents, and 87% of the Indian adolescents had/desired magazines that they liked to read as compared to 59% of the American adolescents. Eighty-four percent of the Indian adolescents had/desired pictures of their brother(s) and/or sister(s) as compared to 58% of the American adolescents, 92% of the Indian adolescents had/desired pictures of their mother as compared to 50% of the American adolescents, and 92% of the Indian adolescents had/desired pictures of their father as compared to 47% of the American adolescents (see Table 5). Indian adolescents were also more likely to have/desire other things, for e.g., 81% of Indian adolescents had/desired pictures of themselves that showed “who they were” as compared to 63% of the American adolescents, 33% of the Indian adolescents had/desired posters of female movie stars or models as compared to 13% of the American adolescents, and 38% of the Indian adolescents had/desired posters of male movie stars or models as compared to 17% of the American adolescents.

Gender and Niche-Building Behavior

In order to examine the relationship between gender (male and female) and adolescent niche-building behavior, one-way ANOVAs were used with gender as the independent variable and furniture, electronics, and decorative items as the niche-building behaviors. These analyses helped identify items that provided statistically
Table 5

Culture and Niche-Building Behavior

<table>
<thead>
<tr>
<th>Items</th>
<th>Indian ( (N = 196) )</th>
<th>American ( (N = 234) )</th>
<th>Difference in % of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table and chairs</td>
<td>78</td>
<td>5</td>
<td>73</td>
</tr>
<tr>
<td>Houseplants</td>
<td>78</td>
<td>11</td>
<td>67</td>
</tr>
<tr>
<td>Globe or maps</td>
<td>78</td>
<td>12</td>
<td>66</td>
</tr>
<tr>
<td>Computer &amp; printer</td>
<td>81</td>
<td>18</td>
<td>63</td>
</tr>
<tr>
<td>Wall clock</td>
<td>97</td>
<td>38</td>
<td>59</td>
</tr>
<tr>
<td>Chess set or other board games (non-electronic)</td>
<td>79</td>
<td>25</td>
<td>54</td>
</tr>
<tr>
<td>Poster/pictures of nature or science</td>
<td>76</td>
<td>22</td>
<td>54</td>
</tr>
<tr>
<td>Bookcase</td>
<td>92</td>
<td>44</td>
<td>48</td>
</tr>
<tr>
<td>Computer desk and chair</td>
<td>80</td>
<td>32</td>
<td>48</td>
</tr>
<tr>
<td>Candles and candleholders</td>
<td>76</td>
<td>30</td>
<td>46</td>
</tr>
<tr>
<td>Pictures of your father</td>
<td>92</td>
<td>47</td>
<td>45</td>
</tr>
<tr>
<td>Hanging decorative items (strings of beads, mobiles, etc)</td>
<td>72</td>
<td>27</td>
<td>45</td>
</tr>
<tr>
<td>Aquarium and/or other pet(s)</td>
<td>62</td>
<td>18</td>
<td>44</td>
</tr>
<tr>
<td>Pictures of your mother</td>
<td>92</td>
<td>50</td>
<td>42</td>
</tr>
<tr>
<td>Pictures of your grandparents</td>
<td>81</td>
<td>39</td>
<td>42</td>
</tr>
<tr>
<td>Sofa (couch) and chair set</td>
<td>59</td>
<td>18</td>
<td>41</td>
</tr>
<tr>
<td>Air-filled chair</td>
<td>48</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>45</td>
<td>6</td>
<td>39</td>
</tr>
<tr>
<td>Pictures of famous people in history</td>
<td>56</td>
<td>20</td>
<td>36</td>
</tr>
<tr>
<td>Make-up table with mirror</td>
<td>57</td>
<td>22</td>
<td>35</td>
</tr>
<tr>
<td>Posters of places where you’d like to go</td>
<td>58</td>
<td>27</td>
<td>31</td>
</tr>
<tr>
<td>Study desk and chair</td>
<td>93</td>
<td>63</td>
<td>30</td>
</tr>
<tr>
<td>Canopy bed</td>
<td>42</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>Magazines that you like to read</td>
<td>87</td>
<td>59</td>
<td>28</td>
</tr>
<tr>
<td>Sewing machine</td>
<td>31</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>Bedroom set</td>
<td>80</td>
<td>53</td>
<td>27</td>
</tr>
<tr>
<td>Items that reflect your ethnic and/or cultural identity</td>
<td>70</td>
<td>43</td>
<td>27</td>
</tr>
<tr>
<td>Ceiling decorations</td>
<td>61</td>
<td>34</td>
<td>27</td>
</tr>
<tr>
<td>Paintings, drawings, sculptures made by other people</td>
<td>75</td>
<td>49</td>
<td>26</td>
</tr>
<tr>
<td>Pictures of your brother(s) and/or sister(s)</td>
<td>84</td>
<td>58</td>
<td>26</td>
</tr>
</tbody>
</table>

(table continues)
<table>
<thead>
<tr>
<th>Items</th>
<th>Indian (N = 196) %</th>
<th>American (N = 234) %</th>
<th>Difference in % of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camera and photography supplies</td>
<td>69</td>
<td>44</td>
<td>25</td>
</tr>
<tr>
<td>Toys</td>
<td>64</td>
<td>39</td>
<td>25</td>
</tr>
<tr>
<td>Posters of female musicians</td>
<td>36</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td>Animal trophies (from hunting/fishing)</td>
<td>32</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>Posters of male movie stars of models</td>
<td>38</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>Internet access</td>
<td>35</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>Bumper stickers or other signs that explain your ideas/feelings/attitudes</td>
<td>62</td>
<td>41</td>
<td>21</td>
</tr>
<tr>
<td>Mattress for a bed</td>
<td>71</td>
<td>92</td>
<td>21</td>
</tr>
<tr>
<td>Telephone</td>
<td>78</td>
<td>57</td>
<td>21</td>
</tr>
<tr>
<td>Posters of female movie stars or models</td>
<td>33</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>Dolls (baby, Barbie, porcelain, etc.)</td>
<td>49</td>
<td>29</td>
<td>20</td>
</tr>
<tr>
<td>Electronic games</td>
<td>63</td>
<td>43</td>
<td>20</td>
</tr>
<tr>
<td>Posters of male musicians</td>
<td>32</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>License plates</td>
<td>28</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>Pictures of yourself that show who you are</td>
<td>81</td>
<td>63</td>
<td>18</td>
</tr>
<tr>
<td>Things for building or that you have built</td>
<td>64</td>
<td>48</td>
<td>16</td>
</tr>
<tr>
<td>Microwave oven or toaster oven</td>
<td>17</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Books that you like to read</td>
<td>91</td>
<td>77</td>
<td>14</td>
</tr>
<tr>
<td>Calendars and/or schedules</td>
<td>90</td>
<td>79</td>
<td>11</td>
</tr>
<tr>
<td>Table lamp and/or ceiling light(s)</td>
<td>88</td>
<td>97</td>
<td>9</td>
</tr>
<tr>
<td>CD player</td>
<td>50</td>
<td>96</td>
<td>-46*</td>
</tr>
<tr>
<td>Stuffed animals (cloth)</td>
<td>31</td>
<td>67</td>
<td>-36</td>
</tr>
<tr>
<td>Souvenirs from places where you have traveled or have been on vacation</td>
<td>43</td>
<td>78</td>
<td>-35</td>
</tr>
<tr>
<td>Stereo</td>
<td>56</td>
<td>85</td>
<td>-29</td>
</tr>
</tbody>
</table>

*Note. Only items with p = .01 are reported.
* The negative sign indicates that a higher percentage of American adolescents had/desired these items as compared to Indian adolescents.

Significant differences between the two genders for their niche-building behavior.

Further, percentages for these items were calculated for each gender in order to provide a
better understanding of the types of items that belonged to either males or females. As shown in Table 6, overall, females had/desired more items in their bedrooms as compared to males. Differences in the percentage of the items were obtained to show how much the two genders differed in their actual or desired material possessions. A negative sign indicates that males were more likely to have/desire these items than females (see Table 6). The analysis revealed that the following three furniture items distinguished the genders: make-up table and mirrors, mattress for bed, and sofa (couch) and chair set. For the electronic items, DVD players, electronic games, and refrigerators significantly distinguished the genders. Fifty-six percent of females had/desired a make-up table and mirrors in their rooms as compared to only 24% of males. A higher percentage of females had/desired a mattress for bed whereas a higher percentage of males had/desired a sofa (couch) and chair set in their rooms. Sixty-eight percent of the males had/desired electronic games in their bedrooms as compared to only 34% of the females. Also, a higher percentage of males had/desired DVD players and refrigerators in their bedrooms as compared to females.

Gender differences were also evident in the types of decorative items that the adolescents had/desired in their bedrooms. As shown in Table 6, more males than females had/desired animal trophies, a chess set or other board games, globe or maps, pictures of famous people in history, and pictures of male athletes in their bedrooms. A higher percentage of males also had/desired athletic/sporting equipment (74%) as compared to females (58%). In contrast, females were more likely to have/desire a bulletin board or dry erase board, camera and photography supplies, candle/candleholder, dolls, pictures of places where they had been, and pictures of them that showed “who
they were.” Females were also significantly different than males on beauty products and relational items. Seventy percent of the females had/desired full-length mirrors compared to only 36% of the males, 84% of the females had/desired jewelry (earrings, necklaces, etc.) as compared to 18% of the males, and 66% of the females had/desired make-up and/or hair accessories as compared to 19% of the males. Eighty-three percent of the females had/desired pictures of their brother(s) and/or sister(s) in their bedrooms as compared to 55% of the males, 84% of the females had/desired pictures of their mother as compared to 58% of the males, and 83% of the females had/desired pictures of their fathers as compared to 56% of the males. Females were also more likely to have/desire pictures of grandparents, cousins, friends, and pet(s).

Table 6

*Gender and Niche-Building Behavior*

<table>
<thead>
<tr>
<th>Items</th>
<th>Females (N=204) (%)</th>
<th>Males (N=223) %</th>
<th>Difference in % of the items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jewelry (earrings, necklaces, etc.)</td>
<td>84</td>
<td>18</td>
<td>66</td>
</tr>
<tr>
<td>Dolls</td>
<td>63</td>
<td>14</td>
<td>49</td>
</tr>
<tr>
<td>Make-up and/or hair accessories</td>
<td>66</td>
<td>19</td>
<td>47</td>
</tr>
<tr>
<td>Pictures of friends</td>
<td>89</td>
<td>44</td>
<td>45</td>
</tr>
<tr>
<td>Pictures of cousin(s)</td>
<td>68</td>
<td>30</td>
<td>38</td>
</tr>
<tr>
<td>Full-length mirrors</td>
<td>70</td>
<td>36</td>
<td>34</td>
</tr>
<tr>
<td>Make-up table and mirrors</td>
<td>56</td>
<td>24</td>
<td>32</td>
</tr>
<tr>
<td>Camera and photography supplies</td>
<td>69</td>
<td>39</td>
<td>30</td>
</tr>
<tr>
<td>Candles and candle holders</td>
<td>62</td>
<td>33</td>
<td>29</td>
</tr>
</tbody>
</table>

(table continues)
<table>
<thead>
<tr>
<th>Items</th>
<th>Females ((N=204)) (%)</th>
<th>Males ((N=223)) %</th>
<th>Difference in % of the items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pictures of brother(s) and/or sister(s)</td>
<td>83</td>
<td>55</td>
<td>28</td>
</tr>
<tr>
<td>Pictures of father</td>
<td>83</td>
<td>56</td>
<td>27</td>
</tr>
<tr>
<td>Pictures of grandparent(s)</td>
<td>73</td>
<td>47</td>
<td>26</td>
</tr>
<tr>
<td>Pictures of mother</td>
<td>84</td>
<td>58</td>
<td>26</td>
</tr>
<tr>
<td>Bulletin board or dry erase board</td>
<td>63</td>
<td>38</td>
<td>25</td>
</tr>
<tr>
<td>Pictures of yourself that show who you are</td>
<td>81</td>
<td>60</td>
<td>21</td>
</tr>
<tr>
<td>Pictures of places where you have been</td>
<td>68</td>
<td>47</td>
<td>21</td>
</tr>
<tr>
<td>Pictures of pet(s)</td>
<td>42</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>Mattress for bed</td>
<td>90</td>
<td>79</td>
<td>11</td>
</tr>
<tr>
<td>Electronic games</td>
<td>34</td>
<td>68</td>
<td>-34&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Chess set or other board games (non-electronic)</td>
<td>34</td>
<td>58</td>
<td>-24</td>
</tr>
<tr>
<td>DVD player</td>
<td>21</td>
<td>45</td>
<td>-24</td>
</tr>
<tr>
<td>Pictures of male athletes</td>
<td>14</td>
<td>37</td>
<td>-23</td>
</tr>
<tr>
<td>Sofa (couch) and chair set</td>
<td>29</td>
<td>49</td>
<td>-20</td>
</tr>
<tr>
<td>Globe or maps</td>
<td>30</td>
<td>49</td>
<td>-19</td>
</tr>
<tr>
<td>Pictures of famous people in history</td>
<td>25</td>
<td>43</td>
<td>-18</td>
</tr>
<tr>
<td>Athletic or sporting equipment</td>
<td>58</td>
<td>74</td>
<td>-16</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>20</td>
<td>30</td>
<td>-10</td>
</tr>
<tr>
<td>Animal trophies</td>
<td>11</td>
<td>26</td>
<td>-15</td>
</tr>
</tbody>
</table>

*Note. Only items with \(p = .01\) are reported*  
<sup>a</sup> A negative sign indicates that a higher percentage of males had these items as compared to females.

Identity Style and Niche-Building Behavior

The third series of analyses was performed to find out whether identity styles were related to the adolescents' niche-building behavior. Table 7 summarizes the different items that provided meaningful differentiation among adolescents' identity
styles in terms of their niche-building behavior. In general, results showed that the diffused/avoidant adolescents had/desired the most items in their bedrooms, followed by the achieved/moratorium adolescents, and the normative adolescents, who had/desired the least number of items. Table 7 has been organized so that the first 12 items were most likely to be possessed/desired by the diffused/avoidant adolescents, the following 4 items are most likely to be possessed/desired by the achieved/moratorium adolescents, and the last 5 items are most likely to be possessed/desired by the normative adolescents.

The highest percentage of the diffused/avoidant adolescents had/desired an air-filled chair, followed by the achieved/moratorium, and the normative adolescents. Achieved/moratorium adolescents were most likely to have/desire a sofa (couch) and chair set, followed closely by the diffused/avoidant adolescents, whereas the normative adolescents were least likely to have/desire this item in their bedrooms (see Table 7). Fifty-three percent of the diffused/avoidant adolescents had/desired a table and chairs in their bedrooms followed by 31% of the achieved/moratorium, and 10% of the normative adolescents. For computer/printers, 54% of the achieved/moratorium, 52% of the diffused/avoidant, and 16% of the normative adolescents had/desired them in their bedrooms. Similar trends were found for internet access, where 33% of the achieved/moratorium, 24% of the diffused/avoidant, and 8% of the normative adolescents had/desired it in their bedroom. For television, the highest percentage was found for the diffused/avoidant adolescents (78%), followed by the normative (62%), and the achieved/moratorium adolescents (52%). For refrigerator and sewing machines, more diffused/avoidant adolescents had/desired them in their bedrooms, followed by the achieved/moratorium, and the normative adolescents.
Identity differences were also found for the decorative items that the adolescents had/desired in their bedrooms (see Table 7). More diffused/avoidant adolescents had/desired hanging decorative items, poster/pictures of nature or science, license plates, and a wall clock, followed by achieved/moratorium, and diffused/avoidant adolescents who were least likely to have/desire these items in their bedrooms. Sixty-three percent of the diffused/avoidant adolescents had/desired bumper stickers or signs that explained their ideas/feelings/attitudes, followed by 40% of the achieved/moratorium, and 37% of the normative adolescents. Similar trends were found for chess set or other board games, where 58% of the diffused/avoidant adolescents had/desired them as compared to 46% of the achieved/moratorium, and 27% of the normative adolescents. Forty-five percent of the achieved/moratorium adolescents had/desired globe or maps in their bedrooms, followed by 46% of the diffused/avoidant, and 21% of the normative adolescents. The highest percentage of the normative adolescents had/desired religious pictures, and/or other religious items (89%), followed by the achieved/moratorium (72%), and the diffused/avoidant (65%) adolescents. For candles and candleholder, the achieved/moratorium adolescents were most likely to have/desire them in their bedrooms, followed by the diffused/avoidant and the normative adolescents.

The next step in the analysis was to identify how two independent variables, when considered together, related to adolescent’s niche-building behavior. For this purpose the following combinations for the independent and dependent variables were examined: a) culture, gender, and niche-building behavior, b) culture, identity, and niche-building behavior, and c) identity, gender, and niche-building behavior. For the niche-building
behavior, only items that yielded significant one-way ANOVA outcomes were considered for further analysis. Only the analyses that produced significant interactions between the independent variables for the niche-building items are discussed here.

Table 7

*Identity Style and Niche-Building Behavior*

<table>
<thead>
<tr>
<th>Items</th>
<th>Achieved/ moratorium (N = 96) (%)</th>
<th>Normative (N = 112) (%)</th>
<th>Diffused/ avoidant (N = 141) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television</td>
<td>52</td>
<td>62</td>
<td>78</td>
</tr>
<tr>
<td>Wall clock</td>
<td>72</td>
<td>44</td>
<td>78</td>
</tr>
<tr>
<td>Bumper stickers or other signs that explain your ideas/feelings/attitudes</td>
<td>40</td>
<td>37</td>
<td>63</td>
</tr>
<tr>
<td>Chess set or other board games (non-electronic)</td>
<td>46</td>
<td>27</td>
<td>58</td>
</tr>
<tr>
<td>Table and chairs</td>
<td>31</td>
<td>10</td>
<td>53</td>
</tr>
<tr>
<td>Hanging decorative items (strings of beads, streamers, mobiles, etc)</td>
<td>45</td>
<td>25</td>
<td>53</td>
</tr>
<tr>
<td>Poster/pictures of nature or science</td>
<td>44</td>
<td>23</td>
<td>52</td>
</tr>
<tr>
<td>Globe or maps</td>
<td>45</td>
<td>21</td>
<td>46</td>
</tr>
<tr>
<td>Air-filled chair</td>
<td>24</td>
<td>10</td>
<td>35</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>20</td>
<td>10</td>
<td>34</td>
</tr>
<tr>
<td>License plates</td>
<td>18</td>
<td>9</td>
<td>25</td>
</tr>
<tr>
<td>Sewing machine</td>
<td>13</td>
<td>3</td>
<td>21</td>
</tr>
</tbody>
</table>

Higher percentage of achieved/moratorium adolescents had the following items

Computer/printer | 54 | 16 | 52  

(table continues)
### Table 8

<table>
<thead>
<tr>
<th>Items</th>
<th>Achieved/</th>
<th>Normative</th>
<th>Diffused/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>moratorium</td>
<td>(N = 112)</td>
<td>avoidant</td>
</tr>
<tr>
<td></td>
<td>(N = 96)</td>
<td>(%)</td>
<td>(N = 141)</td>
</tr>
<tr>
<td>Candles and candleholders</td>
<td>51</td>
<td>29</td>
<td>49</td>
</tr>
<tr>
<td>Sofa (couch) &amp; chair set</td>
<td>49</td>
<td>22</td>
<td>45</td>
</tr>
<tr>
<td>Internet</td>
<td>33</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>Table lamp and/or ceiling light(s)</td>
<td>92</td>
<td>100</td>
<td>89</td>
</tr>
<tr>
<td>CD player</td>
<td>66</td>
<td>89</td>
<td>76</td>
</tr>
</tbody>
</table>

Higher percentage of normative adolescents had the following items:

- Religious pictures and/or other religious items: 72, 89, 65
- Souvenirs from places where you have traveled or have been on vacation: 60, 82, 57
- Stuffed animal: 49, 68, 46

*Note. Only items with \( p = .01 \) are reported.*

### Culture, Gender, and Niche-Building Behavior

In order to examine the influence of culture and gender on adolescent niche-building behavior, an analysis was done with culture (American and Indian) and gender (males and females) as the independent variables, and various niche-building items as the dependent variable. Only those niche-building items that had yielded significant ANOVA outcomes for culture and gender were included in the present analysis \( N = 82 \). Table 8 shows the items that resulted in significant interaction effects for culture and gender. The table was arranged so that a higher percentage of Indian females had/wanted the first nine...
items, followed by the next seven items, which were most likely to be possessed/desired by the American females. The next two items were most likely to be possessed/desired by the Indian males, and finally, the last item was most likely to be possessed/desired by the American males.

Overall, more Indian females had/desired items in their bedrooms followed by the Indian males, the American females, and the American males (see Table 8). The highest percentage of Indian females had/desired pictures of their mothers, fathers, grandparents, brother(s) and or sister(s), followed by the Indian males, the American females, and the American males. Eighty-four percent of the Indian females had/desired pictures that showed “who they were,” followed by 79% of the American females, 78% of the Indian males, and 42% of the American males. The analysis showed that 86% of the American males had/desired stereos in their bedrooms, followed by 84% of the American females, 68% of the Indian male, and 37% of the Indian females. Almost equal percentages of Indian females and males had/desired calendars and/or schedule, followed by American females and males. For camera and photography supplies, more Indian girls had/desired them, followed by Indian males and American females, who had equal percentages, and lastly, the American males. Indian girls also had/desired more candles and candleholders followed by Indian males, American females, and American males.

Culture, Identity Style, and Niche-Building Behavior

In order to understand the relationship among culture, identity, and adolescent’s niche-building behavior, an analysis was done with identity style (achieved/moratorium, normative, and diffused/avoidant) and culture (American and Indian) as the independent
Table 8

*Culture, Gender, and Niche-Building Behavior*

<table>
<thead>
<tr>
<th>Items</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>American ((N = 105))</td>
<td>Indian ((N = 129))</td>
</tr>
<tr>
<td>Higher percentage of Indian females had the following items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pictures of your mother</td>
<td>21%</td>
<td>89%</td>
</tr>
<tr>
<td>Pictures of your father</td>
<td>18%</td>
<td>88%</td>
</tr>
<tr>
<td>Calendars and/or schedulers</td>
<td>66%</td>
<td>90%</td>
</tr>
<tr>
<td>Pictures of your grandparents</td>
<td>11%</td>
<td>79%</td>
</tr>
<tr>
<td>Pictures of your brother(s) and/or sister(s)</td>
<td>26%</td>
<td>84%</td>
</tr>
<tr>
<td>Pictures of yourself that show who you are</td>
<td>42%</td>
<td>78%</td>
</tr>
<tr>
<td>Candles and candleholders</td>
<td>6%</td>
<td>72%</td>
</tr>
<tr>
<td>Toys</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>Camera and photography supplies</td>
<td>19%</td>
<td>65%</td>
</tr>
<tr>
<td>Higher percentage of American females had the following items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jewelry (earrings, necklaces etc.)</td>
<td>9%</td>
<td>30%</td>
</tr>
<tr>
<td>Pictures of your friends</td>
<td>28%</td>
<td>63%</td>
</tr>
<tr>
<td>Stuffed animals (cloth)</td>
<td>46%</td>
<td>30%</td>
</tr>
<tr>
<td>Full-length mirror</td>
<td>24%</td>
<td>51%</td>
</tr>
<tr>
<td>Make-up and/or hair accessories</td>
<td>2%</td>
<td>41%</td>
</tr>
<tr>
<td>Bulletin board or dry erase board</td>
<td>35%</td>
<td>42%</td>
</tr>
<tr>
<td>Pictures of your cousin(s)</td>
<td>10%</td>
<td>52%</td>
</tr>
<tr>
<td>Higher percentage of Indian males had the following items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jewelry (earrings, necklaces, etc.)</td>
<td>9%</td>
<td>30%</td>
</tr>
<tr>
<td>Pictures of your friends</td>
<td>28%</td>
<td>63%</td>
</tr>
<tr>
<td>Stuffed animals (cloth)</td>
<td>46%</td>
<td>30%</td>
</tr>
<tr>
<td>Full-length mirror</td>
<td>24%</td>
<td>51%</td>
</tr>
</tbody>
</table>

(***table continues***
<table>
<thead>
<tr>
<th>Items</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>American (N = 105) %</td>
<td>Indian (N = 129) %</td>
</tr>
<tr>
<td>Make-up and/or hair accessories</td>
<td>2</td>
<td>41</td>
</tr>
<tr>
<td>Bulletin board or dry erase board</td>
<td>35</td>
<td>42</td>
</tr>
<tr>
<td>Pictures of your cousin(s)</td>
<td>10</td>
<td>52</td>
</tr>
</tbody>
</table>

Higher percentage of Indian males had the following items

- Telephone: 42 80 74 75
- Posters of male movie stars/models: 4 40 28 33

Higher percentage of American males had the following items

- Stereo: 86 68 84 37

*Note. Only items with p = .01 are reported.*

variables, and the various niche-building items as the dependent variable. For the purpose of this analysis, niche-building behavior was restricted to the 75 items that had yielded significant outcomes for one-way ANOVA for either identity or culture. After completing all of the analyses, only the items that showed significant interaction effects between identity style and culture were considered. As can be seen from Table 9, of all the possible interaction effects that were examined, only two yielded significant interactions for identity style and culture: “Pictures of brother(s) and/or sister(s),” and “Posters of places where you’d like to go.” For both of these items, the highest percentages were found for the diffused/avoidant Indian adolescents, whereas the smallest percentages
Table 9

*Culture, Identity Style, and Niche-Building Behavior*

<table>
<thead>
<tr>
<th>Items</th>
<th>Achieved/moratorium</th>
<th>Normative</th>
<th>Diffused/avoidant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pictures of brother(s) and/or sister(s)</td>
<td>American (N = 48) %</td>
<td>Indian (N = 48) %</td>
<td>American (N = 98) %</td>
</tr>
<tr>
<td>Posters of places where you’d like to go</td>
<td>57</td>
<td>72</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>38</td>
<td>27</td>
</tr>
</tbody>
</table>

*Note.* Only items with $p = .01$ are reported.

were found for the diffused/avoidant American adolescents. Ninety-four percent of the diffused/avoidant Indian adolescents had/desired “Pictures of brother(s) and/or sister(s)” in their bedrooms, followed by 75% of the normative, and 72% of the achieved/moratorium Indian adolescents. For the American adolescents, the highest percentage was obtained for the normative adolescents (63%), followed by the achieved/moratorium (57%), and the diffused/avoidant (37%) adolescents. For the item “Posters of places where you’d like to go,” the diffused/avoidant Indian adolescents were most likely to have/desire these in their bedrooms, followed by the normative Indian adolescents, achieved/moratorium Indian adolescents, achieved/moratorium American
adolescents, normative American adolescents, and diffused/avoidant American adolescents.

Identity Style, Gender, and Niche-Building Behavior

In order to examine the relationship between identity style, gender, and adolescent’s niche-building behavior, an analysis was done with identity style (achieve/moratorium, normative, diffused/avoidant) and gender (male and female) as the independent variables, and the niche-building items as the dependent variable. Here, niche-building behavior was restricted to those items that yielded significant ANOVA outcomes for both culture and gender ($N = 49$). As can be seen from Table 10, only one item, “Dolls” yielded significant outcomes for differentiation between the genders in the two cultures. Sixty-seven percent of the normative females had/desired dolls in their bedrooms, followed by 65% of the diffused/avoidant females, 44% of the achieved/moratorium females, 18% of achieved/moratorium males, 11% of the diffused/avoidant males, and lastly 2% of the normative males. Table 10 displays the percentages of bedrooms with dolls for each identity style and gender.

Culture, Gender, Identity Style, and Niche-Building Behavior

All the niche-building items ($N = 22$) that resulted in a significant two-way interactions for identity and culture, identity and gender, as well as culture and gender were included for the three-way interaction. However, none of three-way interactions were statistically significant for identity style, gender, culture and niche-building behavior.
### Table 10

**Identity Style, Gender, and Niche-Building Behavior**

<table>
<thead>
<tr>
<th>Items</th>
<th>Achievement/Moratorium</th>
<th>Normative</th>
<th>Diffused/Avoidant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males ($N = 51$)</td>
<td>Females ($N = 41$)</td>
<td>Males ($N = 50$)</td>
</tr>
<tr>
<td>Dolls (baby, porcelain, etc.)</td>
<td>18%</td>
<td>44%</td>
<td>2%</td>
</tr>
</tbody>
</table>

*Note.* Only items with $p = .01$ are reported.

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**Summary of the Results**

It is evident from the present findings that there is an association between culture, gender, identity style, and adolescents’ niche-building behavior. Adolescents’ culture was related to the niche-building behavior, where Indian adolescents had/desired more items like computer, internet, pictures, and so forth, in their bedrooms as compared to their American counterparts. Gender differences were also evident in the kinds of items or possessions that the adolescents had/desired in their bedrooms. Females had/desired more variety of items, which included relational items and make-up accessories. In contrast to this, a higher percentage of males had/desired instrumental items like athletic equipment and electronic games. Identity styles also determined the niche-building behavior, with
diffused/avoidant adolescents having/desiring more variety of items in their bedrooms, followed by the achieved/moratorium, and the normative adolescents. A few interaction effects were found for culture, gender, identity style, and niche-building behaviors of the adolescents. The interaction between identity and culture was evident for two items whereas that between identity style and gender yielded one item, which significantly differentiated the adolescents. The interactions between culture and gender identified various items that distinguished the males and the females in the two cultures. Overall, Indian females and Indian males had/desired a greater variety of items in their bedrooms as compared to American females and American males.
CHAPTER V
DISCUSSION

Summary of the Findings

The present study explored relations among culture, gender, identity style, and adolescents’ niche-building behavior. The study was conceived on the belief that adolescents belonging to different identity styles (achieved/moratorium, normative and diffused/avoidant), genders (males and females), and cultures (American and Indian) would exhibit different niche-building behaviors. The findings of the study supported this assumption, where adolescents with different identity styles differed in their niche-building behavior. Diffused/avoidant adolescents had/desired a greater variety of items in their bedrooms followed by the achieved/moratorium adolescents and the normative adolescents. Gender was also related to adolescent niche-building behavior. Females had/desired more and different items in their bedroom when compared to males. Finally, adolescents in the Indian culture had/desired a greater variety of items in their bedrooms and created a different niche for themselves as compared to American adolescents.

Additionally, the interaction effects for identity, culture, and gender were examined to see how these variables combined to affect adolescent niche-building behavior. Two items, “pictures of bother(s) and/or sister(s)” and “posters of places where you’d like to go” yielded interaction effects for culture and identity style on adolescent niche-building behavior. A higher percentage of diffused/avoidant Indian adolescents had/desired these items whereas the lowest percentage of diffused/avoidant American adolescents had/desired them. Only one item, “dolls,” yielded a significant outcome for
interaction between identity and gender. Culture and gender did have an impact on the niche-building behavior of the adolescents. A higher percentage of Indian females had/desired items that reflected interpersonal relationships, and items that showed “who they were,” as compared to the American females who exhibited higher preferences for make-up accessories. Additionally, a higher percentage of Indian males had/desired posters of male movie stars in their rooms when compared to their American counterparts. The discussion below provides an explanation and interpretation for the findings of the study.

**Culture and Identity Style**

Culture was significantly related to adolescents’ identity styles. More Indian adolescents had either achieved/moratorium or diffused/avoidant identity styles, as compared to this sample of American adolescents, who were more likely to have a normative identity style. This finding contradicts previous research, which has shown that because of its emphasis on individualism, autonomy, and independence, more adolescents in the American culture should have achieved/moratorium or diffused/avoidant identity style (Lewis, 2003). Adolescents in the Indian culture were expected to be normative because of the cultural emphasis on interdependence and collectivism. Many possibilities can account for this finding. Jensen (2003) explored the implication of globalization on adolescents and concluded that adolescents are increasingly forming multicultural identities based on diverse information. A multicultural identity entails a worldview that encompasses broader values, beliefs, and behaviors that unite people belonging to different communities. Explaining the concept of
cultural identity in Jensen’s words:

Forming a cultural identity involves making choices about the cultural contexts that one identifies with. Put another way, the Eriksonian identity formation takes center on deciding what distinguishes you as an individual among the members of your cultural community, whereas forming a cultural identity involves deciding on the cultural communities to which you will belong—a task that has become more complex as more and more people have exposure to multiple cultural communities with their diverse and divergent custom complexes. In fact, forming a cultural identity becomes mainly a conscious process and decision when you have exposure to more than one culture. (p. 190)

With increased mobility, worldwide media disseminations, and interactions, developing an adolescents’ cultural identity has become increasingly complex. This is more so the case for traditional cultures where adolescents have to incorporate conflicting views into their value systems. To overcome such conflicts, Arnett (2002) proposed that these adolescents develop a “local identity” which reflects their traditional viewpoint and a “global identity” which is an outcome of their newly learned value paradigms.

However, formation of the multicultural identity has its own benefits and consequences. The value conflicts that these adolescents face challenges their psychological adjustment (Berry, 1997). Adolescents have difficulty forming a coherent identity that would allow them to cope with the contradictory messages they receive.

Another explanation for such contrary findings comes from Shweder et al. (1998), who stated that a rigid conceptualization of collectivism and individualism as opposites on a continuum has its limitations. Individualism and collectivism
describe the beliefs of the cultures as a whole, forgetting about the individual differences. Thus, possibilities of finding collectivistic individuals in individualistic cultures and individualistic individuals in collectivistic cultures exist. He argued that most individuals have a blend of individualistic and collectivistic values making it difficult to categorize them as having a fixed set of values. Further support for Shewder’s perspective comes from Sinha, Sinha, and Verma’s (2001) work, which documented that both collectivistic and individualistic orientations coexist in the Indian value system and depending on the situation, a response may be generated that can be either collectivistic, individualistic, or a mixture of both. In fact, researchers have found evidence for the individualistic orientation in Indian philosophy. Paranjpe (1998) mentioned that the cultural tradition of India holds the individual as the focus for moral responsibility, even when the individual’s affiliations and duties are toward his or her group. Thus, irrespective of their group affiliations, individuals are held accountable for their duties and responsibilities.

A third explanation for such discrepancy comes from researchers who have questioned the application of Erikson’s concept of adolescence in an Indian context. While many researchers refuse to accept the existence of adolescence as a stage in Indian culture, others believe that adolescence exists, but in a way that differs from the way that Erikson proposed it to be. Saraswathi (1999) has argued that rather than being universal, adolescence is culturally constructed concept that is applicable only to the western culture. He stated that the concept of adolescence is applicable to industrial societies that have a marked discontinuity between childhood and adulthood. In a culture like India, where the continuity between childhood and adulthood is greater, the chances of absence
of a distinct stage called adolescence is greater too. Chatterjee, Bailey, and Aronoff (2001) disputed Erikson's stage of adolescent development suggesting that it is an ethnocentric concept, which is representative of the western culture. According to these researchers, though Erikson was aware of social and cultural variations, his theory claimed universality and completely ignored the cultural variations. Again, these researchers favor Saraswathi's perspective by stating that the concept of adolescence is an outcome of technological complexity of a given culture. The greater the technological complexity of a culture, the more are the skills required to succeed in that particular culture, prolonging the transition from childhood to adulthood, and creating the stage of adolescence.

Ramanujam (1979) created a compromise between the researchers who completely denied the existence of adolescence in India, and Erikson who considered adolescence as a universal phenomenon. He proposed the concept of extended adolescence as being applicable to the Indian culture. He acknowledged that the psychological problems that Indians experienced during adulthood were a spill-over from teenage years. Many of the acting out behaviors that are seen in adulthood are characteristic of adolescent behavior. Since the culture did not accept adolescence as a life stage, no provisions were made to resolve conflicts at this stage, which resulted in the expression of this conflict during adulthood. Advocating extended identity as being suitable to Indians, he further mentioned that in a culture like India, where individuality is not valued, but conformity to a group is encouraged to maintain group identity, the process of identity formation should be perceived from a different perspective.

Yet another explanation was given by Yu and Yang (1994) who debated that the
term achievement by itself has different connotations in different cultures. What is considered to be an achievement in the western cultures might be totally different from what it means in the eastern cultures. In contrast to the western culture, where the emphasis on achievement is for self-improvement, eastern cultures emphasize personal achievements so that the individual can contribute towards the development of the society. Achievement in western culture emphasizes personal success, with outcomes that are beneficial to the individual. Determining what is considered to be successful in these cultures is solely an independent choice of the individual. For individuals in the eastern culture the acquisition of personal skills, like educational or technological skills, are promoted so that the overall society can benefit (Yu & Yang). The source of achievement for people in these cultures lies in the interdependent socialization practices, with an emphasis on self-control, learning educational or technological skills, and fulfilling social obligations. These cultures emphasize the welfare of one’s community, stressing the importance of education and achievement, willingness to sacrifice, and responsibility towards one’s duties, all of which account for achievement of the individuals in these cultures (Yu & Yang).

If one accepts this latter explanation, it is not surprising then, that Indian adolescents showed identity styles that contradict expected outcomes. A broader definition of adolescence, identity, and achievement, that captures the cultural underpinnings when applying these concepts to different contexts helps to understand the present findings in a general way.
Though a trend was observed for this analysis, with more females being normative and more males being achieved/moratorium or diffused/avoidant, the findings were non-significant, suggesting that being a male or a female did not influence the adolescent’s identity style. Examination of identity development as influenced by gender has received significant attention. Archer (1982) addressed the issue of gender differences in adolescent identity development. She found no significant differences in identity status by gender. Based on these findings, Archer concluded that females and males do not differ in their identity styles. Further support for this finding comes from Streitmatter (1993) who compared the identity development of the two genders and found similar patterns of identity development for both males and females. Even though the findings of the present study showed that gender does not influence identity development, the trend here might be suggestive of what Gilligan (1979) considered to be an outcome of differences in emphasis for male and female identity formation. She argued that male identity is centered on autonomous development whereas a female identity is centered on interpersonal relationships. Discrepancies in the previous research and present study about whether or not gender influences identity development commands further analysis of the issue using a sound methodology and assessment tools. It seems that researchers with opposing views are measuring two different constructs to explain the influence of gender on identity development. These contradictions show that only a partial picture has emerged as far as female identity development is concerned (Streitmatter, 1993). A more comprehensive method that
integrates both autonomy and intimacy to explain female identity development might result in greater understanding of the issue.

Culture and Niche-Building Behavior

In the present study, culture was significantly related to adolescents’ niche-building behavior. Indian adolescents had/desired a wider range of electronics, furniture, and decoration items as compared to their American counterparts. A higher percentage of Indian adolescents had/desired a computer and a printer, as well as internet access in their bedrooms, which may be reflective of their active information seeking behavior. They also seemed to be more open to different kinds of information as evident from the variety of possessions that they acquired/desired for themselves. Among other things, a higher percentage of Indian adolescents had/desired globes or maps, pictures of famous people in history, books and magazines that they liked to read, and chess sets or board games, all of which may be indicative of their desire to seek information. Also, a higher percentage of Indian adolescents had/desired pictures of female/male models or movie stars in their bedrooms, which indicates the importance of media on this group of adolescents.

Following the trend of previous studies (Arora, Verma & Agarwal, 1985; Saraswathi, 1999), which emphasize familial values in traditional cultures, the findings from the present study do show that a higher percentage of Indian adolescents had/desired pictures of their grandparents, mothers, fathers, and siblings; perhaps indicating a greater orientation towards the family in this culture. However, contrary to the previous findings (Gosling et al., 2005), the results of this study showed that a higher percentage of Indian adolescents had/desired pictures that showed “who they are” when
compared to American adolescents. This outcome contradicts Gosling and colleagues’ (2005) findings, who studied young college students, and found that Whites were more likely to have photographs of themselves in their personal living space when compared to Asians. Again, this finding might be an outcome of the individualistic values that these adolescents have even in the collectivistic, Indian culture. The growing emphasis on individuality might also be the reason as to why Indian adolescents were also more likely to have/desire the item-“Bumper stickers or other signs that explain your ideas/feelings/attitudes” as it gave them the chance to demonstrate their uniqueness.

Today, when the world is increasingly shrinking, technology has made information access an easy task. Nakamura (1964) contended that globalization has opened the channels of communication between nations, blurring boundaries and unifying their cultures. However, he maintained that this transaction happened only in a selective manner where cultures assimilated only those foreign values that led to positive development, rejecting others that were in conflict with the traditionally upheld beliefs. Patel-Amin and Power (2002) found evidence for such value assimilations among modern Indian families. They found that the families that had incorporated western or modern values did so selectively by modifying and re-evaluating their traditional beliefs. Parents in these families encouraged adolescents to emphasize traditional values like positive orientation towards others, and western values like independence and effectiveness. Modernity also predicted the kind of opportunities that were provided to adolescents in these families, which may explain computer and internet access by majority of Indian adolescents in this study.
The findings of the present study support the assumption that adolescents differ in their niche-building behavior depending on their gender. Overall, females had/desired a greater variety of things in their bedrooms as compared to males. The results showed that males were more likely to possess/desire items that reflected a traditional understanding of masculinity like, electronic items, athletic or sporting equipment, and chess set/board games, which suggest independence and autonomy. In contrast to this, females were more likely to possess/desire items that represent the traditional concept of femininity, like make-up or hair accessories, full-length mirrors, jewelry, and pictures of their family members as well as their friends. Social norms mandate that females be physically more appealing than males (Gosling et al., 2005). Females incorporate the traditional value of beauty in their self-image, which explains why they have more beauty products in their bedrooms as compared to males. Also, females are more likely to take up the role of nurturing, loving individuals, explaining their possession of items that emphasize personal relationships (Belk, 1988). However, contrary to the expected, females also had/desired more pictures of them that showed “who they are.” Such an outcome might result from the increased desire amongst females to be independent and establish themselves as unique individuals, whereas males have already accomplished this task.

Ditmarr (1989) suggested that possessions have different meanings for men and women. As possessions are extensions of the self and because men and women construe their selves differently, it is understandable that they will have different possessions. Her study showed that women had personal belongings that were representative of their
 relational sentiments or had other-oriented meaning, whereas men had possessions that had functional significance or that expressed self-oriented meaning. Also, the meaning of the possession may be strongly related to its socio-cultural relevance rather than just being a reflection of the person’s gender (Ditmarr). Individuals act in accordance with the gender role stereotypes enforced by their cultures. These stereotypes are internalized to form a part of their identity and are reflected in their possessions (Deaux, 1984). The value that an individual attaches to his/her possessions may be closely related to the shared notions about that possession and can reflect the person’s position in the culture.

Identity Style and Niche-Building Behavior

The individuals’ choice of possession is an expression of themselves. Belk (1988) stated that “A key to understanding what possessions mean is recognizing that, knowingly or unknowingly, intentionally or unintentionally, we regard our possessions as parts of ourselves” (p. 139). Possessions are an extension of the self that confirm our identities and are instrumental to our development. To this end, Sartre (1966) maintained that the only way to know who we are is by knowing what we have. Thus, possessions are important manifestations of individuals, expressing them in their totality. Explaining how possessions can reflect adolescent development, Belk suggested that one way adolescents manifest their identity is through acquiring and accumulating certain objects. This is evident from the findings of the present study, which showed differences in the possessions of the adolescents based on the differences in their identity styles.

In this study, diffused/avoidant adolescents had/desired a large variety of items in their bedrooms, whereas the normative adolescents had/desired the fewest number of
items. Achieved/moratorium adolescents were in between these two identity styles. One possible explanation for this outcome is that since diffused/avoidant adolescents have still not figured out what is relevant to them, a wider range of items in their bedrooms is an indirect manifestation of their internal state. Following similar reasoning, fewer items in the bedrooms of normative adolescents might indicate their rigid and predetermined way of thinking, which allows them to retain only those things that serve their purpose and do not evoke thought provoking ideas. Adolescents with different identity styles differed in the kinds of possessions they had/desired in their bedrooms. Interestingly, higher percentages of both the achieved/moratorium and diffused/avoidant adolescents had/desired computer, printer, and internet access as compared to the normative adolescents. One explanation for this outcome might be that both achieved/moratorium and diffused/avoidant adolescents are seeking information, but they differ in the kind of information they seek. Achieved/moratorium adolescents might be seeking out for information that contributes to their development, whereas diffused/avoidant adolescents seek information, which is interesting but does not contribute towards their development. It seems that even when adolescents have/desire the same items they might use them for different purposes and differ in the meanings they attach to their possessions. In contrast to these two groups of adolescents, normative adolescents refrain from any kind of information seeking behavior as it might generate internal conflict. Support for this assumption comes from looking at the other possessions that these adolescents had/desired in their bedrooms. Higher percentages were found for both achieved/moratorium and diffused/avoidant adolescents for items like chess sets, board games, and globes or maps, whereas normative adolescents were significantly
lower on such items. The highest percentage of normative adolescents had/desired religious pictures and/or other religious items in their bedrooms followed by achieved/moratorium, and diffused/avoidant adolescents. Since normative adolescents are most likely to defer to authority, they are also most likely to have/desire religious pictures in their bedrooms. Conversely, diffused/avoidant adolescents are least likely to adopt social norms, because of which they are not likely to possess/desire religious pictures or items (Berzonsky & Kinney, 1995).

Culture, Gender, and Niche-Building Behavior

The effect of culture and gender on the niche-building behavior of adolescents was analyzed in the present study. Overall, the results confirmed the findings from previous studies (Bryce & Olney, 1991) showing that females in both cultures were more likely to have/desire make-up accessories as well as relational items. Due to the social emphasis on physical beauty and personal relationships, females in both cultures showed preferences for these items. However, it was interesting to note that females in the American culture had/desired more make-up accessories as compared to Indian females. Females in the Indian culture had/desired more pictures of their mother, father, grandparents, and siblings as compared to American females. Because of the greater emphasis on physical appearance in the western culture (Berger, 2001) it does seem predictable that females in the American culture will have/desire more beauty products as compared to their Indian counterparts. For Indian females, as their culture values familial relationships, it is understandable that they have/desire more of these items in their bedrooms. Another noticeable finding was that a higher percentage of females in both
cultures had/desired pictures of their friends, although more American females had/desired them as compared to the Indian females. It is expected in western cultures for adolescents to move out of their families and establish bonds with others which may explain why more American females have/desire pictures of their friends in their bedrooms (Montemayor, 1983). However, for Indian females, the familial ties remain strong even during adolescence, explaining fewer pictures of their friends in their bedrooms (Arora et al., 1985).

Apart from these differences, another finding was that a higher percentage of females in both the cultures had/desire “Pictures of yourself that show who you are” as compared to males in both the cultures. The highest percentage of Indian females had/desired this item followed by American females, who were closely followed by Indian males and finally, American males. One explanation for such a finding might be that in the changing times when females are moving beyond their image of care-providers and establishing themselves as individuals with achievement aspirations, they are redefining themselves as unique individuals. This might be more so the case for Indian females who have to strike a balance between the cultural expectation of being a nurturer and a personal expectation of being an achiever. Thapan (2001) aptly stated this ambivalence experienced by Indian women as, “The resulting ambivalent construction of the Indian woman as one who is liberated and yet somehow adheres to traditional norms and values is thus a faithful reproduction of what has gone before” (p. 370). The higher percentage of Indian males having/desiring “Pictures of yourself that show who you are” as compared to American males might again show the changes in the value paradigm in the Indian culture, with a growing emphasis on individualistic values (Patel-Amin &
Power, 2002). Higher percentages of “posters of male movie stars or models” were found for both Indian males and females as compared to American adolescents. Such an outcome is likely because of the influence of media on the adolescents in the Indian culture (Thapan).

The effect of culture and gender on the material possession of university students was studied by Bryce and Olney (1991) who compared individuals from United States and New Zealand on their desires of material possessions. According to them:

In terms of consumption aspirations, one might expect men to desire instrumental objects and experiences that permit control and mastery over the environment and/or objects that represent accomplishments: sports equipment and sports competency, money, cars, a successful career, and marriage (i.e., a wife as possession). Women would be more likely to desire objects and experiences that allow nurturing and emotional expression and promote interpersonal relationships: art objects, heirlooms, family/friends and a home. (p. 5)

The findings of their study indicated that gender differences were evident in the material possessions of males and females. However, these differences varied as a function of culture. The influence of culture on material possession of the individuals was much stronger than the influence of gender. Overall, Americans showed a greater desire to have materialistic possessions in contrast to New Zealanders, who possessed items that emphasized social relationships. It was interesting to note that even when women in New Zealand did not rate possessions above social relationships, they still emphasized their desire to have them more than the New Zealand men, suggesting that they were striving to attain a social position through material acquisition. As compared to this, both men and
women in the American sample showed equal desire for material possession, reflecting on the norm of equality between the genders in the American culture. A similar trend was found for the present study where a higher percentage of Indian females had/desired material possessions, followed by Indian males, American females and finally, American males. It does appear that adolescents saw material possessions as a means for establishing their personal selves. The need to establish oneself as an independent being might be a greater driving force for Indian adolescents (especially Indian females) as compared to American adolescents.

Culture, Identity Style, and Niche-Building Behavior

Significant interaction effects were obtained between culture and identity for the item “Pictures of brother(s) and/or sister(s).” The highest percentage for this item was found for diffused/avoidant Indian males, whereas the lowest percentage was obtained for diffused/avoidant American adolescents. Diffused/avoidant adolescents in the American culture might distance themselves from their families at this stage whereas diffused/avoidant adolescents in the Indian culture might still maintain strong ties with their family member resulting in these niche differences. Support for this finding comes from a study conducted by Arora et al. (1985), who found that adolescents in the Indian culture maintained stronger emotional ties with their parents. This outcome is likely because of greater expectations for conformity to social norms and economic dependence of adolescents in the Indian culture.
Interaction effects were obtained for gender and identity. Only one item, “Dolls” showed differences amongst adolescents’ identity styles based on their gender. The highest percentage of normative females had/desired dolls in their bedrooms, whereas the lowest percentage of dolls was found for normative males. This outcome is possible because as normative adolescents are more likely to follow social norms and prescriptions, and thus, are more (females) or less (males) likely to have/desire dolls. Having dolls does not fall in line with traditional masculine role, implying that normative males are least likely to have them.

Summary

The above findings reveal several interesting outcomes, which show that the values in the Indian culture are undergoing transition (Sinha, 1982). Increased emphasis on personal achievement, changes in gender role expectations, and desire to balance traditional upbringing with growing influences of western ideologies is reflected in the items that adolescents in this culture have chosen to depict in their niche. As Larson (2002) reported, all over the world, nations have undergone rapid changes due to globalization that has altered adolescent’s experiences in a significant way. In his examination of recent trends of adolescent outcomes across the globe, Larson contended that globalization has created economic, social, and technical resources that have affected adolescents in countries like India, bringing about a change in their life styles and value preferences (Larson). For the American adolescents, the findings were very similar to
what was expected. Females in the American culture did show greater emphasis for physical appearance, which is highly valued in this culture (Berger, 2001).

Conclusion and Implication

The findings of the study are clear in implicating that based on their culture, gender, and identity, adolescents differ in the material possessions they desire and acquire for creating their niches. However, it should be emphasized here that the interactions between adolescents and their environments are bi-directional, where adolescents' environments influence them just as they influence their environments. Much additional research is needed, particularly, investigating whether or not altering the material possessions in adolescents' niches would result in different trajectories for their identity development. Results from these studies are likely to provide information about specific factors that may predict why adolescents differ in their development.

Limitations and Recommendations for Future Research

Although this study provided various insights into adolescent development in different cultures, it has a few limitations. Consideration should be given to the type of questionnaire that is used when conducting a cross-cultural comparison. The measure used here was developed in the western culture and then implemented in an eastern culture. The constructs that were used in this measure are representative of western values and beliefs. Developing a more culture-sensitive measure that would capture the meaning of concepts like identity and achievement in the eastern culture should be used in future research to enhance the external validity of these findings. Even though this
study showed robust applications cross-culturally, it should be applied in other settings, which would provide evidence for its cross-validation. Another limitation for the questionnaire comes from the way it measures gender. Only one item addressed the issue of gender by measuring the sex of the participants. Future studies should capture a broader definition of gender in order to understand how it relates to adolescent development.

The present study was cross-sectional in nature, which reduced the ability to draw causal inferences from the findings. Future studies that observe the niche-building behavior of adolescents over a period of time should be conducted to understand the person-environment interaction. Another shortcoming deals with the restriction of the grade of the participants in the study. Adolescents who belonged to eighth or ninth grade were the only ones who participated. Waterman (1982) described identity development as an age-related, progressive, and sequential process where adolescents move from the lower identity statuses (diffused/foreclosed) to higher statuses (achievement/moratorium). Archer (1982) found evidence for the age-related progression in the identity status where early and mid-adolescents were most likely to be diffused or foreclosed, whereas late adolescents were most likely to be achieved. As age influences identity, and identity influences niche-building behavior, a longitudinal study that includes participants from higher graders should be conducted to see how older adolescents create their niche.

Apart from these limitations, another problem arises due to the nature of the sample that was used. Both samples consisted of participants who belonged to either middle or upper-middle socioeconomic status and were not representative of the overall population. A random sample rather than a convenience sample could be used to reduce
biases in selection procedure of the participants. Also, the use of a self-report measure brings in the question of social desirability of the responses, which might influence the manner in which respondents answered the questions.
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Human Development

Job Description: Teaching, writing tests, grading student performance and holding office hours.

Research Assistant, 8/01-12/01, 1/02-5/02, 2/03-5/03, 8/03-12/03, 1/04- 6/04, 8/04-12/04, 1/05-4/05, 6/05-8/05
Department of Family, Consumer and Human Development
Utah State University
Logan, Utah

Research projects:

- Effect of culture, gender and identity on niche-building behavior of American and Asian Indian adolescents.
- Strong marriages in Latino culture.
- The effect of stressful life-events on the development of late-life cognitive impairments.
- Surviving and transcending a traumatic childhood.
- The moderating effects of religiosity and social support on risk relation between functional decline, gender and incidence of major depression, in a community of older adults.
- Paternal involvement in childcare.
- The parent success indicator, cross-cultural development and factorial validation.

Job Description: Conducting literature review, analyzing the data using appropriate statistical tools, interpreting and discussing results.

Teaching Assistant, 5/02-8/02, 9/02-12/02, 1/03-5/03, 8/03-12/03, 1/04-4/04, 8/04-12/04
Department of Family, Consumer and Human Development
Utah State University
Logan, Utah

Courses: Research Methods in Social Sciences
Adolescence
Child Development
Human Sexuality

Job Description: Grading assignments, holding office hours, teaching and writing tests.

Organizational Psychologist, 8/99- 8/00
Bharti Telecom Limited
Delhi, India

Job Description: Developed job-descriptions for managerial positions, created
post-training evaluation modules, data-collection, interview and selection of applicants for entrée levels.

**Grant/s**


**Publications**

**A. Articles Published**


**B. Articles Revised and Re-submitted**


**C. Article Submitted**

D. Articles in Preparation

Skogrand, L., Singh, A., & Hatch, D. The role of communication in making marriages strong in Latino culture.


E. Internet Articles


Professional Presentations

Singh, A., & Skogrand, L.
Title of presentation: Moving from religion to spirituality: The process of transcending a traumatic childhood.

Skogrand, L., Hatch, D., & Singh, A.
National Council on Family Relations, Annual Conference, November, 2005 Phoenix, Arizona
Title of presentation: Strong marriages in Latino Culture.

Singh, A., & Jones, R. M.
Utah Council of Family Relations, Annual Conference, April, 2005, Ogden, Utah.
Title of presentation: Cross-cultural comparison of Berzonsky’s identity styles: American and Asian Indian adolescents.

Skogrand, L., Hatch, D., Singh, A., & Rosenband, R.
Title of presentation: Strong marriages in Latino culture.
Singh, A., Skogrand, L., Allgood, S., DeFrain, N., DeFrain, J., & Jones, J.
National Council on Family Relations, Annual Conference, November, 2004
Orlando, Florida
Title of presentation: Traumatic childhood, transcendence and spirituality

Singh, A., Skogrand, L., Allgood, S., DeFrain, N., DeFrain, J., & Jones, J.
Society for Research in Human Development, Biennial Conference, April, 2004
Park City, Utah
Title of presentation: Spirituality and transcending a traumatic childhood.

Skogrand, L., Hatch, D., & Singh, A.
Utah Council on Family Relations, Annual Conference, April, 2004
Logan, Utah
Title of presentation: Characteristics of strong Latino and Native American marriages in Utah.

Norton, M. C., Skoog, I., Steffens, D. C., Welsh-Bohmer, K. A., Singh, A., & Breiner, J.C.S.
Orlando, Florida
Title of presentation: The moderating effects of religiosity and social support on risk relation between functional decline, gender and incidence of major depression, in a community of older adults.

Book Reviews


Teaching Workshops

- Red Rock Great Teaching Retreat, March 24-26, 2005, Zions Park Inn, Springdale, Utah.
- International Teaching Assistant Workshop, Fall 2003, Utah State University, Utah.

Awards

- Awarded Dissertation Fellowship for Fall 2005 and Spring 2006 ($2500 per semester).
• Awarded as the Graduate Research Assistant of the year by the College of Education for year 2005.

• Robins Award Nominee for the Graduate Research Assistant of the year, 2005.

• Awarded scholarship by the College of Education for the Fall 2005 and Spring 2006 ($650 per semester).

• Awarded scholarship by the College of Education for Fall 2004 and Spring 2005 ($500 per semester).

• Awarded scholarship by the College of Education for Fall 2003, and Spring 2004 ($500 per semester).

• Selected for the School of Graduate Studies, Honor Roll, Fall Semester, 2002.

• Awarded Fellowship for year 2001-02 for outstanding academic achievements ($15000).

Statistical Software Experience

• SPSS, SAS, and LISREL

Memberships

• Member: Society for Research in Human Development

• Member: Society for Research in Adolescence

• Member: Utah Council for Family Relations

• Member: Children International: A Relief Society for Children

Volunteer Experiences

• Volunteer: Lion’s International Club

• Volunteer: Mentor for students at an alternative high school
References

1. Randall M. Jones, Ph.D
   Associate Professor
   Office: Family Life 221
   Utah State University
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2. Maria C. Norton, Ph.D
   Assistant Professor
   Office: Family Life 111B
   Utah State University
   Work Phone: 435-797-1599
   Email Address: mnorton@cc.usu.edu

3. Linda Skogrand, Ph.D
   Assistant Professor
   Office: FHD West 104
   Utah State University
   Work Phone: 435-797-8183
   Email Address: lindas@ext.usu.edu

4. Kaelin Olsen, M. S.
   Lecturer
   Office: Family Life 105
   Utah State University
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   Email Address: kolsen@cc.usu.edu