

ACCULTURATION, ACCULTURATIVE STRESS, AND PSYCHOLOGICAL ANDROGYNY
AMONG SIKH ADOLESCENTS

by

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ABSTRACT

This research study examined the relationships between acculturation, acculturative attitudes, acculturative stress, and psychological androgyny among first and second generation, (or Indian born and Canadian born), Sikh male and female adolescents in grades 9, 10, 11, and 12. A total of 114 subjects were administered the Acculturative Attitudes Survey, the Cawte Acculturative Stress Scale, and the Bem Sex Role Inventory.

A one way ANOVA indicated that second generation Sikh adolescents had a significantly higher acculturative stress than the first generation Sikh adolescents . No significant gender differences in the level of acculturative stress were found for either the first or the second generation Sikh male and female adolescents. Marginalization was found to have a significant positive relationship with acculturative stress for all Sikh adolescents combined. Additionally, masculinity was found to have a significant inverse relationship with acculturative stress for second generation Sikh adolescents in addition to the positive correlation of marginalization. It was also found that Integration has a significant positive relationship with acculturative stress for the first generation Sikh female adolescents.

The results of the regression analyses suggest that Integration and Marginalization are the best indicator of acculturative stress for Sikh adolescents. However, masculinity and Marginalization were found to be the best predictors of

acculturative stress for second generation Sikh adolescents.

The present study also set out to examine if Sikh adolescents have any significant difference in their level of acculturative stress, acculturative attitudes with respect to their conceptualizations of themselves as masculine, feminine, androgynous or undifferentiated based on the Bem Sex Role Inventory. Sikh male and female adolescents classified as feminine have a significantly higher level of acculturative stress than any of the other groups on the Bem Sex Role Inventory.

The results also indicate significant relationships among masculinity, femininity, and acculturative attitudes. Masculinity was found to have a significant inverse relationship with assimilation for first generation Sikh male adolescents and a significant inverse relationship with Marginalization for second generation Sikh male adolescents. Femininity was found to have a significant positive relationship with Separation for all Sikh male adolescents. No such relationships were found for the Sikh female adolescents.

FOR

My wife, Palbinder Kaur,

my strength
my conscience
my soulmate

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CHAPTER I

INTRODUCTION

Canada is a culturally pluralistic society comprised of people from many ethnic backgrounds. These individuals bring with them their own cultural values, traditions and socialization practices, many of which may be very different from those of the mainstream European culture in Canada. In order to facilitate the harmonious existence between these groups, the Canadian government has embraced a policy which encourages multiculturalism. Berry (1985) states that the term multicultural society refers to those societies which are plural and show signs of valuing their pluralism, rather than attempting to reduce or eliminate it. He states that a multicultural society

is assumed to be a more complex pattern in which no single group is dominant in all regions (or in all social spheres), and smaller groups are incorporated in (and involved with) other groups in a variety of complex ways. (p.36-37)

Berry, Kim, Minde, and Mok (1987) state that the various ethnic groups in a plural society are inevitably bound to undergo the process of acculturation, which is defined as culture change which results from continuous first hand contact between two distinct cultural groups. Acculturation occurs at two levels, the group level and the individual (psychological acculturation) level. At the individual level, these changes may affect personal values and habits, beliefs, social relationships, and issues related to identity. Acculturative attitudes result when individuals differ

in the way that they wish to become involved with other persons and groups in society (Berry, 1987).

Acculturation is in no way an easy process. A group or an individual may experience different levels of stress associated with the process of acculturation. Stress which is associated with acculturation has been termed as acculturative stress because the stressors associated with it are identified as having their source in the process of acculturation (Berry, Kim, Minde, & Mok, 1987). Therefore, acculturative stress is often associated with a particular set of stress behaviours, such as, "lowered mental health status (particularly confusion, anxiety, depression), feelings of marginality and alienation, a heightened psychosomatic symptom level, and identity confusion. Acculturative stress is thus a reduction in the health status of individuals, and may include physical, psychological, and social aspects..." (Berry, Kim, Minde, & Mok, 1987, p. 492).

Some of the possible reasons for acculturative stress may be related to intercultural value conflicts, arising because ethnic groups in a multicultural society may have different value systems, traditions, customs, concepts of social roles, and socialization practices than those of the majority society. There may also be variations within ethnic groups both in the degree and rigidity of the above differences.

One of the major areas where cultures differ is in the socialization practices for males and females, which may lead to sex role differentiation. Sex differentiation is greatest where child-care is solely the responsibility of females, and where the economy emphasizes physical strength (Basow, 1984). Most cultures

expect males to be more aggressive, assertive, and achievement oriented, whereas females are expected to be more nurturant, sensitive and responsible (Whiting, & Edward, 1973). Sethi and Allen (1984) conclude that:

all cultures distinguish between behaviours considered appropriate for males and females; differences between males and females appear early in life and continue to be reinforced and maintained through differential socialization of males and females. (p.615)

There also appears to be considerable diversity in the cultural patterning of behaviours considered appropriate for males and females.

Cross cultural studies in this area have been limited in scope, and have essentially focused on either comparing sex typing between two countries (i.e., Saudi Arabia and United States) or comparing a sample of individuals from an ethnic group exposed to Western culture for a short period of time, with a sample of individuals from the larger western community (Al-Qataee, 1984; Basow, 1984, 1986; Rao, V. V. P. & Rao, V. N., 1985; Sethi & Allen, 1984; & Williams & Best, 1990a, 1990b). There has been a notable lack of research looking at the relationship among acculturative attitudes, acculturative stress and sex typing among individuals who may be going through the process of acculturation.

PURPOSE OF THE STUDY:

The purpose of this study is to examine possible relationships that may exist between acculturative stress, acculturative attitudes, and sex typing among male and female Sikh adolescents in grades 9, 10, 11, and 12, in high schools in Surrey, British Columbia.

JUSTIFICATION AND SIGNIFICANCE OF THE STUDY:

The Indo-Canadian population of Canada is approximately 300,000. Of these, approximately 150,000 reside in British Columbia. They comprise one of the largest visible minority groups in the greater Vancouver regional district. The majority of the Canadian and British Columbian Indo-Canadian population is of the Sikh faith. Although the Sikh culture is considerably different than other Indian cultures, since most of the Indo-Canadian population is of the Sikh faith, the predominant culture of Indo-Canadians is considered to be synonymous with the Sikh culture. Thus, the two terms are used interchangeably in this study.

The Sikhs differ significantly from the mainstream population in terms of their physical features and visibility, religion, culture, language, customs, and socialization practices (Chadney, 1984). The Sikhs have been in Canada for approximately 100 years, although the majority of them arrived in the 1970's. They and their children may encounter the possibility of acculturation and acculturative stress (Berry, Kim, Minde, & Mok, 1987).

There have been very few published Canadian studies specifically dealing with acculturation, and acculturative stress, in the Sikh community and none, that I am aware of, dealing with acculturation, acculturative stress and sex typing in the Sikh community. Basu (1989) and Kurian (1986) point out that the prevalence of acculturative stress within this population may dramatically increase in the near future as more 2nd generation Sikhs reach adolescence. The two recent studies involving this particular population have primarily focused on (a) acculturative

stress, self-esteem, and ethnic identity in 2nd generation Sikh adolescents (Sidhu, 1990) and (b) identity formation and acculturation in 2nd generation Indo-Canadian youths and young adults (Tonks, 1990). Neither of these studies specifically examined acculturative attitudes and acculturative stress and sex typing in the Indo-Canadian population.

Research with other ethnic groups has shown a consistent relationship between acculturative attitudes and acculturative stress (Berry, 1980, 1985; Berry, Kim, Minde, & Mok, 1987). Most of the acculturation research has focused on studying the relationship between acculturative attitudes and acculturative stress and has not examined this relationship in the context of other variables such as sex typing. The androgyny literature asserts that androgynous individuals are freed from the need to evaluate themselves and others in line with prescriptive sex-linked standards and, consequently, are able to behave in more diverse ways (Bem, 1974, 1979, 1981a). It is important to carry out research in this area with this particular population and examine the above relationships.

A thorough review and search of the literature on sex typing, and acculturation did not yield any studies that specifically examined the relationship between sex typing, and the different acculturative attitudes. Androgynous and sex typed individuals may also differ in their mode of acculturation, acculturative attitudes and may respond to acculturative stress differently. Individuals from different ethnic groups may vary in terms of their sex typing, as they may vary in their mode of acculturation, acculturative attitudes and their response to acculturative stress.

Chadney (1984) states that in the Indian society, the sexual division of tasks and sexual separation may follow a rigid pattern, whereas in the mainstream Canadian society this division may not appear to be as rigid. Sex roles appear not to be as fluid and interchangeable in the Indian society as they appear to be in the mainstream Canadian society. Furthermore, he characterizes the "typical" Canadian mainstream family as being more democratic, egalitarian, and symmetrical than the "typical" Indian family. In the egalitarian Canadian family, women gain greater independence and participate more in decision making in family matters, whereas in the Indian family the position of women may be characterized as involving dependence, adjustment, self-sacrifice, and moral obligations. Although the validity of these specific assertions has to be further examined, there may be major differences regarding sex typing and sex roles between Indians and mainstream society. These differences may lead to acculturative stress for Sikh adolescents who are trying to establish their identity in a pluralistic society.

Bem (1974, 1981a) has proposed that non sex typed or androgynous individuals are able to be more flexible and have a diverse response repertoire of behaviour than the sex typed individuals. Therefore, one may expect androgynous individuals to display either or both masculine and feminine behaviour, depending upon the requirements of a specific situation, as compared to sex typed individuals who may be restricted to either masculine or feminine behaviour, as prescribed by society or more specifically by the ethnic culture.

It may thus be inferred that androgynous individuals from different ethnic backgrounds may be at an advantage during the process of acculturation as compared to sex typed individuals from the same backgrounds. One may expect androgynous individuals to be better adapted to acculturation due to the above noted flexibility of behaviour, as opposed to their sex typed counterparts. Thus, the androgynous individuals may be less prone to acculturative stress. Furthermore, androgynous individuals may not feel the need to be constrained by any culture, and so they may be more likely to maintain their own culture as well as participate in the host culture, resulting in integration.

As previously stated, cross cultural studies in this area have basically focused on either comparing sex typing between two countries (i.e., Saudi Arabia and the United States) or comparing a sample of individuals from an ethnic group exposed to Western culture for a short period of time, with a sample of individuals from the larger western community. Most of these studies have found sex typing to be a universal phenomenon, although cultures may differ in the degree and rigidity of sex typing (Al-Qataee, 1984; Basow, 1984, 1986; Rao, V. V. P. & Rao, V. N., 1985; Sethi & Allen, 1984; & Williams & Best, 1990a, 1990b). However, there is a lack of research examining the possible relationships among the constructs of acculturation, acculturative attitudes, acculturative stress and psychological androgyny, as well as a lack of research with the Sikhs involving the above constructs. Research with this population will help to fill this void as well as to provide specific information about these constructs in the Sikh population. This may help devise educational and counselling programs for this

population as well as other ethnic minorities within the Canadian mosaic.

Since a majority of the Indo-Canadian population is of the Sikh faith, the homogeneity within the research study can be increased by specifically studying Sikh male and female adolescents in a particular school district. Specific questions to be addressed in this study are as follows:

1. Is there a relationship between acculturative stress and the different acculturative attitudes among male and female Sikh adolescents in grades 9, 10, 11, and 12?
2. Is there a relationship between acculturative stress and sex typing among male and female Sikh adolescents in grades 9, 10, 11, and 12?
3. Is there a relationship between acculturative attitudes and sex typing among male and female Sikh adolescents in grades 9, 10, 11, and 12?
4. Are there any differences in the above results between first and second generation male and female Sikh adolescents in grades 9, 10, 11, and 12?
5. Are there gender differences in the levels of acculturative stress, acculturative attitudes, and sex typing among male and female first and second generation Sikh adolescents in grades 9, 10, 11, and 12?

OPERATIONALIZATION OF CONSTRUCTS:

- Acculturation:** culture change which results from continuous first hand contact between two distinct cultural groups.
- Acculturative Attitudes:** refer to the four acculturative attitudes of integration, assimilation, separation and marginalization as defined in the model of acculturation proposed by Berry (1987).
- Acculturative Stress:** refers to one kind of stress, that in which the stressors are identified as having their source in the process of acculturation.
- Sex Typing:** as measured on the Bem Sex Role Inventory developed by Bem (1974, 1981a), and scored using the median split method yielding the following categories: masculine, feminine, androgynous, and undifferentiated.
- First Generation:** refers to those individuals, both male and female, who are not born in Canada but whose parents immigrated from a foreign country to Canada.
- Second Generation:** refers to those individuals, both male and female, who are born in Canada but whose parents immigrated from a foreign country to Canada.

CHAPTER II

LITERATURE REVIEW

In this chapter, I will provide a review of the related literature on acculturation, acculturative attitudes, and acculturative stress as well as sex typing and psychological androgyny. This chapter is divided into two sections entitled, acculturation, acculturative attitudes, and acculturative stress, and psychological androgyny. These sections are further subdivided where appropriate.

ACCULTURATION, ACCULTURATIVE ATTITUDES, & ACCULTURATIVE STRESS

Acculturation refers to culture change which results from continuous first hand contact between two distinct cultural groups, as may be the case in plural or multicultural societies. Redfield, Linton, and Herskovits (1936) state that acculturation comprehends those

phenomena which result when groups of individuals having different cultures come into first-hand contact with subsequent changes in the original culture patterns of either or both groups. (p. 149)

Acculturation occurs at two levels, the group level and the individual (psychological acculturation), level.

At the psychological level, these changes may involve personal values and habits, beliefs, social relationships, and issues related to identity. Berry, Kim, Minde and Mok (1985) state that individual changes that an acculturating group may experience,

can be categorized into five different types: physical, biological, cultural, social, and psychological. Firstly,

physical changes may occur, such as a new place to live, new housing, and a new climate. Secondly, biological changes may occur, such as new nutrition status and new diseases. Thirdly, a new set of social relationships may be formed including a reclassification of ingroup and outgroup. Fourthly, cultural changes may occur, with the original political, economic, religious and social institutions becoming altered or replaced. Finally, psychological changes may occur including shifts in attitudes, values, beliefs and mental health status. (p.159)

However, individuals differ in the way that they wish to become involved with other persons and groups in the society. These varying preferences are termed acculturative attitudes (Berry, 1987). Berry (1987) has proposed a model which attempts to account for these different acculturative attitudes. His model is based on two central issues that all acculturating individuals and groups encounter. These are: (a) cultural maintenance, which is defined as the desire, or lack thereof, of the group or the individual to maintain culture and identity; and, (b) contact participation, which is defined as the desire to have contact with the larger society.

These central issues generate two fundamental questions. Cultural maintenance asks "is it considered to be of value to maintain cultural identity and characteristics?" and contact participation asks "is it considered to be of value to maintain contact with other groups?". When these two central issues are posed simultaneously, a conceptual framework is generated based on these two questions corresponding to the two fundamental issues of cultural maintenance and contact participation in Berry's (1987) model which posits four varieties of acculturation. These are: integration, assimilation, separation, and marginalization, as illustrated in Figure 1. The validity of each of these four

conceptual alternatives has been assessed with individuals in a variety of groups which are experiencing acculturation (Berry, Kim, Power, Young, & Bujaki, 1984).

Figure 1
Berry's Acculturative Attitude Scheme

Is it considered to be of value to maintain contact with other groups?	Is it considered to be of value to maintain cultural identity and characteristics?		
		Yes	No
	Yes	Integration	Assimilation
	No	Separation	Marginalization

Berry (1987) elaborates on each of these four varieties of acculturation. Assimilation results when an individual does not wish to maintain his identity and seeks daily interaction with the other culture(s). In contrast, separation occurs when an individual places a value on holding onto one's original culture, and furthermore wishes to avoid interaction with the other culture(s). Marginalization occurs when there is a lack of interest in maintaining one's cultural integrity, and it is usually due to enforced cultural loss and a lack of interest in association with the dominant group, often because of perceived discrimination. Marginalization is usually "accompanied by a good deal of collective and individual confusion and anxiety. It is especially characterized by striking out against the larger society and by feelings of alienation, loss of identity, and what has been termed acculturative stress" (p.227). Integration is defined when an individual is interested in both maintaining and developing one's

original culture, and in daily interactions with other culture(s). In the integration mode, some degree of cultural integrity is maintained, and at the same time there is movement towards participation as an integral part of the larger social network. Integration is the desired mode of acculturation as it is associated with lower acculturative stress and good mental health.

Berry (1979, 1987), in a comprehensive review of the literature on cross cultural studies, noted that psychological responses at the individual level to acculturation may occur in a number of different areas such as acculturative stress, behavioural shifts, personality, identity, attitudes, cognitive style, and language.

Although acculturation does not necessarily result in a crisis situation for a majority of the people, it is in no way an easy process. A group or an individual may experience different levels of stress associated with the process of acculturation. This type of stress has been termed acculturative stress because the stressors associated with it are identified as having their source in the process of acculturation (Berry, Kim, Minde, & Mok, 1987). Acculturative stress is therefore often associated with a particular set of stress related behaviours such as "lowered mental health status (specifically confusion, anxiety, depression), feelings of marginality and alienation, a heightened psychosomatic symptom level, and identity confusion" (Berry, Kim, Minde, & Mok, 1987, p. 492).

Research has shown that the attitudes held by individuals toward the acculturation experience are important in the experience

of stress (Berry, Kim, Minde, & Mok, 1987). Berry (1985), states that:

consistently, those whose acculturation attitudes are favourable toward Integration have been found to have better mental health than those whose attitudes favour Separation; high Assimilation attitudes are associated with an intermediate level. Most importantly, those feeling Marginalized often experience the greatest stress and serious loss of mental health status. (p.47)

Furthermore, it has been found that females score higher on stress and this result is consistent with other studies (Berry, Kim, Minde, & Mok, 1987). It is, however, unclear whether this is because of the actual experience of greater stress or whether females are more likely to report the experience of stress than males (Kim, & Berry, 1985). A number of other factors have also been cited which may moderate the relationship between acculturation and stress. These are: the nature of the larger society; type of acculturating group; and demographic, social and psychological characteristics of the individual. Other factors that may also influence the above relationship may include: education, age, sex related issues, cognitive style, prior intercultural experience, and family context.

The nature of the larger society refers to whether there is a multicultural or assimilationist ideology in the majority culture. The former emphasizes a tolerance for the cultural diversity whereas the latter stresses conformity to the dominant ideology. Ulloa (1986) notes that in general, the school system focuses and reinforces the culture of the dominant group. Society's assimilationist attitudes have been identified as resulting in higher stress for the acculturating individuals (Berry, Kim, Minde, & Mok, 1987). Differences in stress levels may also occur because

The type of acculturating group refers to whether this acculturating group is comprised of refugees, immigrants, native people, ethnic groups, or sojourners. Membership within the different groups may involve varying degrees of voluntariness, movement, and permanence of contact with the dominant society. Involuntary contact such as that experienced by refugees or native people, may lead to higher stress than voluntary contact by immigrants. (Sidhu, 1990, p.16).

PSYCHOLOGICAL ANDROGYNY

Sex Typing and Psychological Androgyny:

Ethnic groups in a multicultural society bring with them their own value systems, traditions, concepts of social roles and socialization practices. They also differ in both the degree and rigidity of sex role differentiation. Where child care is solely the responsibility of females and where physical strength is emphasized in the economy, sex role differentiation is the greatest (Basow, 1984). Generally speaking, in most cultures males are expected to be more aggressive, assertive, and achievement oriented, and females are expected to be more nurturant, sensitive and responsible (Whiting, & Edward, 1973). Sethi and Allen (1984), in an extensive review of the literature, conclude the following:

all cultures distinguish between behaviours considered appropriate for males and females; differences between males and females appear early in life and continue to be reinforced and maintained through differential socialization of males and females. (p.615)

Further, there appears to be considerable diversity in the cultural patterning of behaviours considered appropriate for males and females.

Traditional conceptualizations of femininity and masculinity have maintained an emphasis upon the distinctions between the sexes (Cook, 1985). Masculinity has been associated with an instrumental/agentive orientation involving goal orientation,

(Cook, 1985). Masculinity has been associated with an instrumental/agentive orientation involving goal orientation, assertive activity, self development, and separation from others. Femininity has been associated with an expressive/communal orientation involving sensitivity, emotionality, selflessness, conformity, and interrelationships. The pattern and the level of feminine and masculine characteristics adopted and exhibited by a person is referred to as sex role identity, and is learned through the sex typing process.

Traditionally, masculinity and femininity were conceptualized as a continuum with femininity and masculinity positioned as endpoints on a single bipolar, unidimensional trait and logical reversals of each other (Kelly & Worell, 1977). When so defined, high masculinity implies low femininity; the absence of masculine characteristics necessarily implied the presence of feminine ones. Therefore, it was impossible to be both simultaneously. Thus, the meaning of masculinity and femininity was defined in terms of the empirical sex-differentiated frequency of an item endorsement without any apparent reliance on any theory or concept of sex roles. However, Constantinople (1973) in her landmark review indicated that such a representation of masculinity and femininity was inadequate to convey the complexity of the sexes' self-descriptions.

More recent formulations of sex roles (Bem, 1974; Spence, Helmreich, & Stapp, 1975) have relied on a different set of assumptions. They may be summarized as: (a) an orthogonal two-dimensional model of masculinity-femininity; (b) a socio-cultural definition of sex roles; (c) the sampling of positive, socially

valued but sex typed characteristics; and (d) a response repertoire model of sex role style. This new formulation views masculinity and femininity to be two distinct and independent poles rather than the opposite ends of the same pole. Therefore, it is possible for an individual to be high (or low) on both the masculinity dimension and the femininity dimension simultaneously.

Bem (1974, 1979) postulated that sex typed individuals have internalized society's sex-appropriate standards for desirable behaviour to the relative exclusion of the other sex's typical characteristics. This internalization has a marked impact upon the sex typed person's view of the world and others, self descriptions, expectations and attitudes, and behaviours. Non sex typed or androgynous individuals are freed from the need to evaluate themselves and others in line with prescriptive sex-linked standards and, consequently, are able to behave in more diverse ways. Bem, Martyna, and Watson (1976) state that the:

concept of psychological androgyny implies that it is possible for an individual to be both masculine and feminine, both instrumental and expressive, both agentic and communal, depending upon the situational appropriateness of these various modalities; and it further implies that an individual may even blend these complementary modalities into a single act... (p. 1016)

Androgyny is further assumed to be a highly desirable, even ideal, state of being. Bem (1981a), in her recent gender schema theory, distinguishes sex typed persons from non sex typed persons in terms of their cognitive processing rather than simply the amount of feminine or masculine attributes they possess. Research studies using global adjustment and self esteem, locus of control, and anxiety measures show some tendency for androgynous persons to score as the most positive (Cook, 1985, 1987).

Bem (1974, 1981a) has also developed the Bem Sex Role Inventory (BSRI) in order to assess the above constructs with regards to sex typing. The Bem Sex Role inventory contains two scales, one for masculinity and the other for femininity, along with some filler, (neutral), items. When scored using the median split method on the above scales, this instrument yields four categories into which individuals can be classified as illustrated in Figure 2.

Figure 2
Bem's Classification Scheme
based on the Bem Sex Role Inventory

		Masculinity Score	
		Below Median	Above Median
Femininity Score	Below Median	Undifferentiated (low-low)	Masculine (low fem-high masc)
	Above Median	Feminine (high fem-low masc)	Androgynous (high-high)

The androgyny literature asserts that androgynous individuals are freed from the need to evaluate themselves and others in line with prescriptive sex-linked standards and, consequently, are able to behave in more diverse ways (Bem, 1974). Cook (1987) further states that "Bem (1981a) has also proposed that sex-typed individuals are more sensitive to cues concerning sex-appropriate behaviour in a situation, and then act in accordance with them. Presumably, non-sex typed persons can pick up personally salient cues of a different sort (e.g., pertinent to immediate rewards or status) and consequently behave differently from their sex-typed counterparts" (p.492). Therefore, it may be inferred that

androgynous individuals from different ethnic backgrounds may be at an advantage during the process of acculturation as compared to sex typed individuals. Androgynous and sex typed individuals may also differ in their mode of acculturation, and may respond to acculturative stress differently. Bem (1974, 1981a) proposes that non sex typed or androgynous individuals are able to be more flexible and have a diverse response repertoire of behaviour than the sex typed individuals. Therefore one may expect androgynous people to display either or both masculine and feminine behaviour, depending upon the requirements of a specific situation, as compared to the sex typed individuals who are restricted to either masculine or feminine behaviour, as prescribed by society or more specifically by the ethnic culture.

In the case of acculturation one may expect androgynous individuals to be better adapted due to the above flexibility as opposed to their sex typed counterparts. The androgynous individuals may thus be less prone to acculturative stress and may respond to acculturative stress differently as compared to their sex typed counterparts. Furthermore, androgynous individuals may not feel the need to be constrained by any culture, and so they may be more likely to maintain their own culture as well as participate in the host culture, resulting in integration.

Adolescent Development and Psychological Androgyny:

Adolescence, in general, is described as a time of major change. During this period of development the individual undergoes rapid physical changes, has increasing cognitive ability, is more aware of one's self, and has substantially more social expectations

placed on him/her. There have been a number of theories proposed to account for these changes as well as issues related to sex typing and sexual identity. I will briefly review some of the main developmental theories as they relate to the sex typing and sex role identity in this section.

Schiedel and Marcia (1985), and Tzuriel (1984), in their review of ego identity formation and sex typing, summarize Erikson's theoretical formulations as follows. Erikson's fifth stage of psychosocial development, which occurs during adolescence, is characterized as "Identity versus identity diffusion". Adolescence is assumed to be the first time that intellectual, emotional, physical, and societal factors are sufficiently present both to allow and to demand that identity issues be dealt with. Erikson distinguished between the "inner" and "outer" space that corresponds, respectively, to a feminine tendency towards care, devotion, and sensitiveness, and to a masculine inclination for technology, construction, and instrumentality. Basically, Erikson relates sex typing to an integrated ego development. Erikson emphasizes the role of identification with same-sex figures as essential for establishment of a firm ego identity. He also states that the acquisition of both masculine and feminine sex roles (androgyny) by men or women is possible only when permitted by society. The inference may be drawn that androgynous persons have a more integrated ego identity than sex typed persons, because they allow themselves flexibility and adaptability in utilizing their rich behaviour repertoire, fitting it to specific situational demands and not being restricted to sex role stereotypes. Tzuriel (1984) also states that a number of studies have found that the

integration of expressive and instrumental orientations (androgyny) is essential to the development of a consolidated ego identity, and that psychological androgyny has been found to be generally associated with higher levels of identity formation.

In the sex role transcendent model of Hefner, Rebecca, Oleshansky, and Nordin (cited in Fischer & Narus, 1981a), there are two stages beyond the conventional stereotyped stages identified by the traditional theories. The androgynous stage, in which the individual has both masculine and feminine characteristics, is the first movement beyond the conventional framework. The transcendent stage, in which behaviours are appropriate to the situation regardless of sex role expectations, is the second movement. Since the latter is a hypothetical stage at present, androgyny becomes the appropriate focus for consideration as part of the sex role development process.

Social learning theorists (Cook, 1985), emphasize that the sexes develop different meaning, values, and frequency of behaviour through: observation of others; direct or indirect reinforcement of their own or other's behaviour; and their cognitive processing of these differences. Reinforcement is especially regarded as important in determining an individual's choice among possible behaviours in a situation, as well as a personal evaluation in terms of one's personal standard and rules. Therefore, one develops his/her own sex role identity based on the above processes through his/her life experiences.

According to the Cognitive-developmental theory (Cook, 1985), sex stereotypes, sex typed values, and same sex identifications are the consequences of a sex typed identity rather than the cause. The

highly sex typed person becomes motivated, during the course of sex role socialization, to keep his/her behaviour consistent with an internalized sex role standard; that is, the individual becomes motivated to maintain a self-image as masculine or feminine, a goal which he/she presumably accomplishes by suppressing any behaviour that might be considered undesirable or inappropriate for his/her sex. Therefore, the cognitive-developmental theory centres on the person's conceptions of the world: on how one perceives and categorizes the things and people around them. It takes the opposite causal view that imitation and reinforcement of sex typed behaviour is actually guided by some form of internalized sex role identity.

Bem (1981b) in her Gender Schema Theory has proposed that the self concepts and behaviours of sex typed individuals are organized on the basis of gender, in addition to her postulations that have been stated previously. These individuals cognitively process incoming perceptual information in terms of culturally based definitions of femininity and masculinity, thereby resulting in the internalization of those definitions. She proposes that this process occurs through several steps. First, children learn of the existence of sex based separation and characteristics which teaches them the network of sex linked associations and therefore to perceive the world in those terms. Secondly, it operates in the self evaluation of an individual in terms of this gender schema. This gender schema functions as a standard for evaluation of one's characteristics and personality by self and others. This further pressures one to conform to these definitions. Thus, sex typed

individuals can be differentiated from non sex typed individuals with respect to their gender schematic processing.

Sex typed individuals process and organize incoming data and information based on culturally defined definitions of masculinity and femininity, and this in turn plays a significant part in determining their self concepts and behaviours. As Bem (1981b) states, "sex-typed individuals are seen as differing from other individuals not primarily in terms of how much masculinity or femininity they possess, but in terms of whether or not their self-concepts and behaviours are organized on the basis of gender."(p.356) She also states that the Bem Sex Role Inventory and other instruments measuring androgyny can be used to distinguish people who engage in gender schematic processing.

This research study employs Bem's (1974, 1979, 1981a, 1981b) formulations as well as the Bem Sex Role Inventory in order to examine possible relationships between androgyny (sex typing), acculturation, acculturative attitudes, and acculturative stress.

Having outlined some of the major theoretical frameworks it is important to note that in the field of cross cultural studies,

virtually any behaviour studied by psychology is a candidate for a shift during acculturation. Of course, this challenges the basic notions of the personality trait and behavioral stability, which posit continuity over time and across situation. However, the field of cross cultural psychology has established some fairly solid linkages between how an individual acts (including thoughts, feelings, and motives) and the culture which nurtured him; it should not be difficult to accept, then, that when the culture changes the individual may change as well. What may be stable over time is the culture-behaviour linkage, but not the behaviour itself. (Berry, 1985, p.40)

Therefore, sex typing, acculturative attitudes as well as ethnic and racial identity, sex role identity, and some other psychological constructs may also be subject to such a shift.

Cross cultural studies in this area have basically focused on either comparing sex typing between two countries (i.e., Saudi Arabia and United States) or comparing a sample of individuals from an ethnic group exposed to Western culture for a short period of time with a sample of individuals from the larger western community (Al-Qataee, 1984; Basow, 1984, 1986; Rao, V. V. P. & Rao, V. N., 1985; Sethi & Allen, 1984; & Williams & Best, 1990, 1990). However, there is a lack of research examining sex typing, acculturation, acculturative attitudes, and acculturative stress among acculturating individuals. Research examining the above constructs is needed in order to look at the possible relationships among these constructs as well as to verify the above assumptions.

CHAPTER III

METHODOLOGY

The purpose of this research study was to determine whether a relationship exists between the different acculturative attitudes, the levels of acculturative stress, and sex typing or psychological androgyny among Sikh adolescents. The participants for this study consisted of students in grades 9, 10, 11, and 12, from three high schools in the Surrey School District in Surrey, British Columbia. A majority of the participants were born in Canada whose parents immigrated to Canada, while a small minority were born outside of Canada and immigrated to Canada with their parents.

A review of the literature suggests: a) a multilevel relationship between acculturative attitudes and acculturative stress, b) a general lack of research knowledge examining the relationship among acculturative attitudes, acculturative stress, and psychological androgyny (or sex-typing) with either the majority population or the Sikh population. In this chapter, I will describe the methodology which was employed to conduct this study and to answer the relevant research questions.

RESEARCH QUESTION, SAMPLE, DESIGN, AND DATA COLLECTION

Research Questions:

The present study set out to investigate possible relationships that may exist between the different acculturative attitudes, the levels of acculturative stress, and sex typing or

psychological androgyny among Sikh adolescents. The primary purpose was to answer the following questions:

1. Is there a relationship between acculturative stress and the different acculturative attitudes among male and female Sikh adolescents in grades 9, 10, 11, and 12?
2. Is there a relationship between acculturative stress and sex typing among male and female Sikh adolescents in grades 9, 10, 11, and 12?
3. Is there a relationship between acculturative attitudes and sex typing among male and female Sikh adolescents in grades 9, 10, 11, and 12?
4. Are there any differences in the above results between first and second generation male and female Sikh adolescents in grades 9, 10, 11, and 12?
5. Are there gender differences in the levels of acculturative stress, acculturative attitudes, and sex typing among male and female first and second generation Sikh adolescents in grades 9, 10, 11, and 12?

Sample:

Subjects were drawn from a population which includes male and female Sikh adolescents living in an urban setting in British Columbia, Canada. The sample consisted of 114 male and female grades 9, 10, 11, and 12, Sikh students attending three school in the Surrey School District in Surrey, British Columbia.

Sample selection was conducted by obtaining permission to carry out the study, from the schools and the school board of concern. Individual schools were then contacted by letter with a telephone follow-up. School counsellors were asked to invite Sikh students fitting the criteria for this study. Parental consent was obtained for each student participating in this research study. Furthermore, consent was obtained from the subjects as well. There were no foreseeable or expected physical or mental risks for the students participating in this study.

Design:

This study employed a basic cross sectional correlational study which will examine any possible relationship among the following variables: acculturation, acculturative attitudes, acculturative stress, and sex typing. All subjects within a each school were administered a demographic questionnaire in alongwith three psychological instruments (refer to section on instrumentation) at one group sitting at each of the three schools.

Data Collection:

All tests were administered by the researcher in a group setting in the school. All subjects from a particular school were administered the test at one sitting. Students were required to complete all three measures as well as a demographic questionnaire. The total time commitment involved was approximately one hour (60 minutes). Confidentiality was strictly maintained at all times. Students were instructed, both verbally and in writing, not to write their names on the tests. The data obtained from the measures were subjected to appropriate statistical analyses. In the case of incomplete data, the appropriate statistical analyses were adjusted to take this factor into account.

INSTRUMENTATION

The instruments used in this research study were: a demographic questionnaire entitled "Background Questionnaire", the Acculturative Attitudes Survey (AAS), the Bem Sex Role Inventory (BSRI), and the Cawte Acculturative Stress Scale (CASS). The Acculturative Attitudes Survey consists of 80 items to be rated on

a 5 point Likert-type scale. The Bem Sex Role Inventory consists of 60 items to be rated on a 7-point scale. The Cawte Acculturative Stress Scale consists of 20 items requiring a simple "yes" or "no" response. The CASS is entitled "Health Related Questionnaire". Copies of the instruments along with their scoring keys are presented in the Appendices.

Acculturative Attitudes Survey:

The Acculturative Attitudes Survey (AAS) is an instrument designed to measure the different acculturative attitudes and has been used with various ethnic groups including Sikh adolescents (Berry, 1985; Tonks, 1990). It has four scales corresponding to the four varieties of acculturative attitudes: integration, assimilation, separation, and marginalization. The acculturative attitudes survey (AAS) has also been used with a number of other ethnic groups. However, to the best of my knowledge, it has been used in only one other study involving Sikh adolescents (Tonks, 1990).

The present instrument consists of a total of 20 items for each of the four acculturative attitudes scales of integration, assimilation, separation, and marginalization, for a total of 80 items. These have been derived from the measure developed by Tonks (1990) for the Indo-Canadian population which was based on the theoretical model and an outline provided by Berry, (1987), and Berry, Kim, Power, Young, and Bujaki (1989). The present instrument was used with permission from Randal Glenn Tonks and John Berry. These items tap into the following domains: child rearing, clothes, dance and entertainment, dating, food, friendship, furniture, history, Indian festivals and culture, language, lifestyle, living

clusters, magazines, marriage, music, names, newspapers, organizations, society, values, and work (Tonks, 1990).

Each of the items in this survey is a statement representing one of the four acculturative attitudes and one of the 20 domains. The subjects were asked to respond to these statements on a five point Likert-type scale ranging from strongly disagree to strongly agree. The scales are scored by adding the corresponding 20 items for each of the scales and then dividing the total by the number of items answered by the subject, in order to obtain the final score for the appropriate scale which falls between 1 and 5.

Tonks (1990) provides reliability coefficients for these scales for the Indo-Canadian normative sample. The reliability coefficients (Cronbach's alphas) reported are .7039, .6168, .4031, .4903, for integration, assimilation, separation, and marginalization, respectively. The reliability coefficients for three of the four scales are quite low, indicating a diversity of items within each scale. These results are slightly lower than reliabilities for new scales reported by Berry, Kim, Power, Young, and Bujaki (1989). It has been reported by these researchers, however, that refined scales for all four acculturative attitudes can have Cronbach's alphas in the range of .70 to .90. Even though this is a fairly new measure of acculturation, the lack of a more reliable measure of acculturation necessitates the use of this instrument.

Bem Sex Role Inventory:

The Bem Sex Role Inventory (BSRI) consists of two scales, femininity and masculinity, which when scored using the median

split method on the scales of femininity and masculinity, yield a four fold classification scheme as follows: masculine, feminine, androgynous, and undifferentiated (Bem, 1981a). The Bem Sex Role Inventory consists of 60 items to be rated on a 7-point scale. The BSRI is a powerful tool which is employed for independent assessment of psychological androgyny in the field of sex typing (Mitchell, Jr., 1985).

The Bem Sex Role Inventory (BSRI) has been successfully used in a number of cross cultural studies. Bem (1981a) mentions that the short form of the BSRI is more reliable and internally consistent. It consists of the first 30 items of the 60 items on the long version of the BSRI. However, in this study the BSRI was given in its original form in order to have the most number of items for each of the scales. This was done in order to provide a wider domain of items corresponding to masculinity and femininity with a cross cultural sample. The results will be analyzed according to the original version. Correlation coefficients between the original (long), version and the short version for the scales of masculinity and femininity will also be obtained.

Wilson and Cook (1984) provided coefficients of $M_s = .88$ and $M_f = .78$ for the scales of masculinity and femininity, respectively, for the estimates of their internal consistency. Bem (1974) provides test-retest reliability statistics of .90 for the Bem Sex Role Inventory (4 weeks). These statistics for the internal reliability and test-retest reliability may be considered satisfactory. Bem (1981a) also states that there is "a growing literature by other investigators that supports the validity of the

BSRI by establishing conceptually relevant behavioral correlates."
(p. 16)

Cawte Acculturative Stress Scale:

The Cawte Acculturative Stress Scale (CASS) consists of twenty questions related to general health. Cawte (1972) selected these twenty items from the larger Cornell Medical Index (CMI) of Brodman, Erdman, Lorge, and Gershenson and Wolff (1952) on the basis of clinical and statistical rationalization for their ability to assess acculturative stress among Aboriginal populations in Australia. Of these 20 items, the first 10 questions deal with the assessment of psychosomatic symptomology; 6 items (11, 12, 15, 16, 19, & 20) deal with anxiety; 2 items (13 & 14) deal with depression; and the remaining 2 items (17 & 18) deal with irritability. A simple "yes" or "no" response is required for each of these questions which gives a combined score from 0 to 20. Higher scores indicate higher level of reported acculturative stress.

These items are intended to pick up mental health problems in individuals and cultures where mental health problems may be somaticized. Berry, Kim, Minde, and Mok (1987) specifically state that the Cawte Acculturate Stress Scale is a good indicator of acculturative stress, having been used in over 30 studies of acculturation and acculturative stress. Its internal consistency tends to be rather high. Berry et al. (1987) report Cronbach's alpha of .70 to .80. They also report that this index of acculturative stress has "correlated consistently with the number ($r=.42$), frequency ($r=.51$), and severity ($r=.49$) of physical health

problems. Moreover, subjective reports of general health status also correlated significantly with the Cawte stress measure ($r=.37$)" (p.508).

DELIMITATIONS AND LIMITATIONS

The criteria which specify the population and the sample for this study are restrictive of to whom the results may be generalized. The findings of this investigation may be generalized to first and second generation Sikh adolescents in grades 10, 11, and 12, in an urban area in British Columbia. It is also possible that the adolescents sampled in this research are part of a specific socio-economic or demographic status. Furthermore, the validation of the above instruments has not been specifically studied with the Sikhs, although they are the best instruments available for this study at the present time.

HYPOTHESES

The following relationships are hypothesized in this study:

- 1) an inverse relationship between the degree of acculturative stress and the varieties of acculturative attitudes as follows: integration having the lowest stress; marginalization having the highest stress; and the other two modes falling somewhere in the middle);
- 2) a direct relationship between psychological androgyny and degree of acculturation or acculturative attitudes as follows: subjects in the integrated mode being associated with androgynous orientation; marginalization being associated with the undifferentiated orientation; and the

remaining two acculturative attitudes, assimilation and separation, being associated with masculinity and femininity;

- 3) an inverse relationship between psychological androgyny and the degree of acculturative stress;
- 4) sex differences between males and females with respect to the above;
- 5) differences in the above with respect to country of birth.

STATISTICAL ANALYSIS

Correlational analyses and multiple regression analyses were used to assess the nature of the relationships among acculturative attitudes, acculturative stress and psychological androgyny (sex typing). As well, a model of backward regression was carried out to determine the hierarchy of these variables and to determine the best predictors of acculturative stress. A one-way ANalysis Of VAriance (ANOVA) was used to determine any group differences in the acculturative stress and acculturative attitudes scores based on sex typing (psychological androgyny). A $p < .05$ level was used to test the significance of F-values and reject the null hypothesis unless otherwise specified. The above statistical analyses were performed with the use of SPSS-X and MINITAB.

CHAPTER IV

RESULTS

The main objective of this research study was to examine possible relationships that may occur among the following constructs: acculturative attitudes, acculturative stress, and sex typing or psychological androgyny among Sikh male and female adolescents. In this chapter, I will provide and examine the results of this study in detail.

As stated in the previous chapter, the participants for this study consisted of students from three high schools from Surrey, British Columbia. Sixty-nine per cent of the participants were second generation or Canadian born subjects, while 25% of the participants were first generation or Indian born subjects. The remaining 6% were first generation subjects who were born in countries other than India. The analysis of the results takes the above into account. Firstly, the data is analyzed with all the subjects combined. Secondly, the data is analyzed with the subjects separated according to their country of birth, in order to provide a comparative analysis for first and second generation subjects, where the N's justify such an analysis. Finally, the data is analyzed for the above subjects separated by sex where the N's justify such an analysis. As a note of caution, one must be careful in the interpretation of the results and statistics for the Indian born subjects, as the combined Indian born sample is rather small,

it included only 13 males and 16 females for a total of 29 indian born subjects.

In this study, three instruments, one for each of acculturative attitudes, acculturative stress, and sex typing, were administered to 114 Sikh male and female adolescents in grades 9, 10, 11, and 12. A background questionnaire was also administered in order to collect demographic information about the subjects. This information, along with the results, is presented in this chapter.

The purpose of this study was to provide normative data for first and second generation Sikh male and female adolescents as well as to answer the following questions:

1. Is there a relationship between acculturative stress and the different acculturative attitudes among male and female Sikh adolescents in grades 9, 10, 11, and 12?
2. Is there a relationship between acculturative stress and sex typing among male and female Sikh adolescents in grades 9, 10, 11, and 12?
3. Is there a relationship between acculturative attitudes and sex typing among male and female Sikh adolescents in grades 9, 10, 11, and 12?
4. Are there any differences in the above results between first and second generation male and female Sikh adolescents in grades 9, 10, 11, and 12?
5. Are there gender differences in the levels of acculturative stress, acculturative attitudes, and sex typing among male and female first and second generation Sikh adolescents in grades 9, 10, 11, and 12?

This chapter is divided into six sections, entitled: characteristics of the sample, correlational analysis, regression analysis, analysis of variance, secondary questions, and summary or principal research findings respectively. These sections are further subdivided into sub-sections where appropriate. (NOTE: R-SQ VALUES IN THE REGRESSION SECTION & TABLES ARE PERCENTAGE (%) VALUES.

CHARACTERISTICS OF THE SAMPLE

In this section, demographic information on the subjects is presented as a whole as well as with respect to their country of birth. Secondly, statistical means and standard deviations of all the variables are presented along with medians for the appropriated variables.

Demographic Data:

A demographic questionnaire entitled "Background Questionnaire" was administered to all of the subjects, along with the three instruments, in order to collect demographic information about the participants. Table 1 (a) and 1 (b) present this information for the total subject pool, as well as on the basis of the country of birth. It further divides this information for each sex in its respective columns. There were a total of 56 males and 58 females who participated in this research, for a combined total of 114. Of these 114, there 39 males and 40 females who were second generation or Canadian born, for a combined total of 79. There were also 13 males and 16 females who were first generation or Indian born, for a combined total of 29.

Table 1 (A)Demographic Data including Gender, Grade, Age, Country of Birth, and School Attended

Category	Description	Number of Subjects								
		All Subjects			Canadian Born			Indian Born		
		M	F	T	M	F	T	M	F	T
Gender		56	58	114	39	40	79	13	16	29
Age	14	4	3	7	4	2	6	0	1	1
	15	8	11	19	8	9	17	0	2	2
	16	15	14	29	9	11	20	4	2	6
	17	15	18	33	12	12	24	3	5	8
	18	11	8	19	5	5	10	5	3	8
	19	2	2	4	0	1	1	1	1	2
	21	0	1	1	0	0	0	0	1	1
	unknown	1	1	2	1	0	1	0	1	1
Grade	9	9	6	15	8	4	12	1	2	3
	10	9	15	24	6	11	17	2	4	6
	11	18	17	35	11	11	22	6	4	10
	12	15	18	33	10	12	22	4	6	10
	unknown	5	2	7	4	2	6	0	0	0
Country of Birth	Canada	39	40	79	-	-	-	-	-	-
	India	13	16	29	-	-	-	-	-	-
	Other	4	2	6	-	-	-	-	-	-
School Attended	A	18	8	26	16	0	16	1	0	1
	B	12	12	24	7	0	7	3	0	3
	C	26	38	64	16	40	56	9	16	25

Note: M=Males; F=Females; and T=Total

Table 1 (B)										
Demographic Data including Ethnic Self Label, Religious Preference, and Punjabi Language Fluency										
Number of Subjects										
Category	Description	All Subjects			Canadian Born			Indian Born		
		M	F	T	M	F	T	M	F	T
Ethnic Self Label	Sikh	17	15	32	8	7	15	6	7	13
	Canadian Sikh	20	17	37	15	16	31	4	0	4
	Canadian	3	4	7	3	3	6	0	1	1
	East-Indian	7	5	12	6	3	9	1	2	3
	Indo-Canadian	8	14	22	6	8	14	2	6	8
	Unknown	1	3	4	1	3	4	0	0	0
Religious Preference	Sikhism	35	41	76	26	28	54	7	12	19
	Punjabi	2	2	4	2	2	4	0	0	0
	Christian	0	2	2	0	1	1	0	1	1
	None	19	13	32	11	9	20	4	3	9
Punjabi Language Fluency	Speak	42	40	82	32	32	64	7	6	13
	Speak-Write	10	16	26	4	6	10	6	10	16
	Neither	4	2	6	3	2	5	0	0	0

Note: M=Males; F=Females; and T=Total.

Indian born. The remainder 6, 4 males and 2 females, were born in countries other than Canada or India and they were only included in the analysis which dealt with all of the subjects combined. All subjects in grades 9 to 12 ranged in age from 14 to 21.

Most of the subjects chose to identify themselves as either Sikh (32/114) or Canadian Sikh (37/114), while there were also a substantial number who chose Indo Canadian (22/114) on a multiple choice item about the ethnic self label. Of the Canadian born subjects, most of them chose to identify themselves as Canadian Sikh (31/79), as opposed to Sikh (15/79) and Indo Canadian (14/79). Of the Indian born subjects, most of them chose to identify themselves as Sikh (13/29), as opposed to Canadian Sikh (4/29) and Indo Canadian (8/29). There do not appear to be any gender differences in identifying oneself on an ethnic label.

On a multiple choice item with regards to religious preference, a majority of the subjects chose Sikhism (76/114), while a substantial number chose "none" (32/114) to indicate no religious preference. The same is true for the subjects choosing Sikhism divided on the basis of country of birth: Canadian born (54/79), and Indian born (19/29); and of those choosing "none", Canadian born (20/79), and Indian born (9/29). Again there does not appear to be any marked or substantial difference between the genders in their choice of religious preference. When one compares the data for the religious preference and the ethnic label, it does seem to indicate that the subjects do differentiate between an ethnic label and a religious preference.

In response to a multiple choice item regarding their ability to speak, or speak and write, Punjabi, it was found that most of

the subjects could speak the Punjabi language, 82/114 for all subjects combined, 64/79 for the Canadian born subjects, and 13/29 for the Indian born subjects. In addition to this, there were an additional number of subjects who could speak and write the Punjabi language, as follows: 26/114 for all subjects combined, 10/79 for Canadian born subjects, and 16/29 Indian born subjects. This indicates that a large majority of the subjects have the ability to speak in their mother tongue in addition to English, and may possibly point to the role that their mother tongue may play in their cultural or family life.

Normative Data:

The Cawte Acculturative Stress Scale (CASS), the Acculturative Attitudes Survey (AAS), and the Bem Sex Role Inventory (BSRI) were administered to 114 students. The means, standard deviations and the medians for the sub-scales scores for these three instruments are presented in Tables 2 and 3. The above statistics are presented for the three groups: all subjects combined, Canadian born subjects, Indian born subjects, and males and females under each of the categories, respectively.

The means for the acculturative stress for all subjects combined, Canadian born subjects, and Indian born subjects are 5.75, 6.30, and 4.37, respectively. These means for the subjects in this study indicate a high level of psychosomatic symptoms in Sikh adolescents (Sidhu, 1990; Tonks, 1990). This also indicates a difference in the mean for acculturative stress for Canadian

Table 2

Means and Standard Deviations for Acculturative Attitudes Survey (AAS), Cawte Acculturative Stress Scale (CASS), and Bem Sex Role Inventory (BSRI)

Scale	Variables	All Subjects		Canadian Born Subj.		Indian Born Subjects	
		Mean	SD	Mean	SD	Mean	SD
AAS	Integration [I] (C)	3.77	0.50	3.81	0.51	3.66	0.46
	(M)	3.71	0.50	3.73	0.56	3.68	0.41
	(F)	3.83	0.49	3.88	0.46	3.65	0.52
	Assimilation [A] (C)	2.89	0.33	2.88	0.34	2.90	0.32
	(M)	2.93	0.31	2.89	0.31	3.00	0.31
	(F)	2.86	0.34	2.88	0.36	2.81	0.30
	Separation [S] (C)	3.06	0.38	3.01	0.39	3.16	0.32
	(M)	3.06	0.39	3.07	0.39	3.00	0.32
	(F)	3.05	0.37	2.95	0.37	3.29	0.26
	Marginalization [M] (C)	2.75	0.30	2.74	0.33	2.77	0.24
	(M)	2.70	0.28	2.70	0.31	2.72	0.22
	(F)	2.79	0.31	2.78	0.34	2.81	0.26
CASS	Acculturative Stress [As] (C)	5.75	3.67	6.30	3.63	4.37	3.32
	(M)	5.11	3.37	5.77	3.53	3.85	2.08
	(F)	6.39	3.87	6.83	3.70	4.86	4.19
BSRI	Femininity [Fm] (C)	4.78	0.77	4.80	0.79	4.72	0.72
	(M)	4.57	0.73	4.59	0.76	4.45	0.59
	(F)	4.98	0.76	4.99	0.78	4.94	0.77
	Masculinity [Ms] (C)	4.83	0.91	4.95	0.90	4.44	0.86
	(M)	5.04	0.81	5.17	0.76	4.53	0.78
	(F)	4.63	0.96	4.74	0.97	4.35	0.94

(C) Combined males and females; (M) Males; and (F) Females.

Table 3

**Median Scores for Acculturative Attitudes Survey (AAS),
Bem Sex Role Inventory (BSRI), and
Cawte Acculturative Stress Scale (CASS)**

Scale	Variable		All	Cndn Born	Indn Born
			Median	Median	Median
AAS	Integration [I]	(C)	3.80	3.85	3.65
		(M)	3.73	3.80	3.55
		(F)	3.85	3.88	3.65
	Assimilation [A]	(C)	2.90	2.95	2.85
		(M)	2.95	2.90	2.95
		(F)	2.88	2.95	2.85
	Separation [S]	(C)	3.10	3.00	3.25
		(M)	3.10	3.10	2.95
		(F)	3.08	2.95	3.28
	Marginalization [M]	(C)	2.75	2.75	2.75
		(M)	2.75	2.75	2.75
		(F)	2.80	2.85	2.78
BSRI	Femininity [Fm]	(C)	4.80	4.80	4.60
		(M)	4.64	4.70	4.35
		(F)	5.00	5.05	5.00
	Masculinity [Ms]	(C)	4.75	5.00	4.30
		(M)	5.00	5.10	4.25
		(F)	4.45	4.60	4.35
CASS	Acculturative Stress [As]	(C)	6.00	6.00	3.00
		(M)	5.00	6.00	4.00
		(F)	6.00	6.00	3.00

Note: (C) Combined males and females; (M) Males; and (F) Females.

born and Indian born subjects. Comparison of the means for the sub-scales of the Acculturative Attitudes Survey (AAS) from this study with the norms presented for Indian students by Tonks (1990), shows that they are similar. Similarly, the comparisons of the means for the sub-scales of the Bem Sex Role Inventory from this study, with the norms presented by Bem (1981a) for adolescents and for the Stanford normative sample, appear to be similar.

The medians for the sub-scales of Acculturative Attitudes Survey and Bem Sex Role Inventory are presented in Table 3. The above statistics are presented for the three groups: all subjects combined, Canadian born subjects, and Indian born subjects, as well as for males and females under each of the groups, respectively. The comparisons of the means for the sub-scales of the Bem Sex Role Inventory from this study with the norms presented by Bem (1981a) for adolescents and for the Stanford normative sample, appear to be similar. These medians are used to categorize individuals into different classifications such as masculine, feminine, androgynous, and undifferentiated on the Bem Sex Role Inventory, (Bem, 1981a), and similarly on the Acculturative Attitudes Survey.

CORRELATIONAL ANALYSIS

One of the primary objectives of the study was to examine any possible correlations between acculturative stress, acculturative attitudes, and sex typing as well as to investigate possible interscale correlations. In this section I will present and analyze the correlation coefficients obtained for acculturative stress, integration, assimilation, separation, marginalization, femininity,

and masculinity as well as the interscale correlations for each of the sub-scales in the respective instruments.

Acculturative stress, acculturative attitudes, and sex typing:

Table 4 presents intercorrelations between the scores on acculturative stress, acculturative attitudes, and sex typing for all subjects combined, Canadian born subjects, and Indian born subjects. It was found that marginalization has a significant positive correlation, ($r=.23$), with acculturative stress. However, in the Canadian born subjects, it was found that marginalization has a significant positive correlation, ($r=.25$), and masculinity has a significant negative correlation, ($r=-.29$), with acculturative stress. For the Indian born sample, none of the variables had any significant correlation with acculturative stress.

Table 5 presents the intercorrelations between the scores on acculturative stress, acculturative attitudes, and sex typing for all male subjects combined, Canadian born male subjects, and Indian born male subjects. None of the variables were found to have any significant correlation with acculturative stress for any of the subject groups.

Table 6 presents the above intercorrelations for all female subjects combined, Canadian born female subjects, and Indian born female subjects. It was found that none of the variables have any significant correlation with acculturative stress for any of the subject groups, with the exception of integration for Indian born

Table 4

Intercorrelations of Acculturative Stress, Acculturative Attitudes Survey, and the Bem Sex Role Inventory for all subjects combined (All), Canadian born subjects (Cnd), and Indian born subjects (Ind)

Subjects	As	I	A	S	M	Fm
Integration (I)						
All	.17					
Cnd	.06					
Ind	.34					
Assimilation (A)						
All	-.12	-.31*				
Cnd	-.07	-.38*				
Ind	-.23	-.07				
Separation (S)						
All	-.06	.03	-.47*			
Cnd	.02	.16	-.58*			
Ind	-.06	-.41*	-.21			
Marginalization (M)						
All	.23*	-.23*	.11	-.12		
Cnd	.25*	-.26*	.20	-.15		
Ind	.21	-.09	-.31	.02		
Femininity (Fm)						
All	.10	.17	-.15	.07	-.12	
Cnd	.05	.19	-.10	.08	-.18	
Ind	.33	.08	-.32	.02	.19	
Masculinity (Ms)						
All	-.17	-.02	-.13	.02	-.10	.28*
Cnd	-.29*	-.07	-.02	.09	-.13	.18
Ind	-.04	.05	-.46*	-.25	.17	.56*

Note: (All)=all subjects combined; (Cnd)=Canadian born subjects; (Ind)=Indian born subjects.

*p < .05, two-tailed.

Table 5

Intercorrelations of Acculturative Stress, Acculturative Attitudes Survey, and the Bem Sex Role Inventory for all male subjects combined (All), Canadian born males (Cnd), and Indian born males (Ind)

	Males	As	I	A	S	M	Fm
Integration (I)							
All		.05					
Cnd		.06					
Ind		-.01					
Assimilation (A)							
All		-.09	-.38*				
Cnd		-.06	-.51*				
Ind		.16	.20				
Separation (S)							
All		-.08	.24	-.48*			
Cnd		-.05	.33*	-.54*			
Ind		-.16	-.36	-.32			
Marginalization (M)							
All		.18	-.24	.09	-.19		
Cnd		.22	-.21	.23	-.18		
Ind		-.05	-.40	-.63*	-.08		
Femininity (Fm)							
All		.07	.13	-.13	.35*	-.15	
Cnd		.14	.18	-.15	.39*	-.16	
Ind		.11	-.12	.08	.18	.08	
Masculinity (Ms)							
All		-.15	.08	-.31*	.23	-.26	.32*
Cnd		-.29	.05	-.18	.17	-.40*	.26
Ind		.03	.08	-.57*	-.01	.39	.37

Note: (All)=all males combined; (Cnd)=Canadian born males;
(Ind)=Indian born males.

*p < .05, two-tailed.

Table 6

Intercorrelations of Acculturative Stress, Acculturative Attitudes Survey, and the Bem Sex Role Inventory for all female subjects combined (All), Canadian born females (Cnd), and Indian born females (Ind)

	Females	As	I	A	S	M	Fm
Integration (I)							
All		.24					
Cnd		.20					
Ind		.50*					
Assimilation (A)							
All		-.12	-.23				
Cnd		-.08	-.26				
Ind		-.40	-.28				
Separation (S)							
All		-.03	-.18	-.48*			
Cnd		.14	.01	-.63*			
Ind		-.18	-.53*	.16			
Marginalization (M)							
All		.24	-.26	.15	-.06		
Cnd		.26	-.38*	.19	-.08		
Ind		.29	.09	-.03	-.07		
Femininity (Fs)							
All		.05	.15	-.14	-.19	-.18	
Cnd		-.10	.12	-.05	-.13	-.28	
Ind		.39	.20	-.47	-.43	.15	
Masculinity (Ms)							
All		-.11	-.03	-.04	-.16	.08	.39*
Cnd		-.25	-.11	.06	-.03	.09	.26
Ind		.07	.04	-.48	-.43	.08	.79*

Note: (All)=all females combined; (Cnd)=Canadian born females; (Ind)=Indian born females.

*p < .05, two-tailed.

female subjects who have a significant positive correlation, ($r=.50$), with acculturative stress.

Interscale correlations for Acculturative Attitudes Survey:

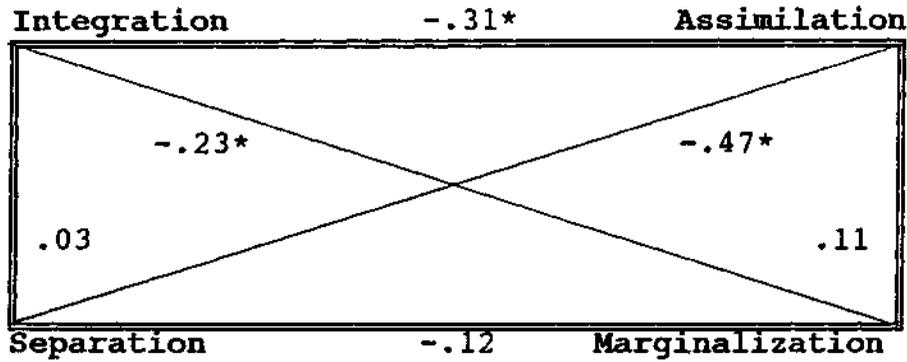
Interscale correlations deal with the question of how the various scales relate to each other and what these relationships say about the model, in this case the model of acculturation proposed by Berry (1984a). Berry (1989) states that:

a general expectation is that scales representing diagonal opposites in the model (Fig.1) should be negatively correlated (Integration-Marginalization; Assimilation-Separation). Such an expectation results from the fact that these diagonal opposites differ in their response ("yes" or "no") to both of two underlying questions of this model. Other relationships are theoretically open, because they share one "yes" or "no" response on one question or the other; that is, empirical relationships could be either positive or negative. For example, Assimilation and Integration might be positively related because of a common concern with positive group relations; or they could be negatively related because of a differing response to the issue of cultural maintenance. The pattern of these interscale relationships will thus indicate whether one or the other of the underlying questions tends to predominate in the concern of a particular sample. (p.197).

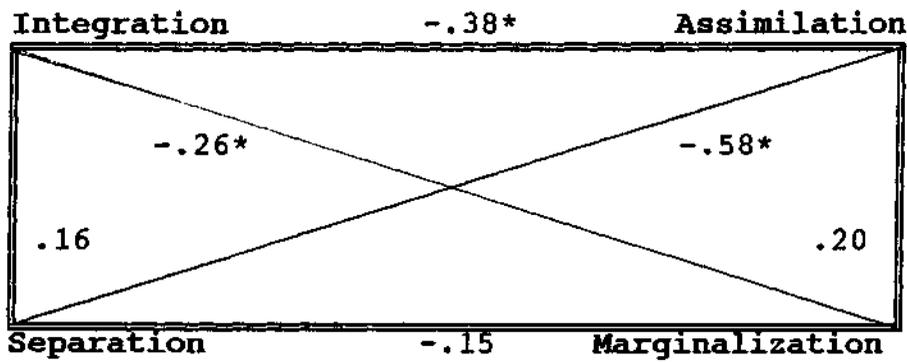
Table 4 and Figure 3 present the inter-correlations for the Acculturative Attitudes Survey for all subjects combined, Canadian born subjects, and Indian born subjects. As stated above, both of the cross diagonals, Integration-Marginalization and Assimilation-Separation, are significantly negative for the all subjects combined group and the Canadian born group. However, in the case of Indian born subjects, the correlations are still negative, although they are not statistically significant. The square perimeter correlations

Figure 3: Intercorrelations for the scales of Acculturative Attitudes Survey, (AAS)

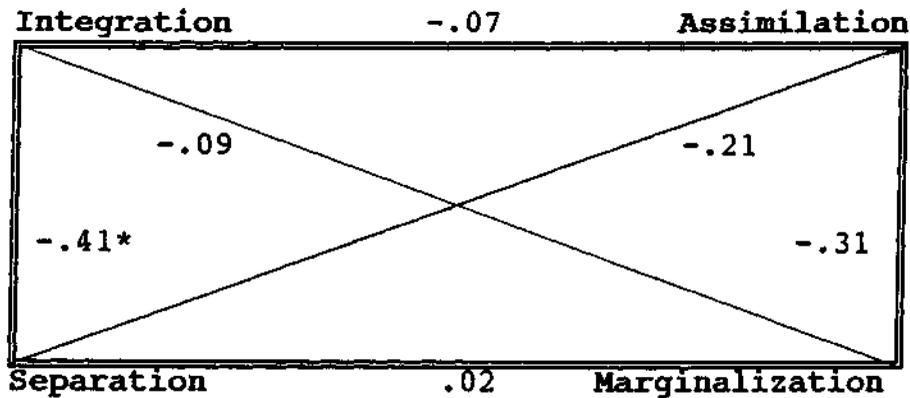
(A) All Subjects Combined:



(B) Canadian Born Subjects:



(C) Indian Born Subjects:



(Integration - Assimilation - Marginalization - Separation) are quite low and statistically not significant, indicating independence of the scales from their neighbours. There are two exceptions to this. First, the correlation between integration and assimilation for all subjects combined and for Canadian born subjects is statistically significant, ($r=-.31$ and $r=-.38$), respectively. Second, the correlation for separation and integration for Indian born subjects is also statistically significant, ($r=-.41$). This may either indicate some interdependence of these scales or confounding of some scale items for the respective scales. Tables 5 and 6 also provide the above information for the above groups separated by gender.

The reliability coefficients for these scales in this study were not calculated as they are beyond the scope of this thesis. However, Tonks (1990) provides reliability coefficients for these scales for the Indo-Canadian normative sample. The reliability coefficients, (Cronbach's alphas), reported are .7039, .6168, .4031, .4903, for integration, assimilation, separation, and marginalization, respectively. The reliability coefficients for three of the four scales are quite low, indicating a diversity of items within each scale. These results are slightly lower than reliabilities for new scales reported by Berry, Kim, Power, Young, and Bujaki (1989). It has been reported by these researchers, however, that refined scales for all four acculturative attitudes can have Cronbach's alphas in the range of .70 to .90.

Interscale correlations for Bem Sex Role Inventory:

Bem (1981a) proposed Masculinity and Femininity as Independent dimensions or scales for the assessment of psychological androgyny and subsequently for categorization in terms of the respective sex typed group. The correlation coefficients presented in Table 4 for masculinity and femininity in this study suggest that these two scales are not necessarily fully independent, as is evident from the significant correlations for all subjects combined, ($r=.28$), and Indian born subjects, ($r=.56$) while the correlation obtained for the Canadian born subjects was not significant, ($r=.18$). The above is especially true for the Indian born subjects where the correlation coefficient value is very high. Similar results were obtained when the above subjects were separated by sex as is evident from Tables 5 and 6.

Acculturative Attitudes and Sex Typing:

Table 4 also provides the correlation values for the Bem Sex Role Inventory and the Acculturative Attitudes Survey scales. The only significant correlation was found between the masculinity and assimilation scale, ($r=-.46$), for the Indian born subjects, such that masculinity was found to be negatively correlated with assimilation.

Tables 5 and 6 also provide correlation values for the above scales with the sexes separated for the above groups. No significant relationships were found between the scales of Bem Sex Role Inventory and the Acculturative Attitudes Survey for any of the female groups. However, in the cases of males, significant relationships were found. Masculinity was found to have a

significant negative correlation with assimilation for all the male subjects combined, ($r=-.31$), and for the Indian born male subjects, ($r=-.57$), as well as having a significantly negative correlation with Marginality for the Canadian born male subjects, ($r=-.40$). Femininity was found to have a significant positive correlation with separation for all male Sikh adolescents, as is evident from Tables 5 and 6.

REGRESSION ANALYSIS:

In this section, I will examine and analyze the results of the regression analysis. Acculturative Stress was regressed on the scales of the Acculturative Attitudes Survey and scales of the Bem Sex Role Inventory separately, as well as being regressed on the all of the scales combined. Furthermore, a model of the regression of acculturative stress on the scales of the Acculturative Attitudes Survey and the Bem Sex Role Inventory was constructed with the use of a backward stepwise regression, in order to yield those variables in the final step that most significantly accounted for the r-square. The results of these analyses are presented in this section. (PLEASE NOTE THAT R-SQ VALUES IN THIS SECTION AND THE FOLLOWING TABLES ARE PERCENTAGE (%) VALUES).

Acculturative Stress and Acculturative Attitudes:

In this section the results of the regression of acculturative stress (As) on the scores for integration (I), assimilation (A), separation (S), and marginalization (M) and the results of the final step in the backward regression are presented. In the case of all the subjects combined, the results of the scores of the

acculturative attitudes resulted in an R square of 11.91 and an F ratio of 3.62, $df=4, 107$ that is highly significant at the .01 level as presented in Table 7. The two sub-scales that contributed significantly to the relationship are integration ($\beta=.19$) and marginalization ($\beta=.28$). The final step in the backward regression yielded only two variables which were integration ($\beta=.23$) and marginalization ($\beta=.29$) for a combined R-square of 10.54, with an F-ratio of 6.42, $df=2, 109$ which was significant at the .01 level.

In the case of the Canadian born subjects, the results of the scores of the acculturative attitudes resulted in an insignificant R square of 8.94 and an F ratio of 1.82, $df=4, 74$ at the .05 level. However, marginalization contributed significantly to the relationship, ($\beta=.30$). The final step in the backward regression yielded only marginalization, ($\beta=.25$), for an R square of 6.40 and an F ratio of 5.26, $df=1, 77$ which was significant at the .05 level. In the case of the Indian born subjects, the regression or the backward regression did not yield any significant results at the .05 level.

Tables 8 and 9 present the above regression analysis for the above subjects separated by gender, that is on all males combined and all Canadian born males, as well as all females combined and all Canadian born females only, respectively. For all males combined and all Canadian born males and females, the regression or

Table 7

Regression and Final step of the Backward Regression of
Acculturative Stress on the scales of
Acculturative Attitudes Survey

Indp Varb	All Subjects			Canadian Born			Indian Born		
	B	R sq	F	B	R sq	F	B	R sq	F
Intg	.19*	11.91**	3.82*	.11	8.94	.77	.37	19.54	3.10
Assm	-.14		1.57	-.10		.43	-.16		.52
Sepr	.10		.82	-.01		.00	.03		.02
Marg	.28*		8.78*	.30*		6.68*	.15		.51
Final Step of the Backward Regression:									
Intg	.23	10.54**	6.13		6.40*				
Marg	.29		9.50	.25*		5.27*			

Note: B= Beta weight.
*p < .05; ** p < .01.

Table 8

**Regression and Final step of the Backward Regression of
Acculturative Stress on the scales of
Acculturative Attitudes Survey for males**

Indep Varb	All Male Subjects			Canadian Born Males		
	B	R sq	F	B	R sq	F
Integ	.07	6.09	.23	.08	7.03	.18
Assim	-.14		.75	-.13		.33
Separ	-.13		.67	-.10		.27
Margn	.19		1.78	.24		2.0

Note= Beta weight.

*p < .05.

Table 9
Regression and Final step of the Backward Regression of
Acculturative Stress on the scales of
Acculturative Attitudes Survey for females

Indep Varb	All Female Subjects			Canadian Born Females		
	B	R sq	F	B	R sq	F
Integ	.30*	16.33*	4.36*	.14	11.05	.63
Assim	-.10		.43	-.01		.00
Separ	-.01		.00	.16		.59
Margn	.33*		6.14*	.33		3.58
Final Step of the Backward Regression:						
Integ	.32*	15.39**	5.91*			
Margn	.32*		6.13*			

Note: B= Beta weight.
 *p < .05; **p < .01.

the backward regression did not yield any significant results at the .05 level. However, in the case of the all females combined group, regression of acculturative stress on the scales of the Acculturative Attitudes Survey, resulted in an R square of 16.33 and an F ratio of 2.49, $df=4, 51$ that is highly significant at the .05 level. The two sub-scales that contributed significantly to the relationship are integration, ($\beta=.30$), and marginalization, ($b=.33$). However, the final step in the backward regression yielded the following two variables, integration and assimilation with beta values of .32 and .32, respectively and an R square of 15.39 and an F value of 4.82, $df=2, 53$ which is significant at the .01 level.

The residuals and fitted scores were plotted for the above regressions. Ninety-five percent of the data lie within ± 2.00 standard deviations. Further analysis showed that all assumptions about normality, homogeneity of the sample and independence about the mean were satisfied as there is no apparent pattern to the data. Therefore, the F test scores are valid.

Furthermore, Acculturative stress was plotted against the scales of the Acculturative Attitudes Survey to investigate any possible significant curvilinear relationship, unless such a significant relationship was already found from the correlational and regression analysis. No significant curvilinear relationship was found.

Acculturative Stress and Sex Typing:

In this section the results of the regression of acculturative stress (As) on the scores for the scales of femininity (Fm), and

masculinity (Ms), for the Bem Sex Role Inventory and the results of the final step in the backward regression are presented.

In the case of the Canadian born subjects, the regression on the scores of the acculturative attitudes resulted in an R square of 9.39 and an F ratio of 3.83, $df=2, 74$ which was significant beyond the .05 level as presented in Table 10. Masculinity contributed significantly to the relationship, ($\beta=-.31$). The final step in the backward regression yielded only masculinity, ($\beta=-.29$), for an R square of 8.38 and an F ratio of 6.86, $df=1, 75$ which was significant at the .01 level. However, for all the subjects combined and the Indian born subjects, the regression or the backward regression did not yield any significant results at the .05 level.

Tables 11 and 12 present the above regression analysis for the above subjects separated by gender, that is for all males combined and all Canadian born males as well as for all females combined and all Canadian born females only, respectively. The regression and the backward regression did not yield any significant results at the .05 level for the subjects separated by sex.

The residuals and fitted scores were plotted for the above regressions. Ninety-five percent of the data lie within ± 2.00 standard deviations. Further analysis showed that all assumptions about normality, homogeneity of the sample and independence about the mean were satisfied as there is no apparent pattern to the data. Therefore, the F test scores are valid.

Furthermore, Acculturative stress was plotted against the scales of and the Bem Sex Role Inventory to investigate any

Table 10

Regression and Final step of the Backward Regression of
Acculturative Stress on the scales of
Bem Sex Role Inventory

Indp Varb	All Subjects			Canadian Born			Indian Born		
	B	R sq	F	B	R sq	F	B	R sq	F
Femn	.16	5.07	2.56	.10	9.39*	.83	.43	13.62	3.59
Masc	-.21		4.49*	-.31		7.49*	-.18		.65
Final Step of the Backward Regression:									
Masc	-.17	2.78	3.06	-.29	8.38**	6.86	.33	11.18	3.02

Note: B= Beta.

*p < .05; **p < .01.

Table 11

Regression and Final step of the Backward Regression of
Acculturative Stress on the scales of
Bem Sex Role Inventory for males

Indep Varb	All Male Subjects			Canadian Born Males		
	B	R sq	F	B	R sq	F
Femn	.13	3.94	.86	.23	13.04	1.91
Masc	-.19		1.81	-.34*		4.33*
Final Step of the Backward Regression:						
Masc				-.28	8.16	3.11

Note: B= Beta.

*p < .05.

Table 12

Regression and Final step of the Backward Regression of
Acculturative Stress on the scales of
Bem Sex Role Inventory for females

Indep Varb	All Female Subjects			Canadian Born Females		
	B	R sq	F	B	R sq	F
Femn	.10	2.20	.48	-.04	6.44	.06
Masc	-.15		1.05	-.24		2.12

Note: B= Beta.

*p < .05.

possible significant curvilinear relationship unless such a significant relationship was already found from the correlational and regression analysis. No significant curvilinear relationship was found.

Acculturative Stress, Acculturative Attitudes, and Sex Typing:

In this section the results of the regression of acculturative stress (As) on the scores for the scales of integration (I), assimilation (A), separation (S), and marginalization as well as femininity (Fm), and masculinity (Ms), on the Acculturative Attitudes Survey and the Bem Sex Role Inventory and the results of the final step in the backward regression, are presented.

In the case of all the subjects combined, the results of the scores of the acculturative attitudes resulted in an R square of 15.18 and an F ratio of 3.04, $df=6, 102$ that is highly significant at the .01 level, as presented in Table 13. The two sub-scales that contributed significantly to the relationship are marginalization, ($\beta=.27$), and masculinity, ($\beta=-.19$). The final step in the backward regression yielded only two variables which are integration ($\beta=.22$) and marginalization ($\beta=.29$) for a combined R-square of 10.00, with an F-ratio of 5.89, $df=2, 106$ which was significant at the .01 level.

In the case of the Canadian born subjects, the results of the scores of the acculturative attitudes resulted in an R square of 16.12 and an F ratio of 2.24, $df=6,70$ at the .05 level. As in the previous case, marginalization, ($\beta=.27$), and masculinity, ($\beta=.28$), contributed significantly to the relationship,

(beta=.30). The final step in the backward regression, however, yielded only marginalization, (beta=.21), and masculinity, (beta=-.26), for an R square of 12.87 and an F ratio of 5.46, $df=2, 74$ which was significant at the .01 level. In the case of the Indian born subjects, the regression or the backward regression did not yield any significant results at the .05 level.

Tables 13, 14 and 15 present the above regression analysis for the above subjects separated by gender, that is on all males combined and all Canadian born males as well as all females combined and all Canadian born females only, respectively. For all males combined and Canadian born males and Canadian born females, the regression or the backward regression did not yield any significant results at the .05 level. However, in the case of all females combined group, regression of acculturative stress on the scales of the Acculturative Attitudes Survey and the Bem Sex Role Inventory initially resulted in an R square of 19.78 and an F ratio of 1.97, $df=6, 48$ that is not significant at the .05 level. However, the final step in the backward regression yielded the above two variables, integration and assimilation with beta values of .33 and .33, respectively and an R square of 16.06 and an F value of 4.98, $df=2, 52$ which is significant at the .01 level.

The residuals and fitted scores were plotted for the above regressions. Ninety-five percent of the data lie within ± 2.00 standard deviations. Further analysis showed that all assumptions about normality, homogeneity of the sample and independence about the mean were satisfied as there is no apparent pattern to the data. Therefore, the F test scores are valid.

Table 13

Regression and Final step of the Backward Regression of
Acculturative Stress on the scales of
Acculturative Attitudes Survey, and
Bem Sex Role Inventory

Indp Varb	All Subjects			Canadian Born			Indian Born		
	B	R sq	F	B	R sq	F	B	R sq	F
Intg	.15	15.18**	2.30	-.04	16.12*	.09	.31	32.17	2.15
Assm	-.14		1.48	-.07		.23	-.17		.43
Sep	-.09		.80	.05		.13	-.12		.25
Marg	.27*		8.03*	.27*		5.20*	.14		.38
Femn	.15		2.35	.13		1.24	.42		3.23
Masc	-.19*		3.84*	-.28*		6.12*	-.29		1.22
Final Step of the Backward Regression:									
Intg	.22*	10.00**	5.42*				.36	24.12	3.92
Marg	.29*		9.03*	.21*	12.87**	3.81*			
Femn							.33		3.40
Masc				-.26*		5.69*			

Note: B= Beta.
*p < .05; **p < .01.

Table 14

**Regression and Final step of the Backward Regression of
Acculturative Stress on the scales of
Acculturative Attitudes Survey, and
Bem Sex Role Inventory for males**

Indp Varb	All Male Subjects			Canadian Born Males		
	B	R sq	F	B	R sq	F
Intg	-.00	8.61	.00	-.02	15.79	.01
Assm	-.19		1.16	-.16		.48
Sep	-.14		.69	-.12		.31
Marg	.13		.76	.13		.47
Femf	.18		1.35	.27		2.02
Masc	-.20		1.59	-.31		2.67
Final Step of the Backward Regression:						
Masc				-.29	8.16	3.11

Note: B= Beta.

*p < .05.

Table 15

**Regression and Final step of the Backward Regression of
Acculturative Stress on the scales of
Acculturative Attitudes Survey, and
Bem Sex Role Inventory for females**

Indp Varb	All Female Subjects			Canadian Born Females		
	B	R sq	F	B	R sq	F
Intg	.29*	19.78	3.90*	.12	18.57	.47
Assm	-.09		.31	.02		.01
Sep	-.02		.02	.18		.75
Marg	.37*		7.23*	.37*		4.25*
Femn	.13		.77	.09		.24
Masc	-.18		1.61	-.29		3.04
Final Step of the Backward Regression:						
Intg	.33*	16.06**	6.16*			
Marg	.33*		6.39*	-.28	14.32	3.47
Masc				.28		3.30

Note: B= Beta.

*p < .05; **p < .01.

Furthermore, Acculturative stress was plotted against the scales of the Acculturative Attitudes Survey and the Bem Sex Role Inventory to investigate any possible significant curvilinear relationship unless such a significant relationship was already found from the correlational and regression analysis. No significant curvilinear relationship was found.

ANALYSIS OF VARIANCE:

Analysis of variance with respect to the country of birth:

The fourth question in this study addressed whether there are any differences in the above results between first and second generation male and female adolescents, that is between Indian born subjects and Canadian born subjects, in grades 9, 10, 11, 12. Most of the results pertaining to this query have already been presented above. In addition to the above, a one way ANalysis Of Variance (ANOVA) was conducted to investigate if there are any significant differences between Canadian born subjects and Indian born subjects for their mean scores on acculturative stress, integration, assimilation, separation, marginalization, masculinity, and femininity. Table 16 presents the results of this analysis. It was found that the Canadian born subjects have a significantly higher level of acculturative stress than the Indian born subjects. No other significant differences were found for the mean scores on the other variables for these two groups.

Analysis of Variance with respect to Gender:

One of the purposes of this study was to examine if there are any gender differences in the above results for Sikh adolescents

Table 16
Analysis of Variance (ANOVA)
for subjects grouped
with respect to the
Country of Birth

Indep Variab	Canadian Born Subjects		Indian Born Subjects	
	Mean	SD	Mean	SD
Intg	3.81	.52	3.67	.47
Assm	2.88	.34	2.91	.31
Sep	3.00	.38	3.15	.31
Marg	2.74	.33	2.78	.24
Accul Stress	6.36*	3.62	4.27*	3.34
Femn	4.80	.79	4.72	.72
Masc	4.95	.90	4.44	.86

*p < .05.

for the mean scores on the scales of Acculturative Stress, integration, assimilation, separation, marginalization, masculinity, and femininity. A one way ANOVA was carried out to investigate this relationship for all the subjects combined and for Canadian born subjects separated by sex. Table 17 presents the results of these analyses. It was found that the Canadian born females have a significantly higher femininity score than the Canadian born males, while their masculinity score was significantly lower than the masculinity score for Canadian born males. Similar results were obtained for all the subjects separated by sex. This analysis was not feasible for Indian born subjects due to insufficient N's.

Acculturative Stress, Acculturative Attitudes, and Sex Typing:

Bem's, (1981a), postulation of psychological androgyny and the Bem Sex Role Inventory

has two features that distinguish it from most masculinity-femininity conceptualizations and scales. Most important, the BSRI treats femininity and masculinity as two Independent dimensions rather than as two ends of a single dimension, thereby enabling a person to indicate whether she or he is high on both dimension ("androgynous"), low on both dimensions ("undifferentiated"), or high on one dimension but low on the other (either "feminine" or "masculine"), based on their median score on the scales for masculinity and femininity. (p.4)

As already mentioned before, Bem, Martyna, and Watson (1976) further state that the,

concept of psychological androgyny implies that it is possible for an individual to be both masculine and feminine, both instrumental and expressive, both agentic and communal, depending upon the situational appropriateness of these various modalities; and it further implies that an individual may even blend these complementary modalities into a single act... (p. 1016)

Table 17
Analysis of Variance (ANOVA)
for subjects grouped
with respect to Gender

Independent Variable	Males		Females	
	Mean	SD	Mean	SD
Intg	(All) 3.71	0.50	3.83	0.49
	(Cnd) 3.73	0.56	3.88	0.46
Assm	(All) 2.93	0.31	2.86	0.34
	(Cnd) 2.89	0.31	2.88	0.36
Sepr	(All) 3.06	0.39	3.05	0.37
	(Cnd) 3.07	0.39	2.95	0.37
Marg	(All) 2.70	0.28	2.79	0.31
	(Cnd) 2.70	0.31	2.78	0.34
Accul	(All) 5.11	3.37	6.39	3.87
Stress	(Cnd) 5.77	3.53	6.83	3.70
Femn	(All) 4.57*	0.73	4.98*	0.76
	(Cnd) 4.59*	0.76	4.99*	0.78
Masc	(All) 5.04*	0.81	4.63*	0.96
	(Cnd) 5.17*	0.76	4.74*	0.97

Note: (All) All subjects combined;
(Cnd) Canadian born Subjects.

*p < .05.

The subjects for this study were categorized in to the above four groups, Masculine, Feminine, Androgynous and Undifferentiated according to Bem's model of sex typing. Then a one way ANOVA was carried out to investigate any significant differences among the above four groups for their scores on acculturative stress, integration, assimilation, separation, and marginalization. The results of these analyses are presented in Table 18 for all the subjects combined and the Canadian born subjects.

It was found that the four groups differed significantly on their mean score for acculturative stress in the case of all subjects combined. The 95% confidence interval obtained through Minitab as a result of the above analysis indicates that the mean scores on acculturative stress for Feminine group is significantly higher than for any of the other three sex typed groups in the case of all subjects combined.

Table 18

Analysis of Variance (ANOVA)
for subjects grouped according to the
Bem Sex Role Inventory

Indep Variab	Masculine		Feminine		Androgynous		Undifferentiated	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Intg (All)	3.65	0.64	3.81	0.51	3.86	0.44	3.74	0.39
(Cnd)	3.61	0.66	3.82	0.40	3.95	0.42	3.84	0.46
Assm (All)	2.86	0.33	2.86	0.31	2.89	0.31	2.98	0.37
(Cnd)	2.87	0.34	2.90	0.36	2.89	0.33	2.90	0.38
Sep (All)	3.04	0.42	2.99	0.40	3.08	0.41	3.07	0.27
(Cnd)	3.03	0.43	2.83	0.37	3.04	0.41	3.09	0.20
Marg (All)	2.79	0.33	2.78	0.27	2.68	0.34	2.75	0.25
(Cnd)	2.80	0.34	2.76	0.26	2.64	0.38	2.78	0.28
Accl (All)	5.08*	2.64	7.68*	4.31	5.16*	3.70	5.19*	3.36
Strs (Cnd)	5.13	2.65	7.94	4.16	6.04	3.78	6.70	3.50

Note: (All)=All subjects combined; (Cnd)=Canadian born subjects.

*p < .05.

SECONDARY QUESTIONS

Bem Sex Role Inventory: Long version vs. Short version

The long version of the Bem Sex Role Inventory (BSRI) was used in this study, and in the above analyses the Bem Sex Role Inventory refers to the long version. The long version of BSRI consists of a total of 60 items. The scales of femininity and masculinity each have 20 items out of the 60 items and the remaining 20 items are used as filler items. The short version of the BSRI consists of the first 30 items from the long version of the BSRI. Bem (1981a) states that the short version of the BSRI is psychometrically more reliable and internally more consistent. Table 19 provides the correlations for the scales between the original version and the short version of the BSRI for all subjects combined, Canadian born subjects, Indian born subjects and for these groups separated by sex. The correlations listed in Table 19 are highly significant at the .001 level. Therefore, it indicates that the analogous scales on the long and short form of the BSRI are highly correlated.

Analysis of Variance with respect to the Acculturative Attitudes:

The model of acculturation proposed by Berry (1987), is based on two fundamental issues that acculturating individuals and groups encounter. These are: (a) cultural maintenance and (b) contact participation. Cultural maintenance deals with the desire or lack thereof of the group or the individual to maintain

Table 19

**Correlation between the original and short forms of
the Bem Sex Role Inventory for the
Femininity and Masculinity Scale Scores**

	Femininity (Fm)	Masculinity (Ms)
All Subjects Combined	.90	.94
Canadian Born Subjects	.90	.95
Indian Born Subjects	.89	.91
<hr/>		
All Males Combined	.89	.92
Canadian Born Males	.89	.92
Indian Born Males	.87	.87
<hr/>		
All Females Combined	.91	.96
Canadian Born Females	.92	.97
Indian Born Females	.90	.93

*p < .001.

culture and identity while cultural participation is defined as the desire to have contact with the larger society. As previously stated, when these two central issues are posed simultaneously, a conceptual framework is generated which posits four varieties of acculturation as illustrated in Figure 1. These four varieties of acculturation are: integration, assimilation, separation, and marginalization. The Acculturative Attitudes Survey, (AAS), measures an individual's attitudes on each one these varieties of acculturation. Therefore, an individual gets a score for each one of the four acculturative attitudes.

However, Berry's (1987) model makes no provisions to indicate which acculturative attitude is the predominant one, or to suggest which one of the varieties of acculturation an individual belongs to based on his or her score on the Acculturative Attitudes Survey. As part of this research study, a method was formulated in order to categorize individuals into one of the above categories, based on their scores for the scales of assimilation and separation on the Acculturative Attitudes Survey. I will elaborate on this formulation.

Berry (1987) defines assimilation as an individual's desire to seek daily interaction with the other culture(s) and a desire not to maintain his/her identity and culture. In contrast, separation occurs when an individual places a value on holding onto one's original culture, and at the same time wishes to avoid interaction with the other culture(s). The constructs of assimilation and separation are analogous to the two fundamental issues of contact participation and contact maintenance, respectively, in Berry's (1987) model of acculturation. Therefore, a method of incorporating

the median score for the sample on the scales of assimilation and separation, and the median split method similar to the Bem Sex Role Inventory, was used as follows.

An integrated person may be viewed as one who values assimilation and separation without the desire to avoid either culture, and therefore having a score above the median for both assimilation and separation. A marginalized person may be viewed as someone who does not have any desire to maintain or participate in either culture and therefore avoids contact with both cultures, thus having a score below the median for both assimilation and separation. Similarly, someone having a score above the median for assimilation and below the median for separation may be classified as an assimilated person, while someone having a score above the median for separation and below the median for assimilation may be classified as a separated person. Subjects in this study were grouped according to the above method as follows: Integrated group, Assimilated group, Separated group, and Marginalized group. The local sample median was used for the above classification scheme.

A one way analysis of variance was carried out to examine if the above groups differ in their mean score on acculturative stress, Femininity, and Masculinity. Table 20 provides the results of these analyses. No significant differences were found in the mean scores for acculturative stress, femininity, and masculinity for all subjects combined and for the Canadian born subjects according to the above classification.

In addition to the above secondary analyses, one way analyses of variance were also carried out with subjects being grouped

Table 20

Analysis of Variance (ANOVA)
for subjects grouped according to the
Acculturative Attitudes

Indep Variab	Integrated Group		Assimilated Group		Separated Group		Marginalized Group	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Accul Stress	5.30 6.45	3.79 3.72	5.10 5.48	3.51 3.71	6.26 6.89	3.75 3.72	6.73 7.09	3.67 2.95
Fem	4.71 4.71	0.77 0.89	4.68 4.67	0.84 0.83	4.84 4.89	0.68 0.71	5.01 5.08	0.79 0.75
Masc	4.74 5.00	1.19 1.09	4.91 5.01	0.79 0.79	4.76 4.92	0.82 0.89	4.91 4.76	1.00 1.11

Note: the top row of statistics in each cell refers to All subjects combined and the bottom row of statistics in each cell refers to Canadian born subjects.

*p < .05.

according to school grade, school being attended as well as according to the ethnic labels, "Sikh" and "Canadian Sikh", in order to investigate any possible significant differences in their mean scores for acculturative stress, acculturative attitudes, and sex typing. No such significant differences were found.

SUMMARY OF PRINCIPAL RESEARCH FINDINGS

Most of the Canadian born Sikh adolescents chose "Canadian Sikh", and most of the Indian born Sikh adolescents chose "Sikh" as an ethnic self label to identify themselves. Most of the Sikh adolescents, both Canadian and Indian born, chose Sikhism as their religious preference. Ninety per cent of the Sikh adolescents are bilingual, being able to speak both English, and their mother tongue Punjabi, while there were some who also possess the ability to write the Punjabi language.

A high level of acculturative stress was found among Sikh adolescents. The mean score for the Canadian born, or second generation, male and female Sikh adolescents was found to be significantly higher than for the Indian born, or first generation, male and female Sikh adolescents. No significant gender differences in the level of acculturative stress were found for either the Canadian born Sikh adolescents or for the Indian born Sikh adolescents. The finding that Canadian born Sikh adolescents have a higher level of acculturative stress than Indian born Sikh adolescents may not be checked with existing research findings as this is a new finding.

It was also found that marginalization has a significant positive relationship with acculturative stress for all Sikh adolescents combined. For the Canadian born Sikh adolescents, it was found that marginalization has a positive and masculinity has an inverse relationship with acculturative stress for the Canadian born male and female Sikh adolescents combined. It was also found that integration has a significant positive relationship for the Indian born Sikh female adolescents. The results of the backward regression suggest that integration and marginalization are the best indicator of acculturative stress for Sikh adolescents combined. However, for the Canadian born Sikh adolescents, it is masculinity and marginalization which are the best predictors of acculturative stress.

The present study also set out to examine if Sikh adolescents have any significant difference in their level of acculturative stress and acculturative attitudes with respect to their conceptualizations of themselves as masculine, feminine, androgynous or undifferentiated based on the Bem Sex Role Inventory. It was found that Sikh adolescents classified as feminine have a significantly higher level of acculturative stress than any of the other groups on the Bem Sex Role Inventory. No significant differences were found for acculturative attitudes for any of the groups on the Bem Sex Role Inventory.

The results also indicate significant relationships between masculinity, femininity, and acculturative attitudes. Masculinity was found have a significant inverse relationship with marginalization for the Canadian born Sikh male adolescents, and a significant inverse relationship with assimilation for the Indian

born Sikh male adolescents. Femininity was found to have a significant direct relationship with separation for all Sikh male subjects combined. No such relationships were found for the Sikh female adolescents.

CHAPTER V

DISCUSSION

The primary purpose of this research study was to investigate whether a relationship exists between the constructs of acculturative stress, acculturative attitudes and sex typing, or psychological androgyny among Sikh male and female adolescents. No such studies have previously been carried out with Sikh adolescents.

In this chapter, the results of this study will be examined and compared with the existing research findings as well as making recommendations and suggestions for future research implications and directions.

This chapter is divided into three sections, entitled: review of the research findings, review of the instruments, and recommendations and projections for future research. These sections are further subdivided where appropriate.

REVIEW OF THE RESEARCH FINDINGS

Acculturative Stress, Country of Birth, and Gender:

The finding that Canadian born, or second generation, male and female Sikh adolescents display a higher level of acculturative stress than the Indian born, or first generation, male and female Sikh adolescents, is confirmed by Murphy (1965). Murphy found that mental health of immigrants may be better than that of locally born individuals in culturally pluralistic societies. Murphy attributes

this to the availability of a network of social and cultural groups which may provide support for the new immigrants during the process of acculturation. Additionally, the greater explicit acceptance of multicultural ideology may result in decreased demands for changes in the acculturating individual or group. The same may be true in the case of the Sikh community.

The Sikh community is very close knit, and is based on the extended family system. New immigrants and their families find active financial and emotional support from this network of extended families within this community. This extended family network may begin to diminish by the time of the second generation population.

The results of this study also indicate that the Indian born Sikh adolescents appear to be comfortable with a unicultural ethnic label, "Sikh", as opposed to their Canadian born counterparts, who display a preference for the bicultural ethnic label "Canadian Sikh". The bicultural label may be indicative of possible conflicting values, lifestyles and demands being faced by these individuals and thus may be related to their higher level of acculturative stress. For example, there may be peer and social pressure to assimilate by conforming to Canadian value systems and culture from the host society, while at home and within their ethnic culture the pressure may be to separate by conforming to the Sikh value system and culture. Additionally, these individuals may be in conflict as to who to turn to for support and guidance, or may not know the appropriate coping strategies. Berry and Kostovcik (1983) point out that a higher level of acculturative

stress may be related to a lack of knowledge about whom to turn to in times of conflict.

Berry (1985) also states that cognitive control is also important in terms of how one responds to stress. Those individuals who feel that they have cognitive control, or feel in charge of their life, are more likely to experience acculturation as a set of new opportunities. This may be true in the case of the Indian born sample who may feel that the host country offers them new opportunities as compared to their country of origin. The Canadian born subjects may be in conflict due to their biculturalism, and may be at a loss as to their value system, cultural loyalty, as well as their identity.

The present study also found that there are no significant gender differences in the level of acculturative stress for either the Canadian born Sikh adolescents or for the Indian born Sikh adolescents. These findings contradict a previous study which found that Sikh male adolescents display a higher level of acculturative stress than females (Sidhu, 1990), and other studies which found that, in general, females display a higher level of acculturative stress than males (Berry, Kim, Minde, & Mok, 1987; Kim, & Berry, 1985; Naditch & Morrisey, 1976).

Research findings of higher acculturative stress for females explain it in terms of possible introversion, and socialization practices stressing conformity for females. Others attribute it to being a by-product of the response style in answering questions, as it is not clear whether females actually experience greater stress than males, or whether females are more likely to report stressful experiences than males. In contrast, Sidhu (1990) found Sikh males

to be higher on acculturative stress than females. She attributes it to extroversion as well as the socialization process for the males.

The present findings of no difference in the level of acculturative stress with respect to gender among Sikh adolescents contradict the existing research findings. This further emphasizes the need for additional studies in order to clarify the above findings as well as the need for an improved acculturative stress instrument. Qualitative studies are required in order to delve more deeply into how the different ethnic groups and sexes experience acculturation and acculturative stress. However, one must be cautious when comparing the results of the acculturation and acculturative stress studies across cultures, as the experiences may not be generalizable due to differential experiences across cultures.

Acculturative Stress, Acculturative Attitudes, and Sex Typing:

With regards to acculturative attitudes and sex typing, it was found that integration and marginalization are the best predictors of acculturative stress for all Sikh adolescents combined. Marginalization and integration were both found to be directly related to acculturative stress. This is partially confirmed by Berry (1985) who states that marginalization has been associated with higher levels of acculturative stress and integration has been associated with lower levels of acculturative stress. Berry, Kim, Minde, & Mok (1987) state that:

consistently, those whose acculturation attitudes are favourable toward Integration have been found to have better mental health than those whose attitudes favour

Separation; high Assimilation attitudes are associated with an intermediate level. Most importantly, those feeling Marginalized often experience the greatest stress and serious loss of mental health status. (p.47)

Berry (1987) further states that marginalization is associated with a lack of interest in maintaining one's cultural integrity. This is usually due to enforced cultural loss and a lack of interest in association with the dominant group, often because of discrimination, and is

accompanied by a good deal of collective and individual confusion and anxiety. It is especially characterized by striking out against the larger society and by feelings of alienation, loss of identity, and what has been termed acculturative stress" (p.227).

This may partially explain the relationship between marginalization and acculturative stress found in this study.

The contrary finding that integration may also be used as a predictor of acculturative stress may be rationalized as follows. In the integration modality, one is faced with the task of balancing the demands posed by contact maintenance and contact participation which may be in conflict with each other. Not only is the individual attempting to balance these dimensions, but is also required to devise coping strategies to deal with the pressure and stress associated with this modality. This may be especially true in the case of the Sikh culture and the "mainstream Canadian culture". For example, the Sikh family structure and values are quite different from the "mainstream Canadian culture". The former values an extended family structure, family interdependence, a collective self, and an eastern religious orientation, whereas the latter values a nuclear family structure, individual independence,

individuation, and a western religious orientation. Therefore, the integration process may also contribute to acculturative stress, as is the case with marginalization, although the underlying reasons and experiences may be very different in these two acculturative attitudes.

In the case of the Canadian born subjects as a whole, a different set of predictors for acculturative stress were found. Marginalization and masculinity were found to be related to acculturative stress, and to be significantly good predictors of, acculturative stress. Marginalization was found to be directly (positively), related to acculturative stress, as above, and masculinity was found to be inversely related to acculturative stress. In the case of marginalization, the dis-identification with one's own ethnic culture for Indian males has been found by Hogg, Abrams, and Patel (1987) to be related to higher aspiration levels of Indian males, and their greater willingness to marry out of their culture, which may inevitably lead to the realization that they are distinguishably Indian, and thus, may result in confusion and stress for Indian (or Sikh) males as is expected in the case of marginalization.

The finding with regards to masculinity and acculturative stress is a new finding. It contradicts existing findings which have linked masculinity with Type A behaviour (Stevens, Pfof, Ackerman, 1984), and competitiveness and achievement motivation (Spence, & Helmreich, 1978), subsequently resulting in increased psychological stress. It is possible that the acculturative stress associated with acculturation may be elicited by a different set of stressors as opposed to general psychological stress. This inverse

relationship may be explained by the possibility that people high on the masculinity scale may be less likely to report the experience of stress due to the fact that masculinity is associated with agentic/instrumental characteristics rather than expressive/communal characteristics. Another explanation for this inverse relationship may be that masculinity is a desired characteristic in the Canadian and broader North American society. As Yager & Baker (1979) state, masculinity has a higher social utility in North American society (what has been termed as the Masculinity Supremacy Effect).

Further studies are required in order to examine and clarify the relationship between acculturative stress, acculturative attitudes, and sex typing, especially in the case of masculinity, since the finding that masculinity is related to acculturative stress is new finding.

Acculturative Stress, and Psychological Androgyny:

Bem (1974, 1979) states that sex typed individuals, masculine or feminine, have internalized society's sex-appropriate standards for desirable behaviours to the relative exclusion of the other sex's characteristics. This internalization has a marked impact upon the sex typed person's view of the world and others, self-description, expectations and attitudes, and behaviours. Non sex typed people (androgynous individuals) are freed from the need to evaluate themselves and others in line with prescriptive self-linked standards.

Bem (1974, 1981a) proposes that non sex typed or androgynous individuals are able to be more flexible and have a diverse

response repertoire of behaviour than the sex typed individuals. Therefore one may expect androgynous people to display either or both masculine and feminine behaviour, depending upon the requirements of a specific situation, versus the sex typed individuals, who are restricted to either masculine or feminine behaviour as prescribed by society, or more specifically, by the ethnic culture.

In the case of acculturation, one may expect androgynous individuals to be better adapted due to the above flexibility, as opposed to their sex typed counterparts. Thus, the androgynous individuals may be less prone to acculturative stress. Furthermore, androgynous individuals may not feel the need to be constrained by any culture, and so they may be more likely to maintain their own culture as well as participate in the host culture, thereby resulting in integration.

The subjects of this study were also grouped according to Bem's four categories of feminine, masculine, androgynous, and undifferentiated. The results of this study partially support the above premise with regards to acculturative stress. The subjects belonging to the feminine group were found to have a higher level of acculturative stress than any of the other groups based on sex typing. Feminine characteristics have been associated with expressive and communal characteristics, as well as submissiveness and conformity. This submissiveness and conformity may be contributing to acculturative stress for the feminine group by limiting their alternatives during acculturation.

An acculturating individual in a pluralistic society may be confronted with conflicting culture specific behaviour, thereby being more prone to acculturative stress. For example, what may be considered appropriate sex typed behaviour in one culture may not be considered appropriate in another. These kind of conflicting demands during acculturation may result in cognitive dissonance and subsequently acculturative stress. Even though androgynous individuals were found to have a lower level of acculturative stress, no significant difference was found between the levels of acculturative stress for androgynous and masculine individuals, or undifferentiated individuals.

Furthermore, no significant differences were found for any of the above groups with respect to acculturative attitudes. This is contrary to the above expectations. From these findings, it would be erroneous to assume that androgynous individuals are more likely to be integrated than their sex typed counterparts. An extensive review of the literature yielded no other studies dealing with the constructs of acculturative stress and psychological androgyny. Further studies are therefore needed to clarify and explore these constructs.

The preceding subsections have focused on Acculturative stress and how it may be related to country of birth, gender, acculturative attitudes, sex typing and psychological androgyny. From the above discussion, one of the implications appears to be that stress is always a negative experience which should be decreased or avoided, or that it is a pathological state of being. However, this may not be a realistic or truthful conclusion or implication. Berry, Kim, Minde, and Mok (1989) state that:

a case can be made that stress is an adaptive psychological state, insofar as it alerts an acculturating population to new situations which require action on their part; without such stress, disappearance of the cultural group (for lack of response) might be the long term outcome. Alternatively, too much stress may inhibit effective response to acculturation, leading to disintegration and eventual disappearance. Thus, as in the case of the Yerkes-Dodson Law that has established a curvilinear relationship between arousal and performance, there may be an optimum level of acculturative stress which alerts a population to impending changes and dangers, and which motivates and facilitates effective response; in contrast either too little or too much stress may prevent such long-term adaptation to the new circumstances of their lives. (p.507-508).

Therefore, it is important not to view acculturative stress only in its negative terms: its positive utility must also be recognized. What is more important is to determine the threshold level of acculturative stress for a client or a group which indicates the boundary between positive and negative consequences.

Acculturative Attitudes and Sex Typing:

The research findings also suggest that there is a significant relationship for Sikh male adolescents between their scores on the scales of masculinity and femininity, and their acculturative attitudes. Masculinity was found to be inversely related to marginalization for Canadian born Sikh male adolescents, and to assimilation for Indian born Sikh male adolescents. Femininity was found to have a significant direct relationship with separation for all Sikh male adolescents. (No such relationships were found for the Sikh female adolescents). To the best of my knowledge, there is no other research studies which have examined the constructs of masculinity, femininity, and acculturative attitudes. Therefore,

attitudes. Therefore, these are new findings and I will attempt to provide some possible rationalizations for them.

Masculinity has been directly linked with a Type A personality (Stevens, Pfof, Ackerman, 1984), behaviour valuing instrumental aspects of life (Shichman, & Cooper, 1984), and competitiveness and achievement motivation (Spence, & Helmreich, 1978), which are instrumental/agentic characteristics. These characteristics involve goal orientation, assertiveness activity, and self development, which may suggest a sense of having some direction or control in one's life. Berry (1985) states that those individuals who feel that they have cognitive control, or feel in charge of their life, are more likely to experience acculturation as a set of new opportunities and thus experience lower levels of acculturative stress. Lower levels of acculturative stress are related to lower scores on marginality, and higher scores on masculinity, as stated in the previous sections. Therefore, the level of masculinity may be related to the level of control a person feels in life. This cognitive control may be instrumental in a person's attitudes toward acculturation. Thus, this may account for the inverse relationship between masculinity and marginalization, (in conjunction with cognitive control), in the case of the Canadian born Sikh male adolescents, as marginalization is associated with collective and individual confusion, anxiety, feelings of alienation and loss of identity.

In the case of the Indian born Sikh male adolescents, the masculinity score was inversely related to their score on assimilation. It may be possible that a similar feeling of cognitive control in conjunction with masculinity may be

instrumental among Indian born Sikh males, and thus they may not feel the pressure to assimilate in their host country.

Femininity was found to be directly related to the attitude of separation for all Sikh male adolescents. Femininity is characterized by passive, weak, nurturant, socio-emotional, and conformity characteristics. Therefore, the attitude of separation may involve conformity to one's own cultural norms as opposed to assimilation and integration, which call for some degree of non-conformity to one's own ethnic culture.

The new findings of significant relationships between sex typing and acculturative attitudes require additional examination through both quantitative and qualitative studies.

REVIEW OF THE INSTRUMENTS

Acculturative Attitudes Survey:

The Acculturative Attitudes Survey is based on the model of acculturation proposed by Berry (1987). The correlation for the two cross diagonals, Integration-Marginalization and Assimilation-Separation, are significantly negative as predicted by the model. The square perimeter correlations (Integration - Assimilation - Marginalization - Separation) are quite low and therefore conform to the predictions of the model. However, further factor analysis of the instruments and items is required to determine if the conceptualization of the two fundamental dimensions and the subsequent four fold classification scheme is valid and reliable.

Although the Acculturative Attitudes Survey and Berry's (1987) model of acculturation are significantly important research tools for the assessment and conceptualization of the process of

acculturation, the practical utility of the instrument and the model must be questioned. The model and the instrument fail to make any provisions to indicate which acculturative attitude is the predominant one, or to suggest which one of the varieties of acculturation an individual belongs to, based on his or her score on the scales of integration, assimilation, separation, and marginalization. It would be an advantage to develop a revised instrument so as to be able to indicate or measure the preferred mode of acculturation for an individual. A method for categorizing individuals based on their median scores for the scales of assimilation and separation, which are analogous to the two central dimensions of the model, is suggested in chapter IV. This may also result in a shortened instrument as one will only need to include the scales for assimilation and marginalization and not the ones for integration and assimilation. The present scoring system or the one suggested, need to be further researched as to their utility, reliability and validity.

In addition, the length of the questionnaire and the double nature of many of the questions poses further difficulty as to the research and clinical usefulness of this instrument. Tonks (1990) suggests that one way around this may be to develop a shorter and more precise instrument with more clearer statements. The bicultural nature of the model may also be assessed by means of an interview which could delve more deeply into the exact nature of the choices between cultures. This may be more time and energy consuming, but it would provide a more accurate assessment of acculturative attitudes.

Berry, Kim, Minde, and Mok (1989) also state that, "unique scales were developed for each ethnic group; hence the means cannot be compared between groups" (p.198). This further stresses the need for a revised model and instrument which will allow for some cross cultural comparison for acculturative attitudes while being culturally sensitive.

Cawte Acculturative Stress Scale:

The Cawte Acculturative Stress Scale is based on the assumption that minority ethnic groups somaticize psychological stress, and therefore stress on this instrument is measured from items about psychosomatic symptomology. While this assumption may hold true, if at all, for the first generation, this may not be true for acculturated second generation individuals who may not somaticize stress and may respond to stress or acculturative stress in terms other than psychosomatic symptomology. Even though the results of this study indicate that the Canadian born subjects have a significantly higher level of stress than their Indian counterparts, the validity of this instrument needs to be further examined through qualitative data as to whether it is actually measuring acculturative stress or not. Furthermore, the generic application of this instrument to various cultures may be considered culturally insensitive and culturally invalid, as the definition of stress and acculturative stress, as well as the experience of acculturative stress, may be very different depending on the particular culture being considered. The items and the item bank may need to be revised in order to have an instrument which is culturally sensitive. Therefore, not only is there a need for an

instrument which is culturally sensitive and valid, there is also a need for testing the validity and reliability of the present instrument with regards to its utility in cross cultural research and practice.

Bem Sex Role Inventory:

The Bem Sex Role Inventory, BSRI, was designed to assess Bem's new formulations for the constructs of masculinity and femininity and subsequently the construct of psychological androgyny (Bem, 1974, 1979, 1981a). There is a short and a long version of the BSRI. The short form consists of the first 30 of the 60 items of the long version. The long form of the Bem Sex Role Inventory was used for the analyses in this study. In addition, the correlations between the long and short forms of the Bem Sex Role Inventory for the scales of femininity and masculinity were also obtained. It was found that these correlations are much higher for the Sikh adolescents than those provided for the Stanford, 1973 and 1978, normative sample. It is also clear from the above results that the two forms are highly correlated and therefore either form may be used with the Sikh adolescents.

The mean scores obtained for the scales of femininity and masculinity for Sikh adolescents in this study are similar to the mean scores provided by Bem (1981a) for adolescents and for the Stanford normative samples. The finding that Sikh females had a significantly higher score on femininity and a lower score on masculinity than Sikh males, is also similar to the above normative samples.

The above findings and the comparisons with the normative sample appear to suggest that the Bem Sex Role Inventory is a valid instrument for use with Sikh adolescents. However, one must still be cautious when using this instrument with the Sikh population or non-American samples as the instrument was originally normed on the Stanford normative sample. Tzuriel (1984) suggests that simple translations of androgyny measures developed with American samples might not be appropriate for use with non-American samples because the definition of masculinity and femininity may differ somewhat across cultures. Therefore, it is important to develop culturally sensitive and culture-specific sex role inventories such as the Israeli "BSRI" developed by Tzuriel (1984), as well as using those items which have been proven to be valid.

Furthermore, it is important to assess the androgyny and the sex role construct with the use of other sex role inventories, such as the Personal Attributes Questionnaire (PAQ) developed by Spence, J. T., Helmreich, R. L., & Stapp, J. (1974, 1975), the ANDRO scale developed by Berzin, Welling, and Wetter (1978), or the Adjective Check List (ACL) developed by Gough, and Heilbrun, (1965). The results can then be cross checked for validity of the items and the instrument. Additional studies assessing the reliability and validity of these instruments are also required for cross cultural research.

RECOMMENDATIONS AND PROJECTIONS FOR FUTURE RESEARCH:

This section suggests further recommendations and projections for future research, in addition to the ones already suggested with respect to research in the cross cultural arena.

There is a real need for the development of better instrumentation for cross cultural work. Most of the instruments and the models presently available have basically been normed on individuals from the "anglo-saxon" western populations which may not be valid for use with "non anglo-saxon" populations. The instruments used in this study were the Acculturative Attitudes Survey (AAS), Cawte Acculturative Attitudes Scale (CASS), and the Bem Sex Role Inventory (BSRI).

The Acculturative Attitudes Survey needs further revisions and needs to be standardized and its practical utility needs to be enhanced for use with cross cultural populations. The Cawte Acculturative Stress Scale is based on the assumption that ethnic minorities somaticize psychological stress and therefore it is designed to assess psychosomatic symptomology. The very assumption with regards to psychosomatic stress may be culturally insensitive and invalid and therefore the general validity of this assumption needs to be validated by means of cross validation studies with other stress instruments, as well as through qualitative studies examining the nature of acculturative stress. In addition to this, it is possible that psychological stress other than acculturative stress may also be associated with acculturation and therefore needs further examination. Furthermore, the Bem Sex Role Inventory is only one of the many sex role instruments available. The validity of the Bem Sex Role Inventory needs to be cross validated

with these other instruments in cross cultural populations as the constructs of masculinity, femininity, and androgyny may be experienced and operationalized differently depending of the culture being considered. Factor analytical studies in addition to qualitative studies of these three instruments are required to further validate their fundamental constructs as well as to enhance their psychometric utility for cross cultural research.

The process and the model of acculturation also requires further examination through quantitative and qualitative research. The generativity aspects of the first generation and their influence on the acculturation process of the second and subsequent generations requires further analyses through developmental and longitudinal studies, in order to see how acculturation may develop and change across time, life span, and generations. Other areas which have not been studied in conjunction with acculturative attitudes and acculturative stress are the areas of ethnic relations, racism and the economic factors. This should be done in order to see if they may be correlated with acculturative attitudes and acculturative stress over time. The same is true for the constructs of acculturative stress and sex typing as well as other psychological variables and constructs.

The present study, the existing knowledge base of research studies, and the ones recommended above, are valuable only so far as their practical usefulness in the counselling process can be realized and utilized. Therefore, one needs to transform the results and the implications of these studies into the counselling process, in order to help clients deal with the demands of their life. This requires the incorporation of these results into

counsellor education and training programs, as well as into the existing social and governmental agencies so that their full effect can be realized in the helping profession. This is especially true in the case of ethnic minorities. Sue (1977) found that individuals from ethnic minorities and cultures are less likely to seek and continue counselling than members of the mainstream society. Therefore, culture specific models of counselling and counsellor training programs which address the needs of cross cultural clients, and takes their help seeking behaviour into account, are required.

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APPENDICES

APPENDIX A

PARENTAL INFORMATION FORM

AND

PARENTAL CONSENT FORM

PARENTAL INFORMATION FORM

Dear Parents:

A study is being conducted by Amritpal Singh Shergill through the Department of Counselling Psychology at the University of British Columbia in conjunction with the Surrey School Board. The study is entitled "Acculturation, acculturative stress, and psychological androgyny among Sikh adolescents". Sikh students in grades 9 to 12 will be asked to answer questions about their experience of growing up in Canada. This study will take approximately 60 minutes of your child's time. The study will be conducted during regular school time at your child's school. Your child's participation in this study will not affect his/her school grades in any way. This study looks at the attitudes of Sikh youths about themselves and how they feel about both the Canadian and the Sikh (Indian) cultures. The results from this study can be used by school counsellors and teachers to understand how to help Sikh students at school and at home.

Your child's participation is purely voluntary and strict confidentiality will be maintained throughout this study. This means that your child does not have to participate but will do so only if you and your child consent by signing the bottom of this form. Your child may withdraw from this study at any time without any penalty. Your child will not be required to write his/her name on the answer sheets or in any other way identify him/her self in the study.

Should you have any questions about this research, you may call either Amritpal Singh Shergill (ph: 430-4855) or Dr. Marv Westwood (ph: 228-6457) at the University of British Columbia.

Your assistance in this study is greatly appreciated. Thank you very much.

PARENTAL CONSENT FORM

PLEASE FILL IN THIS FORM

I _____ have read the above information and I understand the procedures to be used in this study. I also understand that my child's participation in this study is purely voluntary and can be terminated at any time upon my or my child's request without any penalty.

My signature below certifies that I consent/I do not consent, to my child's participation in this study.

Name of child _____

Date _____

_____ (signature of parent/guardian)

(PLEASE RETURN TO YOUR CHILD'S HIGH SCHOOL)

APPENDIX B

PARTICIPANT INFORMATION SHEET

AND

PARTICIPANT CONSENT FORM

PARTICIPANT INFORMATION SHEET

This is a study of your experience in growing up in two cultures, Sikh and Canadian. The study is entitled "Acculturation, acculturative stress, and psychological androgyny". It requires the completion of the attached questionnaire which will take about 60 minutes.

There are four parts to this questionnaire, the first of which is some background information. The following three sections ask you questions about your ideas and preferences. There are no right or wrong responses. Results from this research study will aid counsellors and teachers in assisting Sikh students such as yourself.

Please remember, Do not write your name anywhere on the questionnaire booklet, because we wish to keep your responses anonymous. Please write your name only on the consent form at the bottom of this page.

Your participation in this study will in no way affect your school grades. Your participation in this study is purely voluntary. You may withdraw from this study at any time without any penalty. However, the mere completion of this questionnaire assumes that consent has been given by yourself and your guardian.

If you have any questions about this questionnaire, you are welcome to contact either Mr. Amritpal Singh Shergill (ph: 430-4855), or Dr. Marv Westwood (ph: 228-6457).

PARTICIPANT CONSENT FORM

I _____ have read the procedures in the participant information sheet above, and I understand the procedures to be used in this study. I also understand that I may withdraw from this study at any time without any penalty.

My signature below certifies that I consent to answering the questionnaire described above.

Date _____

_____ (signature of participant)

*** When you have completed the questionnaire, please remove this sheet from the rest of the questionnaire, fold it and hand in both it and the questionnaire to Mr. Amritpal Singh Shergill. ***

APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE

Part 1

BACKGROUND QUESTIONNAIRE

1. Name of School: _____
2. Age: _____ Grade: _____
3. Sex: _____ Male _____ Female
4. Country of Birth: _____
 Length of Residence in Canada: _____ since birth
 _____ years
5. Number of brothers and sisters: _____
6. You are child number: _____
7. Occupation of father: _____
8. Occupation of mother: _____
9. Do you describe yourself as: (mark only one)
 _____ a) Sikh
 _____ b) Canadian-Sikh
 _____ c) Canadian
 _____ d) East-Indian
 _____ e) Indo-Canadian
10. Which of the following languages do you: (Please mark those that apply to you)

<u>Language</u>	<u>Speak</u>	<u>Write</u>
English	_____	_____
Punjabi	_____	_____
Hindi	_____	_____
11. What is your religious preference? _____
 How often do you attend religious services?
 _____ a) more than once a week
 _____ b) once a week
 _____ c) once a month
 _____ d) few times a year
 _____ e) never

APPENDIX D

ACCULTURATIVE ATTITUDES SURVEY

(AAS)

Part 2

Directions

In the following pages you will find a list of statements. After reading each statement, please circle a number that fits closest to your view on the following five point scale. Read each item and indicate to what degree it reflects your own thoughts and feelings. If a statement has more than one part, please indicate your reaction to the statement as a whole,. Thank you!

Note that the terms Indo-Canadian, Indian, and Canadian are used throughout the questionnaire, and are not meant to assume that all individuals in any of these groups are the same. Please respond to these terms as they mean to you.

Strongly Disagree (SD) 1	Disagree (D) 2	Neutral (N) 3	Agree (A) 4	Strongly Agree (SA) 5
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1. Most of my friends are Indo-Canadian because I feel very comfortable around them, but I don't feel as comfortable around other Canadians.

SD	D	N	A	SA
1	2	3	4	5

2. If a parent adopts the Canadian way of child rearing the children will become spoiled and disobedient. I would adopt the traditional way of India by teaching them the virtues of obedience and respect.

SD	D	N	A	SA
1	2	3	4	5

3. These days it's not hard to find someone you can really relate to and share your inner feelings and thoughts.

SD	D	N	A	SA
1	2	3	4	5

4. If I had a choice between Canadian and Indian food, I would definitely not choose Indian food because only it can not satisfy my taste buds.

SD	D	N	A	SA
1	2	3	4	5

5. I would teach children mainly Indo-Canadian values and customs so that they will not become assimilated, but remain like children of Indian culture.

SD	D	N	A	SA
1	2	3	4	5

6. Canadian society will look after the interests of Indo-Canadians, so Indo-Canadians must not stick together and help each other to develop their own society.

SD	D	N	A	SA
1	2	3	4	5

7. I don't particularly like to wear western clothes nor do I particularly like to wear traditional clothes from India.

SD	D	N	A	SA
1	2	3	4	5

8. Dance of India is an aspect of Indo-Canadian culture that we should be proud of and introduce to other Canadians.

SD	D	N	A	SA
1	2	3	4	5

9. If I were a parent, I would not adopt the Canadian way of child rearing by encouraging independence and individuality, and instead encourage the Indian way of child rearing.

SD	D	N	A	SA
1	2	3	4	5

10. Marriage is an out-dated custom, so no one should ever get married.

SD	D	N	A	SA
1	2	3	4	5

11. When it comes to furnishing a room, if possible, I would not want to fill the room with furniture from India, because Canadian furniture are so attractive.

SD	D	N	A	SA
1	2	3	4	5

12. I find the quality of music nowadays is so bad that it's hard to find any music worth listening to.

SD	D	N	A	SA
1	2	3	4	5

13. I like going on dates because it's always worth the effort.

SD	D	N	A	SA
1	2	3	4	5

14. Because we live in Canada, we are always pressured to assimilate to Canadian lifestyle. Thus, we must not emphasize our distinct Indo-Canadian identity nor restrict our association with mainstream Canadian society.

SD	D	N	A	SA
1	2	3	4	5

15. I don't want to live near ethnics or mainstream Canadians. I want to live away from them all.

SD	D	N	A	SA
1	2	3	4	5

16. Indo-Canadians should go on dates with other Canadians, even though sometimes their parents and culture disagree.

SD	D	N	A	SA
1	2	3	4	5

17. It is necessary to have Indo-Canadian magazines. We should not learn to assimilate to the general Canadian environment by learning to appreciate only mainstream Canadian magazines.

SD	D	N	A	SA
1	2	3	4	5

18. Encouraging Indo-Canadians to stay as a separate society only hinders our assimilation into society with other Canadians.

SD	D	N	A	SA
1	2	3	4	5

19. As a parent, I would not adopt the Canadian way of child rearing by encouraging independence and individuality, while also teaching my children the Indo-Canadian virtues of obedience and respect.

SD	D	N	A	SA
1	2	3	4	5

20. Taking a course in Indian or Canadian history is not a waste of time since I feel much of a connection to the people in these histories.

SD	D	N	A	SA
1	2	3	4	5

21. Because we live in Canada we do not need to know Indian languages. We should focus our attention on speaking English fluently.

SD	D	N	A	SA
1	2	3	4	5

22. Events such as the Festival of India or Canada Day are examples of events supported by governments to keep the people quiet.

SD	D	N	A	SA
1	2	3	4	5

23. I find classical and folk music from India pleasurable. It does not cause the boredom given by listening to Canadian music.

SD	D	N	A	SA
1	2	3	4	5

24. When I have to furnish a room, I would buy any furniture from India because they look so beautiful, and also because there is so much Canadian furniture that looks out-of-place.

SD	D	N	A	SA
1	2	3	4	5

25. To be successful we must participate fully in various aspects of Canadian society, while maintaining our traditional Indian culture and heritage.

SD	D	N	A	SA
1	2	3	4	5

26. If I had a choice between Canadian and Indian food, I would choose to eat Canadian food because I enjoy it much more.

SD	D	N	A	SA
1	2	3	4	5

27. Other Canadians cannot appreciate or understand our Indo-Canadian culture such as our fine Indian dance, so it is best to keep our culture to ourselves.

SD	D	N	A	SA
1	2	3	4	5

28. Newspapers never distort reality and they should always be trusted.

SD	D	N	A	SA
1	2	3	4	5

29. While living in Canada, we can retain our Indo-Canadian cultural heritage and lifestyle, and yet participate fully in various aspects of Canadian lifestyle which come from other cultures.

SD	D	N	A	SA
1	2	3	4	5

30. Teaching our children the traditional values and customs of India doesn't create a barrier with other Canadians. Therefore, I would not bother to encourage them to adopt the values that most Canadians have.

SD	D	N	A	SA
1	2	3	4	5

31. Living in Canada as an Indo-Canadian, I would not want to know how to speak both English and my parental language from India.

SD	D	N	A	SA
1	2	3	4	5

32. We should not bother to focus our attention in developing better Indo-Canadian magazines so that we can reduce our need to read other Canadian magazines.

SD	D	N	A	SA
1	2	3	4	5

33. Having an Festival of India only emphasizes our difference, and it hinders our acceptability to other Canadians.

SD	D	N	A	SA
1	2	3	4	5

34. To be successful in Canada, we must not give up our traditional ways of India and become like workers in Canada.

SD	D	N	A	SA
1	2	3	4	5

35. I think it's okay to date like other Canadians and still not have to abandon your Indo-Canadian heritage.

SD	D	N	A	SA
1	2	3	4	5

36. I don't think that it is a good idea to encourage children to learn Canadian values and to participate fully in various aspects of mainstream Canadian society, while also teaching them the Indo-Canadian values and traditional customs of India.

SD	D	N	A	SA
1	2	3	4	5

37. Realistically speaking, Indo-Canadians must not stick together and help each other to be successful rather than trying to gain success with other Canadians.

SD	D	N	A	SA
1	2	3	4	5

38. If I had a choice, I would marry someone who was brought up in India, who knows the values and customs of our traditional lifestyle.

SD	D	N	A	SA
1	2	3	4	5

39. Listening to music is pleasurable, but the only music that I find to be noisy and unintelligible is music from India.

SD	D	N	A	SA
1	2	3	4	5

40. For students who are raised in Canada, I would encourage them to take a course in Canadian history, but not in history of India since it has no utility or value in Canada.

SD	D	N	A	SA
1	2	3	4	5

41. If I had to name a child, I would give only a name from India because it is important that the child maintains his/her Indian identity.

SD	D	N	A	SA
1	2	3	4	5

42. I feel that Indo-Canadians should not have arranged marriages like many people in India do, but that they should choose who they are going to marry like many other Canadians.

SD	D	N	A	SA
1	2	3	4	5

43. Currently, magazines reflect society's sickness. None of them are worth reading.

SD	D	N	A	SA
1	2	3	4	5

44. I wouldn't say that the enjoyment of food is a luxury that I can't afford since I have so many other problems.

SD	D	N	A	SA
1	2	3	4	5

45. If I had to name a child, I would choose only a Canadian name because having a name from India would only emphasize his/her difference with other Canadians.

SD	D	N	A	SA
1	2	3	4	5

46. Indo-Canadians should live together in a cluster to avoid the influence of other Canadians.

SD	D	N	A	SA
1	2	3	4	5

47. I can't worry about something as trivial as furniture when I have so many problems.

SD	D	N	A	SA
1	2	3	4	5

48. We're living in Canada and that does not mean giving up our traditional way of life and adopting a Canadian lifestyle, thinking and acting like most Canadians.

SD	D	N	A	SA
1	2	3	4	5

49. The relationships that I have with Indo-Canadians are not valuable, while neither are the ones I have with other Canadians.

SD	D	N	A	SA
1	2	3	4	5

50. I would encourage students raised in Canada not to take both Canadian and Indian history, because it's not important for them to know the histories of both countries.

SD	D	N	A	SA
1	2	3	4	5

51. Festival of India is an important event where Indo-Canadians can share their rich cultural heritage with Canadians from other backgrounds.

SD	D	N	A	SA
1	2	3	4	5

52. Although present society everywhere is changing so fast, it's not hard to teach children how to live and be happy.

SD	D	N	A	SA
1	2	3	4	5

53. Indo-Canadians should go out on dates with other Canadians even though that represents giving up your cultural heritage.

SD	D	N	A	SA
1	2	3	4	5

54. Reading an Indo-Canadian newspaper can provide both news of India and of the world and it makes reading other Canadian newspapers unnecessary.

SD	D	N	A	SA
1	2	3	4	5

55. If I had to name a child, I would give him/her both a name from India and a Canadian name.

SD	D	N	A	SA
1	2	3	4	5

56. Modern society has lost its values; thus it doesn't make sense to teach children anything about values.

SD	D	N	A	SA
1	2	3	4	5

57. Since it's not important to know what's happening in India and in Canada, both Indian and Canadian newspapers need not be read.

SD	D	N	A	SA
1	2	3	4	5

58. It was not an important step for Indo-Canadians to have our magazines; who cares that we can now read magazines about both Canada and India?

SD	D	N	A	SA
1	2	3	4	5

59. I wish we didn't have to worry about names because they all have cultural or ethnic ties to them.

SD	D	N	A	SA
1	2	3	4	5

60. Indian classical and folk dance is not worth learning when there are so many other acceptable Canadian classical and folk dances.

SD	D	N	A	SA
1	2	3	4	5

61. We Indo-Canadians should join together and participate in organizations which represent our interests in Canada, but we also should actively participate in other Canadian organizations.

SD	D	N	A	SA
1	2	3	4	5

62. I would never think that any classical or folk dance is just another example which reveals the decadent nature of human beings.

SD	D	N	A	SA
1	2	3	4	5

63. I enjoy listening to both Indian and Canadian music.

SD	D	N	A	SA
1	2	3	4	5

64. To maintain our Indian heritage in Canada, we must concentrate our efforts in maintaining and teaching our Indian languages rather than English.

SD	D	N	A	SA
1	2	3	4	5

65. I am disturbed by having to worry about lifestyle and whether we are like Indians or Canadians.

SD	D	N	A	SA
1	2	3	4	5

66. I want to wear western clothes, because I prefer not to wear the more traditional clothes of India and show my ethnic background.

SD	D	N	A	SA
1	2	3	4	5

67. Canadians are not genuinely interested in traditional Indian culture, so we should promote Indian culture only amongst ourselves.

SD	D	N	A	SA
1	2	3	4	5

68. It does not matter if Indo-Canadians live together in a cluster, since it does not hinder our adaptation in Canada.

SD	D	N	A	SA
1	2	3	4	5

69. It's never hard to work with other people since most people are interested in something more than their own selfish gain.

SD	D	N	A	SA
1	2	3	4	5

70. I don't feel that a good coordination of Indian and Canadian furniture can make my home look very attractive.

SD	D	N	A	SA
1	2	3	4	5

71. I don't find it hard to get involved in organizations because they never make me feel so alienated.

SD	D	N	A	SA
1	2	3	4	5

72. Politicians very rarely use national pride to exploit and to deceive the public.

SD	D	N	A	SA
1	2	3	4	5

73. It is not ridiculous for Indo-Canadians to live together in a cluster; we shouldn't live in amongst and like other Canadians.

SD	D	N	A	SA
1	2	3	4	5

74. Reading Canadian newspapers can provide all the relevant news, and it makes reading Indian newspapers unnecessary.

SD	D	N	A	SA
1	2	3	4	5

75. Eating both Canadian and Indian food is something that should be avoided.

SD	D	N	A	SA
1	2	3	4	5

76. Most of my friends are not Indo-Canadians because they are not as enjoyable as other Canadians.

SD	D	N	A	SA
1	2	3	4	5

77. I often feel helpless because I can't seem to express my feelings and thoughts into words.

SD	D	N	A	SA
1	2	3	4	5

78. For students who were raised in Canada, I would not encourage them to take a course in Indian history, but in Canadian history since there isn't much worth learning about India.

SD	D	N	A	SA
1	2	3	4	5

79. I would rather wear traditional Indian clothes and not have to wear western clothes just because I am in Canada.

SD	D	N	A	SA
1	2	3	4	5

80. I think that it's okay for families to arrange marriages, but the people getting married should agree to the choice of their partners.

SD	D	N	A	SA
1	2	3	4	5

APPENDIX E

SCORING SHEET FOR ACCULTURATIVE ATTITUDES SURVEY

SCORING SHEET FOR ACCULTURATIVE ATTITUDES SURVEY

I.D.# _____
SEX _____

SCORING INSTRUCTIONS

Please note that the items under "P" denote positive wording and under "N" denote negative wording. Therefore, negative items are to be scored in reverse.

Write down the score for each item on the four scales beside the item number. Add up all the scores for each of the four acculturative attitudes: Assimilation, Integration, Marginalization, and Separation. Then divide the total score for each acculturative attitude by the number of items answered for the corresponding scale, to obtain the final score for each scale. Write this number in the blank space corresponding to the appropriate scale.

ACCULTURATIVE ATTITUDES SURVEY (AAS)

Assimilation

		Integration		Marginalization		Separation	
*P	*N	*P	*N	*P	*N	*P	*N
16	9	8	7	10	3	1	4
18	17	25	19	12	13	2	6
21	23	29	31	15	20	5	11
26	24	35	36	22	28	27	14
33	30	51	49	43	44	38	32
40	34	55	50	47	52	41	37
42	45	61	57	56	62	46	39
60	48	63	58	59	69	54	53
74	73	68	70	65	71	64	66
76	79	80	75	77	72	67	78

Note: * P = Positive wording
* N = Negative (reversed) wording

Integration _____ Assimilation _____
Separation _____ Marginalization _____

APPENDIX F

BEM SEX-ROLE INVENTORY

(BSRI)

BEM INVENTORY

DIRECTIONS

On the opposite side of this sheet, you will find listed a number of personality characteristics. We would like you to use those characteristics to describe yourself, that is, we would like you to indicate, on a scale from 1 to 7, how true of you each of these characteristics is. Please do not leave any characteristic unmarked.

Example: sly

Write a 1 if it is never or almost never true that you are sly.

Write a 2 if it is usually not true that you are sly.

Write a 3 if it is sometimes but infrequently true that you are sly.

Write a 4 if it is occasionally true that you are sly.

Write a 5 if it is often true that you are sly.

Write a 6 if it is usually true that you are sly.

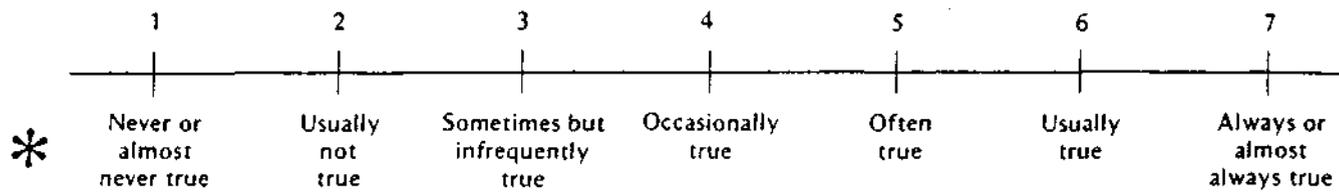
Write a 7 if it is always or almost always true that you are sly.

Thus, if you feel it is sometimes but infrequently true that you are "sly," never or almost never true that you are "malicious," always or almost always true that you are "irresponsible," and often true that you are "carefree," then you would rate these characteristics as follows:

Sly	3	Irresponsible	7
Malicious	1	Carefree	5

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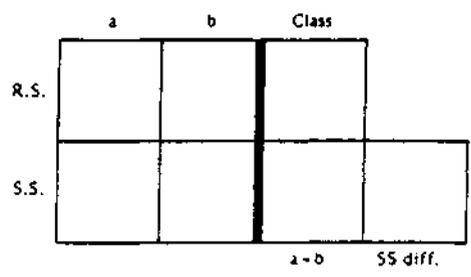
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Defend my own beliefs	
Affectionate	
Conscientious	
Independent	
Sympathetic	
Moody	
Assertive	
Sensitive to needs of others	
Reliable	
Strong personality	
Understanding	
Jealous	
Forceful	
Compassionate	
Truthful	
Have leadership abilities	
Eager to soothe hurt feelings	
Secretive	
Willing to take risks	
Warm	

Adaptable	
Dominant	
Tender	
Conceited	
Willing to take a stand	
Love children	
Tactful	
Aggressive	
Gentle	
Conventional	
Self-reliant	
Yielding	
Helpful	
Athletic	
Cheerful	
Unsystematic	
Analytical	
Shy	
Inefficient	
Make decisions easily	

Flatterable	
Theatrical	
Self-sufficient	
Loyal	
Happy	
Individualistic	
Soft-spoken	
Unpredictable	
Masculine	
Gullible	
Solemn	
Competitive	
Childlike	
Likable	
Ambitious	
Do not use harsh language	
Sincere	
Act as a leader	
Feminine	
Friendly	



APPENDIX G

SCORING SHEET FOR THE BEM SEX-ROLE INVENTORY

BSRI
Scoring Guide

Column 2		b	a		b	a		b	a		b	a		b	a		b	a		b	a		b	a		b	a		
Column 3																													

For Short Form, stop here.

(over)

BSRI
Scoring Guide

Column 1	b	a		b	a		b	a		b	a		b	a		b	a		b	a		b	a		b	a	
----------	---	---	--	---	---	--	---	---	--	---	---	--	---	---	--	---	---	--	---	---	--	---	---	--	---	---	--

DIRECTIONS: Line up this scoring guide with the response boxes in Column 1 and total the entries for "a" responses; repeat this procedure for responses in Columns 2 and 3.

Put this total down, divide it by the number of responses (20 for the Original Form, 10 for the Short Form, *less any omissions*) and enter the resulting quotient in the box labeled "R.S." and "a."

Next total the entries in the boxes adjacent to the "b"s on the scoring guide; be careful to use the correct column each time. Divide this total by the number of "b" entries and enter the result in the "R.S." box labeled "b."

Repeating these tabulations and calculations will insure accuracy. If you use the Short Form, be sure to stop counting at the point indicated in Column 2.

(over)

APPENDIX H

CAWTE ACCULTURATIVE STRESS SCALE

(CASS)

Part 4

HEALTH-RELATED QUESTIONNAIRE

Please answer Yes or No to each of the following questions by circling the appropriate letter.

- | | | | |
|-----|---|---|---|
| 1. | Do you have pains in the heart of chest? | Y | N |
| 2. | Do you constantly belch a lot after eating? | Y | N |
| 3. | Do you constantly suffer from bad constipation? | Y | N |
| 4. | Do your muscles and joints constantly feel stiff? | Y | N |
| 5. | Is your skin very sensitive or tender? | Y | N |
| 6. | Do you suffer badly from severe headaches? | Y | N |
| 7. | Do you often have spells of severe dizziness? | Y | N |
| 8. | Do you usually get tired and exhausted in the morning? | Y | N |
| 9. | Do you wear yourself out worrying about your health? | Y | N |
| 10. | Do you usually have great difficulty in falling asleep or staying asleep? | Y | N |
| 11. | Do strange people or places make you afraid? | Y | N |
| 12. | Do you wish you always have someone at your side to advise you? | Y | N |
| 13. | Do you usually feel unhappy and depressed? | Y | N |
| 14. | Do you often wish you were dead and away from it all? | Y | N |
| 15. | Does worrying continually get you down? | Y | N |
| 16. | Are you extremely shy or sensitive? | Y | N |
| 17. | Does it make you angry to have anyone tell you what to do? | Y | N |
| 18. | Do people often annoy or irritate you? | Y | N |
| 19. | Do you often shake or tremble? | Y | N |
| 20. | Do you often break out in a cold sweat? | Y | N |

(Note for Researcher's use only: Total the number of Yes' and No's to obtain the final score.)

APPENDIX I

FOLLOW-UP SHEET

Thank you!!! for participating in this survey, as it can not be done without the support of people like you.

If you would like some more information on the goals and outcomes of this survey, please feel free to contact Amritpal Singh Shergill, by leaving a message at 430-4855, and I will be pleased to provide you with all relevant information. You may also contact me at the following address:

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You may tear this page off and keep it if you wish.